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ARTICLE

Learning to care for Dangaba

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Abstract
In a Kimberley place-based cultural story, Dangaba is a woman whose Country holds poison gas. Her story shows the importance of cultural ways of understanding and caring for Country, especially hazardous places. The authors contrast this with a corporate story of fossil fuel, illustrating the divergent discourses and approaches to place. Indigenous and local peoples and their knowledge, cultures, laws, philosophies and practices are vitally important to Indigenous lifeways and livelihoods, and critically significant to the long-term health and well-being of people and place in our locality, region and world. We call for storying and narratives from the pluriverse of sociocultural voices to be a meaningful part of environmental education and to be implemented in multiple places of learning. To know how to hear, understand and apply the learnings from place-based story is to know how to move beyond a normalised worldview of separation, alienation, individualism, infinite growth, consumption, extraction, commodification and craving. To know how to see, feel, describe and reflect upon experience, concepts and practice is to find ways to move towards radical generosity, mutuality of becoming, embodied kinship, wisdom, humility and respect.

Keywords: Indigenous knowledge; environmental education; worldview; Indigenous lifeways; decolonisation; past-presence

Introduction

Indigenous peoples and their knowledge, cultures, laws, philosophies and practices are not just important to Indigenous lifeways and livelihoods — but are also critically important to the long-term health and well-being of people and places in our localities, regions and worlds. In this paper, we build an argument for Indigenous and local knowledge to be the heart of environmental education, as it was in Australia, New Zealand and the Americas long before colonisation.[1] We assemble the case that by restorying environmental learning, we begin to transform whole education systems. What if systems and teachers prioritise learning to see, to hear, to feel, to describe and to acknowledge cultures in context? And what if educators recognise that learning to perceive, sense, engage with and respond to ecological families or place-based more-than-human kin is a primary concern? We ask, what would it be like if the primary foundation of education is to understand worlds as multiple place-based cultural voices speaking of relations, perceptions, sensualities and experiences? What if this precedes or accompanies learning to read and write on

paper or technology? As a group of authors, we contend that comprehending worldviews and existence-scapes (including ontological, epistemological and axiological aspects) — and how they operate is a basic critical skill. Learning from and with local or Indigenous peoples, stories and histories is an important way to do this.

A warning to humanity to protect Indigenous lifeways has been issued, as follows:

> Supporting Indigenous Peoples and local communities to secure and strengthen collective systems of tenure, governance, and ways of life is one of the most powerful ways to safeguard ecosystems from intensive and/or unnecessary development and to maintain the biocultural integrity of the territories in which ILK [Indigenous and Local Knowledges] is embedded (Fernández-Llamazares *et al.* 2021, p. 156).

Valuing Indigenous lifeways is essential because:

> The cumulative, diverse, interacting, and pervasive pressures of the colonial and globalized post-colonial world continue to drive the loss of ILK systems worldwide, despite their resilience and adaptability. Such threats can only be addressed effectively through urgent and concerted efforts that foster transformative change, tackling deep structural interventions, systemic barriers, and leverage points in the current systems of decision-making . . . (Fernández-Llamazares *et al.*, 2021, p. 160)

This shows that through the support of Indigenous and local groups, educators, scholars and learners can properly act through regenerative education, learning and sharing within the scope of education (Wooltorton *et al.* 2022). We recognise that biodiversity loss reflects a loss of Indigenous and local knowledge systems, which hold the worldviews, cultural, spiritual and practical knowledge to sustain and regenerate natural ecosystems (Poelina *et al.* 2022).

"Water is life, Land is our first teacher" (Tuhiwai Smith *et al.*, 2019, p. 1). These foundational, decolonising ideas recognise Indigenous presence and relationship with those waters and lands and acknowledge that in Australia we all live in Indigenous lands and stories (McKnight, 2016). Increasingly, peoples from across the planet are showing how their lands are animate (Harding, 2006, 2022) and responsive (Kurio & Reason, 2022; Reason & Gillespie, 2023). There is mounting evidence of arcane place connection everywhere (Ghosh, 2021). Decolonisation is a repudiation of all forms of colonialism and continuing colonisation, including development and ideologies that reject free, prior, informed and continuing consent by Indigenous and local communities (United Nations, 2011). This position may necessitate rejection of government-sponsored "developments," and more broadly, refusal of extractive neoliberal approaches and consumer aspirations.

