

INDIGENOUS APPROACHES TO “NATURE”

Insights at a Time of
Planetary Crisis



JULY 2025



Laudato Si'
RESEARCH INSTITUTE
CAMPION HALL, UNIVERSITY OF OXFORD

VIJAY A. D'SOUZA

Indigenous Approaches to “Nature”: Insights at a Time of Planetary Crisis

Vijay A. D'Souza
NEILAC, Guwahati



Abstract

Indigenous cultures often fall victim to oversimplified judgments, being either romanticised as pristine paradises or dismissed as “primitive” and superstitious. These extremes are perpetuated through *storyselling*, a mechanism by which Indigenous narratives are supplanted by externally constructed narratives that often serve colonial or neo-colonial agendas. Such narratives strip away the nuances of Indigenous people’s lived realities, especially their relationship with Nature. A deeper inquiry into Indigenous languages, cultures, and worldviews, however, reveals greater complexity. Nature is simultaneously viewed as a life-giving, nurturing, and protective force on the one hand, and as a mighty, unpredictable, capricious, and fearsome force on the other. These attributes are personified and projected onto spirits, shaping how communities interact with forests, rivers, and mountains. Nature is not seen as inanimate; rather, it is a community of beings imbued with agency, motive, and emotion. This article explores these layered perspectives through the languages, myths, and practices of the Aka Hrusso community of North East India. It engages with the question: is ecological thinking intrinsic to Indigenous worldviews, or is it merely by-product of a “pre-industrial” lifestyle? In answering this, the article highlights the concept of relational existence, where love, care, fear, and awe coexist as essential elements in human–Nature interactions. The restoration of this relational paradigm, which is undermined by dominant narratives through storyselling, may be among the most vital contributions Indigenous cultures offer to planetary healing and to reimagining our place within a multispecies cosmos.

Keywords

Human–Nature Relationship; Indigenous Worldviews; Indigenous Languages;
Biocultural Diversity; Traditional Ecological Knowledge; Reciprocity.

1. Indigenous Solutions to the Ecological Crisis?



Indigenous knowledge is increasingly regarded as vital for fostering sustainable practices, and meaningful engagement with Indigenous cultures is thought to inspire pro-environmental attitudes

As the global ecological crisis deepens, the world increasingly looks to Indigenous peoples for solutions, recognising that their sustainable ways of living offer valuable insights. This perspective is widely endorsed within environmentalist, anthropological, and certain media and policy circles (Niiganiin and McNeill 2022). It is also a perspective championed by many

Indigenous communities themselves, who emphasise their deep cultural connection to Nature as a potential model or lesson for global humanity. Indigenous knowledge is increasingly regarded as vital for fostering sustainable practices, and meaningful engagement with Indigenous cultures is thought to inspire pro-environmental attitudes (Niigaaniin and MacNeill 2022; Campbell 2019; Hill, Schuster and Bennett 2019).

There is also a recognition that the ecological crisis and Indigenous cultural and linguistic endangerment are interconnected. The concept of biocultural diversity originated in the 1990s as a response to the widespread loss of linguistic, cultural, and ecological diversity (Harmon 1996; Krauss 1992; Maffi 2005, 2007, 2018; see Mühlhäusler 1995 for an early historical overview). The concept is based on the hypothesis that the biological world and the human linguistic-cultural world co-evolve, shaping each other and attaining to a symbiotic existence. Indigenous socio-ecological situations have often been advanced as representative of biocultural diversity, where the destruction of cultural-linguistic heritage is causally linked to ecological degradation, and vice versa.

1.1 The Myth of "Primitive" Wisdom

However, there have also been challenges to and critiques of the idea that Indigenous contributions intrinsically present themselves as "solutions" to the ecological crisis.

For example, Milton (1996) critiques what she describes as the "myth of primitive ecological wisdom", aligning this myth with the romanticised notion of the "noble savage." She argues that this idealisation risks promoting an unquestioned, dogmatic belief within what she calls "environmentalist discourse." According to Milton, such views have in particular been directed towards a radical critique of industrialism, where the idealised image of non-industrial societies living in harmony with Nature serves as a contrast to undergird the argument that industrialism drives environmental destruction.

Milton further argues that ecological balance in non-industrial societies, where it exists, is often an incidental consequence of human activities and external factors, rather than an actively pursued goal. This raises important questions for environmentalist discourse. As she notes, "environmentalists look to non-industrial peoples not only for models of ecologically sound practice but also for appropriate ways of thinking about the environment." (Milton 1996, 113). She cautions that if these practices result from conditions beyond human control, rather than from ideologies or intentional action, the environmentalist cause might be clinging to an illusory ally.

1.2 Sacred Groves and Chainsaws

While it is true that environmentally sound practices, such as sacred groves, protected streams, and eco-friendly home constructions, are common among Indigenous communities, destructive practices can also be observed.