As authors, we support the storying of local knowledge systems and Indigenous peoples' laws and culture to learn, share, promote and protect and form kinship with environments. The First Laws of Indigenous peoples are ancient; they are the law of the land and have emerged from the deep relationships that Indigenous peoples have with living worlds and continue to guide Indigenous ethics and practices. The laws and cultures of Indigenous peoples are unique to the peoples and places from where they have emerged. They have been woven through the relationships people have with the land, living waters, spirituality, non-human kin and each other for centuries. Lead author, Anne Poelina, advocates for Indigenous Australians to have a key role in co-designing renewed education systems, to centre place-based Indigenous knowledge and ways of knowing, being and doing (Poelina, 2021).

In this environmental education context, the notion of pluriverse is significant, by which we mean multiplicities of place-based sociocultural voices of relational ontologies. These meanings reach for sustainability and justice in multiple ways, to frame healthy, healing, regenerative ways of living, learning, doing and being (Escobar, 2016; Kothari *et al.* 2019). As Anderson (2021) explains, we need to extend our horizons of possibility and envision more ecologically responsible,

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more humane modes of life. Reflecting on the lifeways of innumerable non-moderns including ancient Egyptians and living Indigenous cultures the world over, we know it is possible to live and thrive in healthy, caring ways of being human in living worlds. Stories from the pluriverse of cultures and societies show us how. In doing so, we contribute to the further development of pedagogies of responsibility (Martusewicz, 2018) for an ecojustice education.

In this paper, the authors combine their lived experiences, knowledge and wisdom. We first draw attention to the linked problems of climate change, biodiversity obliteration and destruction of Indigenous and local knowledge. Locating the problem broadly within the education system and the local/global need for decolonisation of society (Tuhiwai-Smith, 2021), we call for a revolution in education to transform towards sustainable lifeways. We seek an education that serves people and planet, an education that meets the realities of the environmental issues both people and planet are facing. We explore two approaches to sustainability: a corporate story perspective, and a First Law story. Finally, acknowledging we are dealing with complexity, we contrast these ideas, regenerating a collective wisdom for society and environmental education.

Climate change and biodiversity obliteration

The planet is already witnessing and experiencing spiralling climate derangement leading to wars and disruption across the world. Floods, sea level rise and droughts are resulting in vastly increasing numbers of climate refugees while fires imperil people, ecosystems, property and economies. This shows the critical need to value Indigenous and ancient wisdom and practices for sustaining humanity and planetary well-being (Turnbull & Poelina, 2022). In doing this, we decolonise our own minds, hearts and hands at the same time as our educational, political and economic systems. As individuals and collectively, we become free to think, feel, be and act differently and potentially otherwise (Paradies, 2020).

In relation to climate change and the Anthropocene more broadly, Bruno Latour makes the point that this recent global era is the first time in world history that a narrowly defined economy has been the purpose of existence (Latour, 2017, 2018). In the case of the West, a neoliberal mainstream is hegemonic, which sees economy as "common sense." Many of us in the West understand our societal culture by way of media, schooling and participating in the global system of economic distribution. Because of this economic model, for a great many people in the West, the world is no longer sacred. The ground we walk on and our waterways are no longer commonly respected as animate, sentient or responsive, scintillating with the sacred shimmer, and hopping with the holy hum of life. As humans, many of us in the West no longer understand our "response-ability," or our ability to respond to the communicability, sapience and animacy of our places and species (Haraway, 2008). As authors of this paper, we see this as a fundamentally problematic worldview that diverges from animism as normative consciousness, which is a strong tendency for humans to experience all aspects and elements of our worlds as alive and communicative. These are ways of knowing and being that have characterised our species throughout the vast majority of our existence (Schrei, 2020). Even today, young children tend to consider "things" living and conscious, while modern adults adopt animistic perspectives in times of uncertainty, while also imbuing personhood to that which we are most familiar with — plants we grow, cars we love, computers we use (Bird-David, 1999). In other words, aspects of the world that we form kinship with.

Education needs a revolution

Nations are addressing climate change in a range of ways. One solution is to learn an Indigenous, relational way of understanding life and place. This allows Country[2] to become a central teacher through the story of place. Much like the relationality of place and its collective agency, from this

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perspective, environmental education includes actively regenerating First Law stories and breaking free from the colonial shackles of the current education paradigm; a paradigm that has prevailed in colonised nations for centuries.

Substantial literature demonstrates that environmental education needs transformation (for example Cajete, 2017; Hart & White, 2022; Whyte, 2019) and the renewed pathway requires Indigenous collaboration and leadership (such as Williams, 2021; Wooltorton *et al.*, 2022). In the Global North, learning systems need to guide individual and socio-economic transformation towards healing, multi-species justice and planetary well-being. Therefore, we need to explore how to decolonise our practices so that Indigenous Peoples and Indigenous First Law stories influence and transform personal, community and systemic change. There is no doubt that in colonised nations, education is a significant part of the ongoing process of colonisation. Co-author, Paradies writes:

> In CANZUS settler-colonial societies, interest in colonisation is often focused on relatively distant colonial pasts where Indigenous peoples were 'displaced' with relatively scant attention paid to ongoing colonial presence in which systemic, structural, physical, epistemic, and ontological violence continue to oppress, assimilate, and eradicate Indigenous peoples' . . . (Paradies, 2020).

In *Pedagogy of the Oppressed*, Freire (2000) describes education as the way people deal creatively and critically with reality and discover how to transform their world. He advocates critical consciousness through learning to perceive economic, social and political contradictions, and to take action to transform the oppressive elements of reality. Authentic education enables understanding of the contradictions, addictions, tensions, doubts, fears, hopes, misplaced longings and postponed dreams that characterise a colonised cultural existence. The logic of domination is complex, involving race, class, language, culture and gender configurations. The humanity of both oppressed and oppressor needs to be co-liberated together, through a genuine dialogue as epistemological relationship. Freirean dialogue is a social process of learning and knowing, while mutually supporting each other in co-emancipation.

Regenerative education broadens Freire's critical and creative education. It prioritises direct sensate experience, collectivity, ways of knowing, being and doing, narrative, wisdom and conceptual-practical learning with place. Regenerative education uses transformative learning, description, justice and ways of knowing and responding to sentient, animate places (Poelina, Wooltorton, *et al.*, 2020). An excellent example of this is Campbell (2022) who in his book: *Total Reset*, uses Indigenous and place-based knowledge as a foundation for reorienting towards a holistic lifeway.

Pluriverse

Since the concept of sustainable development gained currency in 1972 (Huckle, 1991), critical thinkers in the West have critiqued the heart of the idea. They called for new pathways beyond crises already evident to those prepared to look beyond Eurocentrism. These authors asked key questions such as what is to be sustained, and what comes after development? This position was called post-development (Sachs, 2017), and is one of the streams in a pluriverse of worldviews.

Our Western systems of education assure us that the material world is objectively knowable and explicable through broad reference to universal laws of nature, validated by the dominant sciences. We are taught to believe that things exist as free-standing objects in a fixed material arrangement within deterministic relationships. This is a perspective based on Europatriarchy which sees things as binary, either/or. In this view, it is mind or body, emotion or reason, global or local, nurture or nature and masculine or feminine (Salami, 2020). Europatriarchy continues to

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serve the interests of colonisers and corporate greed. In his ontological history of the West, Anderson (2018) shows that the so-called "universal" paradigm was never a full story, rather, there exists a pluriverse[3] of narratives and worldviews founded upon the inter-relationality of all things. The movement towards a pluriverse subverts the modernist pretence of one universal knowledge system. For example:

> Many words are walked in the world. Many worlds are made. Many worlds make us. There are words and worlds that are lies and injustices. There are words and worlds that are truthful and true. In the world of the powerful there is room only for the big and their helpers. In the world we want, everybody fits. The world we want is a world in which many worlds fit. (Kothari *et al*., 2019, dedication; cited from the Fourth Declaration of the Lacandon Jungle (1996), Zapatista National Liberation Army)

In the preface to their book *Pluriverse: a post development dictionary*, Kothari *et al.* (2019) note that a transcultural collection of concepts, practices and worldviews from around the world to challenge the Western, modernist ontology of universalism, has been missing. This would show the multiplicity of possibilities, a pluriverse of ideas, dreams and hopes. Through this perspective in rural Costa Rica, Korsant (2022) explains that students are nurtured as "re-creators," learning to disturb environmental/human binaries by complicating adversarial positions such as neoliberal elitism. A pluriversal perspective serves local interests through a critical and nuanced pedagogical practice, strengthening opportunities for socioenvironmental justice. It is critical, engaging, experiential, embodied and practical, and focused on the non-human by decentring the human.

In the next section, we introduce two sustainability perspectives that are conceptually very different. Understanding these different sustainability models necessitates critiquing the way society operates, particularly political and economic values, and the ways we accept or act on premises that we may not even fundamentally agree with.

Weak sustainability

To illustrate weak sustainability, we produced a fictitious 300-word statement from a made-up global corporation claiming adherence to the UN's Sustainable Development Goals.

Annual sustainability statement by the comprehensive energy chairman

> Comprehensive Energy strongly condemns the unprovoked Russian invasion of the Ukraine, and its horrific impact on food distribution across the world. The world community has for years recognised the likelihood of oil wars as fossil fuel extraction costs increase. However, we at Comprehensive Energy are shocked by its global economic impact. Of course, our priority is ensuring the safety of our own staff and our financial security. We have many billions of dollars invested that required us to immediately amend our Russian partnerships. We are confident of a strong resolution, as conflict precedes and fosters innovation. As a global corporation, we contribute significantly to the international relief effort to support those impacted. Our commitment to sustainable global futures is clear and resolute.
>
> Comprehensive Energy is on track towards extraordinary profit, for the benefit of our shareholders and our global customers' needs for low-carbon energy. We are critically aware of the urgency of climate change, and we face this head on by actively contributing to a net-zero world, recognising that together we must all stop adding carbon to the atmosphere. We actively support the goal of the UN Paris Agreement: to ensure the average global temperature increases remain below 1.5° Celsius.

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> Comprehensive Energy is a global sustainability leader, powering advancement in every corner of our magnificent planet. We lead strategic change and technological innovation encompassing equity, diversity, environmental responsiveness, and human rights. Sustainability encompasses our entire operation in the communities our operations are located – offering well-paid local employment, skills and community development, education, and transport infrastructure. Our gold-standard reputation for contributing to the integration of remote Indigenous communities, including successful socio-economic outcomes, results from decades of culturally relevant experience. Comprehensive Energy is a powerful, trustworthy corporation with an outstanding track record of delivering the means to obtain the clean, green, justice-oriented future we all deserve.[4]

Comprehensive Energy's statement is familiar to many of us, as this discourse has dominated mainstream development ideals in the West, particularly Australia, for decades. Their claims of innocence, progress, awareness, ethical excellence, social licence, justice, world leadership, economic growth, net-zero carbon impact, local jobs and Indigenous partnerships have long been critiqued (Poelina, Brueckner, *et al.*, 2020). However, governments and corporations continue to receive popular backing despite the population being aware of these matters. This seems to be a problem of one worldview, as if there are no other ways to live; as if there is no way of existing without damaging our rivers, places, regions and worlds, along with the stories, language, cultures and worldviews that protect them.

The corporate story is "normalised" by a worldview of separation and disconnection. For example, there is an English language meaning for the term: *environment* as non-human territory, implying humans live elsewhere but may visit and perhaps stay awhile. The business-as-usual worldview also values competition, individualism, privatisation, economic growth, consumption, hierarchy, patriarchy, extraction and sometimes, various supremacist positions (Springer, 2016). Their story makes sense only within a logic of oppressor/ oppressed, a colonial rationality made acceptable because it powers energy-dependent lifeways of the West. They use a business model that enables them to keep making massive profits, while dominating Indigenous lives and more-than-human systems and futures for all beings.

The Corporation claims co-complicity in this predicament by writing: "together we must all stop adding carbon to the world." Their final statement illustrates greenwashing: "... with an outstanding track record of delivering the means to obtain the clean, green, justice-oriented future we all deserve." To claim that a fossil fuel company provides the way to justice is like saying economic growth can achieve the sustainable development goals, offering a mixture of nationalism with wealth chauvinism.

Strong sustainability

Next, we attend to an Indigenous First Law story about fossil fuels, from the Kimberley region. Indigenous culture, story and local knowledge are underpinned by the belief that worlds are interconnected within a relational cosmos where all is alive, conscious and agential. Storytelling is a way of validating the experiences of Indigenous epistemologies and pedagogies. Relational stories are central to Indigenous culture and worldviews, which are conveyed through the evocation of story as teacher, keeper of wisdom and learning pathway. Relational pedagogies and practices are significant in environmental education, for example through the work of researchers and practitioners using perspectives that are post-qualitative (Poelina *et al.*, 2022), posthuman (Braidotti, 2019); and feminist environmental humanities (Rooney & Blaise, 2023). We ask that readers be attuned to relationships in this story.

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Story of Dangaba

Poelina *et al.* (2014) share in film,[5] the "Story of Dangaba," a First Law Story set in the Kimberley region, on Nyikina Country. In the film, Anne Poelina says:

> *A long time ago, our people told the story of a creature by the name of Dangaba. Dangaba, in the story, was a very old woman who would travel through the countryside, looking for people. When she would see the people, she would call to them and they would come to her. As they would sit around and talk, Dangaba would move to the wind side and the people would say, "Come down old woman, come and sit with us."*
>
> *And she'd say, "No, I'm fine. I'm sitting up here on the hill. I'm watching over all of you people".*
>
> *And so, when the people started to rest, when it was getting towards the evening, Dangaba would sit up on the hillside, in the wind and fart all over the people. And the gas would spread all over the people and they would die. And then as more and more of these events happened, people began to take notice. One day they saw Dangaba coming and they knew that she was up to her tricks. And so Dangaba was banished by the people back into the countryside. Dangaba went back into the hillside, into the hill country of Nyikina people and she is still resting there today.*

In the film, Edwin Mulligan, a Nyikina Walmajarri man, speaks about his relationship to this story.

> *When they [we] talk about the spirit of the land, like Dangaba, she's from the Country and she's part of the land and she's alive and well. When we go out Country, we can feel her presence as much as she can feel ours. She can see us; she can hear us and she know what's going on.*
>
> *So she came to me in a dream. She held my hand and walked me through the Country, speaking to land as if the land was listening. She came to me like a mother. And as a son, I looked up to my mother. She showed me so much about Country, the care and the need of caring and the need of loving the land as much as the land loves us.*

In the film, Anne Poelina reflects on the meaning of this First Law story:

> *This story has very big meaning. This is a story of a warning from our old people from Bookarrarra, the beginning of time. Now the story about Dangaba talks about poison gas. Gas that is located on our Country. Gas that is waiting beneath the ground. And so we need to listen to these stories. We need to learn from our elders about the meaning of these stories.*
>
> *This story from Dangaba, from Bookarrarra, is a story about gas, about poison gas. And what we find today, is that now mining companies want to come and explore for this gas. There is a lot of information that we still do not know about shale gas and about fracking. We need to understand the story of shale gas so that when we make decisions about exploration or mining of shale gas, we have all of the information.*
>
> *And so what we are saying to our people, to other Aboriginal people where shale gas or fracking may be an issue, we are saying, we need to get all of the science. We need to get the Western science and we need to get the traditional knowledge and we need to bring them together so that we have a strong picture about what could happen to the country. What could happen to our land. What could happen to our water. What could happen to our food security. So, it's very important for Aboriginal people and non-Aboriginal people to really understand the story of fracking.*

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At the conclusion of the film, storyteller Mulligan leaves us with a provocation:

> *They* [developers] *say, "We're going to look at country." . . . They see a Country as commodity. Things that they can grab from the Country to make things like mineral. There's a need of getting mineral from the dirt, from oil, copper, uranium, diamond, gold. It's all there for the taking, according to the white man.*
>
> *There's some that you can take, but there's things that should not be touched. The land will teach you all that kind of thing. That's why dreams come to people and tell them, "There's only so much you can take." See they shouldn't be grabbing a lot of things, but rather giving back to the people of the land.*
>
> *Despite the planned destruction to Country from fracking, Edwin closes the film and story, through empathy, and ethics of care, concluding that we need to educate about the need for people to develop an ethics of care, he articulates his sympathy in his closing words, "Make you feel sorry. I feel sorry for them".*

The story is about one of the many spirit-creator ancestors who continually (re-)constitute country. Dangaba is a trickster who claims to be watching over people but is, in fact, seeking to kill them. Yet, unlike perceived threats in modernity, which we attempt to eliminate or "manage away" through compliance, coercion, control and conformity, Dangaba is acknowledged by the local people as an important aspect of country, an entity that is present, aware, sensate and knowledgeable; a mother who is willing to teach her children about care for, and love of, country. While she may be poisonous gas, and even though Dangaba was banished into the countryside, there is no sense that we want to expunge her from country. On the contrary, Dangaba is an important manifestation of country that can appear to us in dreams and from whom we can learn much via metaphor, magic, myth, mystery and the mystical. Disturbing Dangaba's resting place (that is, natural gas deposits deep in the ground) is dangerous and can make country, and people who are part of country, sick. Dangaba is someone who should not be touched or taken from.

In multiple ways, the Dangaba story is one of relationship and relationality. We care for relations and deeply respect their capabilities, recognising their potential since we have much to learn. Environmental education has much to say about relational learning, from early childhood to adulthood. Response-ability — an ability to respond to the invitations of people and places — is a way of being in relationship (Bawaka Country *et al,* 2019). It is a way of learning that is focused on the child developing relationships with places and more-than-human beings in their surroundings (Blaise & Hamm, 2020; Martusewicz, 2018).

Instead of extractivism (that is, grabbing a lot of things), we should give back to the people and the land (for example, through radical generosity; the mutuality of co-becoming; embodied kinship; grounded wisdom; humility; and respect). We may feel sorry for those who don't understand this Law of the living cosmos and who instead inadvertently accept the perspectives and approaches of colonialism, including phenomena such as commodification, comparison, cruelty, condemnation, cynicism and craving.

The importance of First Law Stories

Storytellers Poelina and Mulligan share the importance of First Law stories to show how across generations and time, their people designed and transferred Indigenous local knowledge through a style of educating as seen through the Dangaba story. First Law stories are "holistic education," encompassing relationships among everyone and everything around us. Many First Law stories are told through non-human kin; animals, birds, living waters and serpent beings, creating a space between fiction and facts. A holistic education system that is self-defining, yet simultaneously co-creating knowledge, for the greater good of everything around us to sustain peace, balance and harmony.

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Poelina, as a storyteller in the Dangaba story, knows the power and need to bring both teacher and learner together, to understand the "meaning" of the story. This meaning strengthens regenerative learning through First Law stories to support the development of people using a bottom-up, rather than a top-down approach: "we not me". To use Mulligan's storying, his words describe his relationship with Dangaba, his country and empathy for the "developers" and he lays down essential meanings. If we as teachers, scholars and researchers understand these meanings, and how to share and learn with others, we are creating place-based footings for education and learning systems. Through these First Law stories, we learn and consider values, ethics and virtues. All First Law stories involve human to human and non-human to human, to co-create and regenerate this collective wisdom informed by living systems.

Stories are, as suggested by Cajete (1994, 2017) and Phillips & Bunda (2018), a foundation for human learning and teaching. From our point of view, stories are a foundation for human sociality while also being epiphenomenal to perceiving, sensing and experiencing more primal bodily states which are sometimes called "feelings," but are, in fact, much vaster than this word usually encompasses. As Neidjie and Taylor (1989) say, everything — including stories — feels and has feelings. Feeling is part of story, and story is also feeling — they are together. Knowing comes with feeling, and everything has spirit (Neidjie & Taylor, 1989, pp. 108–110).

Regenerating collective wisdom: reflection

In the Comprehensive Corporation's Annual Sustainability Statement, there is no relational accountability or acknowledgement of Indigenous perspectives other than as passive recipients of corporate "good." In fact, the Corporation story aims to shut down dialogue and questions, an anti-Freire position.

In this narrative, Comprehensive Corporation believes they know what Indigenous people need and they claim to provide it. The corporation's priority is its own staff and its financial security. Because of their billions of dollars invested, they confidently announce amendment of their Russian partnerships, but do not say how. Whilst they claim commitment to global corporate sustainability, they support the victims of a war in which they acknowledge no part. This statement offers a type of innocence, an effort to appear neutral and objective in a partisan, biased corporate model, which forms a vital aspect of the Anglo-Euro-American empire that provoked the Ukrainian war, where there is currently a knowing and wilful destruction of countless lives.

On the other hand, Kyle Whyte, Professor and Potawatomi person of the Great Lakes, Turtle Island, says regenerative environmental education is best when aimed at cultivating qualities of moral responsibilities, as a "collective continuance" which contributes to social resilience as a "way to address some of the major issues affecting Indigenous peoples everywhere, including environmental justice . . . " (Whyte, 2019). Humans have always been engaged in recognising and understanding patterns, involved in empirical observation, discernment, sensing and resonance with their environments. It is one of our defining features as a species; one of our unusual, although not entirely unique, capacities.

The Story of Dangaba offers meaning about gas extraction in ways that present this process as a moral dilemma. Moral dilemmas are often found within First Law stories around values and knowledge, encouraging thinking and feeling in complex ways, outside of a simple good/bad dichotomy. Moral dilemmas in stories can educate in a way that inspires and engages students through a relational and authentic connection to place. These stories provide an opportunity for students to become active listeners by authentically learning about First Law stories where they are challenged by their own reasoning and emotional responses; and it is here where they become capable of perceiving patterns connected to their environment, rather than only being passive learners (recipients) of knowledge.

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The story highlights that people of this area have had Indigenous local knowledge and wisdom about shale gas for millennia. Mulligan *et al.* (2021) remind us how Indigenous Australians continue to use art, culture, dance and stories and more recently, films as a major catalyst to speak back to colonialism and unjust development[6] (for example, see Mulligan *et al.*, 2021). These views are collective, reflecting co-creativity with people and with place. They are embedded within an ethic of responsibility and care for a love of place.

Regenerating collective wisdom: education application

The Dangaba story offers educators knowledge and has the potential to transform understandings and relations with country. The word "fart" and its smell may evoke humour as a trigger to bring young listeners into the story. But it also needs to value and recognise the empirical observations of the world's oldest continuous living culture on the planet, the Indigenous Australians. What the "fart" or smell does is trigger recognition and confirmation of methane gas emissions in country. This could stimulate a discussion of Indigenous Australians as wisdom-holders learning from birth to "read, see, feel and hear country and their non-human kin" (Poelina *et al.*, 2022). In contrast to the Comprehensive Corporation story which aims to close dialogue as they think they know best; the Indigenous story aims to open it up through the layers of meaning and find relevance to the present situation. This links with Freire's notion of finding ways to open dialogue and the actions required to transform our thinking and practice.

This story might also make some educators curious. It might provoke them to find out more about fracking and other forms of gas extraction; when it began in Australia, why it began, and what it does to country, what it offers people economically and what is the cost. They might begin to see that this is not an easy, innocent or simple story. An educator might also retell this story to children and young people, but there is so much more. For example, this story could be a provocation that sparks critical interest and ideas that relate to fracking and forms of gas mining. A performance about Dangaba that children can enact, has the potential to be transformational both in the understanding of the moral in the story of Dangaba and in relation to the impacts of fracking on the environment. First Law stories such as Dangaba springboard the learning into environmental education where student consciousness, regardless of age, is activated at the local and global levels on environmental issues and practices.

We ask what becomes possible if storying is used as a key pedagogical practice, related to place and Country? A pluriverse of stories enables many different forms of storying, involving infusion of multiple perspectives and dialogic action. In 1992, Stephen Toulmin argued: "that [post-Cartesian] change of attitude — the devaluation of the oral, the particular, the local, the timely and the concrete — appeared a small price to pay for a formally 'rational' theory grounded on abstract, universal, timeless concepts." (Toulmin, 1992, p. 75). Contrast this sweeping devaluing of, and disregard for, Indigenous and local knowledge with the elevation and celebration of rhetoric such as that of the Comprehensive Corporation. Yet Indigenous knowledge and such rhetoric are both stories — one local, specific and place-based, while the other is said to be generic and universally applicable. This illustrates the significance of the pluriverse in resisting injustice and celebrating the magnificence of the world we inhabit. It also illustrates the significance of focusing on the relational rather than the (so-called) "rational" (Poelina *et al.*, 2022).

Through work in rural Costa Rica with an ecopedagogy environmental educator, Korsant (2022) describes a tension between mainstream conservationism with its imposed logic of "biodiversity protection," and a Freirean liberation pedagogy which supports community well-being and sustainability in the face of marginalisation. Korsant (2022) comments there is no panacea; and critique is important to detect patronising logics associated with a colonial past. In this way, the goal of a pluriversal environmental education via a practical ecojustice philosophy is more empowering. We see this as part of what Martusewicz (2018) describes as a pedagogy of

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responsibility, which builds on critique to foster an ethic of care, love and ecojustice. She uses Wendell Berry's work to show that discourses of colonialism within schools and society devalue ancient wisdom and tenets that have kept humans safe and well for millennia. These perspectives concur with our work in this paper. There are many ways that teachers, scholars and learners might access and tell stories. These are often available on-line, as films or in curriculum documents. However, there are sometimes a few barriers to such teaching and learning. First, not all teachers are always comfortable with relational forms of knowledge, and sometimes they might not quite know how to understand, appreciate or engage with Indigenous stories. It takes time to learn Indigenous perspectives and knowledge, including learning how to determine whether stories are from reliable or authentic sources, whether they are appropriate to share or tell, how to interpret them (Sepie, 2017; Walsh, 2016) and where to infuse these stories with humility and confidence. More broadly, the scope enables the possibility for story pedagogy to frame the meaning of a story as a pathway to renewing education by inviting others into a dialogue for collective learning and sharing.

Conclusion

Bringing together the learnings in this paper, we show that Indigenisation, localisation and ancient wisdom are vital to safeguarding ecosystems and maintaining the biocultural integrity needed for humans and more-than-humans to survive and thrive. At this critical time on the planet, these Indigenous and local knowledge and existence-scapes are vital for regenerating the well-being of ecosystems that mainstream approaches to sustainability seem incapable of addressing. They are vital for ecojustice and offer ways towards an ethic of responsibility and care.

Early in this paper, we asked some simple questions such as what if systems and teachers prioritise learning to see, hear, feel, describe and value cultures in context? One response is to use stories from the pluriverse, particularly Indigenous and local knowledge because they explain and illustrate practical knowledge in cultural contexts. We also asked what if educators understand learning to perceive, sense, engage with and respond with ecological families or place-based more-than-human kin as a primary concern? In response, if educators understand these processes, learners can learn to live in places with their ecological relations.

Indigenous, relational ways of understanding life and place include integrated holistic attunement to, and curation of, deep complex layered life patterns. To understand that water is life and land is our first teacher requires recognition that Indigenous presence and storying is a key context for all our lives. We live in landscapes shaped by Indigenous and local knowledge over time, and continuities of these ontologies, epistemologies and axiologies are essential to address climate change and biodiversity loss.

Underneath these understandings about the nature of humans, part of the problem in the West is that few of these wisdoms are part of the school curriculum or modern culture. We call for a revolution in education practice (Apple, 2018) in line with education research — so that education can take up its significant function of regenerating local, sustainable lifeways; an education that addresses the realities of the complex predicaments both people and planet are facing (Rooney & Blaise, 2023). Because colonisation continues to maintain the present structures of oppression, we turn to Freire for his concepts of critical consciousness. This is to liberate the humanity of both oppressed and oppressor through authentic dialogue as epistemological relationship; a social learning process for mutually supporting each other in their emancipation.

We use the idea of pluriverse, or multiple place-based cultural voices of relational ontologies, to show models of sustainability. We present a weak form of sustainability using a fictitious corporate sustainability report, and a strong form using an Indigenous story. Dangaba is a mystical woman who lives away from people and represents a moral dilemma about gas in the landscape. She is respected and cared for, as she cares for people in return. On the other hand, she can be very dangerous if her needs are ignored and disrespected.

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Using this line of reasoning, education can offer processes for learning through the power of stories as evocative visceral experiences. We call for storying and narratives from the pluriverse to be a major part of environmental education and to be implemented in many on-country and in-classroom ways. To know how to listen, sense, understand and apply the learnings from story is to know how to move beyond a normalised worldview of separation, alienation, individualism, infinite growth, consumption, extraction, commodification and craving for the sake of people and planet. To know how to see, feel, experience, describe and to reflect upon experience, concepts and practice is to find ways to move towards radical generosity, mutuality of becoming, embodied kinship, wisdom, humility and respect. For healthy past presences, regenerating collective wisdom will involve ceremony, ritual, dance, drama, music, song, painting, carving, weaving, dreaming, films and stories as catalysts to decolonise ourselves, others and the world. Together, let us care for Dangaba

Data availability statement. All data used in this paper is within the paper.

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Notes

1 To define "Indigenous" is a complex task, therefore the perspective in this paper is our own experience of being Indigenous and/or standing-with Indigenous voices. Four authors are Indigenous Australians, being from Victoria, the Kimberley and the south-west of Western Australia, while three authors stand-with Indigenous positions.

2 Capitalisation of Country and Land is to recognise a living, spiritual, sentient, responsive and relational ecosphere — where all beings are kin.

3 The distinction between universe and pluriverse is not categorical, because from one standpoint a meta-level worldview emerges out of the manifold of pluriversal worldviews, namely one which is broadly relational, place-based and oriented towards animism.

4 The Comprehensive Energy Chairman's report presented here is entirely fictitious. Nonetheless, there are many easily available, for example BP (2022). *Reimagining energy for people and our planet: BP sustainability report 2021*. https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/sustainability/group-reports/bp-sustainability-report-2021.pdf

5 Please view the film here: https://vimeo.com/710662076

6 View the film on the Marlaloo Songline here: https://aiatsis.gov.au/explore/marlaloo-songline

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