For example, large-scale deforestation has taken place in Indigenous-governed states such as Nagaland and Meghalaya in Northeast India, with the latter also grappling with rampant illegal mining. During my many years in Arunachal Pradesh, I witnessed excessive tree felling in the mountainous forests for timber to be sold in the cities. Cane, for instance, has become increasingly rare due to overharvesting. One of the challenges I faced during extended periods of language documentation fieldwork between 2014 and 2019 in rural mountainous areas was the relentless scream of chainsaws felling trees in the dense forests, a noise which made audio and video recording very difficult. Deforestation of this type is widespread throughout Northeast India today.

Such instances have led some scholars to argue that claims regarding the Indigenous-environment relationship are performative, shaped by political or economic expediency rather than being rooted in definitive cultural traits (Valkonen and Valkonen, 2014). It could be argued that eco-friendly behaviour on the part of Indigenous communities is not necessarily driven by a deep-seated love for Nature, but rather by the more banal fact that there is limited access to tools and technologies that might drive environmental destruction. From this perspective, the distinction between sustainable and ecologically harmful practices among Indigenous communities may be as narrow as that between accessing an axe or a chainsaw.

1.3 Reappraising "Nature" in Indigenous Ecological Thought and Practice

This article engages with the question: is ecological thinking intrinsic to the worldview of Indigenous peoples, or is it, as Milton argues, merely a by-product of a pre-industrial lifestyle? Is ecological harmony an ideal actively pursued by Indigenous peoples, does this hold the key to global solutions to mitigate potential ecological collapse?

I will explore these themes to advocate a more nuanced view of the Indigenous relationship with the environment through an analysis of the language, mythology, and cultural practices of the Aka (Hrusso),¹ an Indigenous tribe in the Himalayan foothills of the mountainous state of Arunachal Pradesh, India (Nimachow 2011; D'Souza 2021).

The paper is divided into five sections. Having introduced the problem under consideration, section two situates the varying perceptions of Indigenous cultures and their relationship with Nature as a battle of narratives or stories that unfolds when external vested interests seek to invade Indigenous conceptual worlds. I contrast the externally constructed stories imposed upon Indigenous peoples with the self-narratives that Indigenous societies weave about themselves and Nature. Externally imposed stories lead either to the denigration or romanticisation of Indigenous cultures, through what I will term *storyselling*, a process through which Indigenous worldviews are subverted and supplanted. Section three presents a case study of Aka Hrusso self-stories, examining the community's complex and often ambiguous attitudes towards Nature. Section four returns to the central question of whether ecological consciousness is intrinsic to Indigenous communities or whether it is merely a feature of a "pre-industrial" way of life. The final section proposes a way forward via respectful dialogue between modern scientific perspectives and Indigenous wisdom, advocating a recognition of their respective strengths and inadequacies. It calls for a more nuanced appreciation of Indigenous narratives, which recognise relationality as a fundamental operating principle within a multispecies cosmos, and from which we might learn attitudes of reverence, humility, and love towards Nature.



Is ecological harmony an ideal actively pursued by Indigenous peoples, does this hold the key to global solutions to mitigate potential ecological collapse?

2. Stories: Meaning Capsules and Trojan Horses



An immersion into these sacred storytelling traditions is necessary to understand how relationships between humans and the natural world are conceptualised in Indigenous societies.

An effective way of engaging with the Indigenous worldview is through their oral traditions, that is, their “stories”.² Often taking the form of narratives filled with fantastical beings and implausible events, stories symbolically communicate complex meaning systems developed over

generations, as Lévi-Strauss (1969) has argued. They speak directly to the subconscious mind at both individual and collective levels, without requiring explicit explanations, helping a community to remember, understand and transmit its attitudes, convictions, and worldviews. In this sense, stories are concentrated capsules of meaning and knowledge systems.

Storytelling, a pivotal socio-religious activity among Indigenous cultures, is thus an act of administering these “concentrated capsules of meaning”. It performs two functions: preserving meaning systems and transmitting them cross-generationally. Stories thus serve as bridges between the ancestral past and the emerging future. An immersion

into these sacred storytelling traditions is necessary to understand how relationships between humans and the natural world are conceptualised in Indigenous societies.

2.1 Stories as a Colonial Battleground

In the context of the historical and ongoing colonisation of Indigenous peoples, and the relentless assault on their ways of life by colonising forces that persist within post-independence nation-states (Quijano 2000), stories are a crucial battleground. The success of the colonial project involves not only the appropriation of land and resources, but also the conquest and replacement of stories through which control of the mind is achieved (Ngũgĩ 1986; Smith 1999; Fanon 1961, 2001). The stories that clash in this battle belong to two opposing categories. The first comprises stories constructed and disseminated *about* Indigenous people and Nature by dominant, colonising forces such as modern nation-states and market forces. These narratives portray Nature as a passive, inert, and exploitable resource. The second category comprises stories told by Indigenous communities about themselves and Nature. These portray Nature as a sentient entity, endowed with rights, privileges, and agency. I will briefly discuss each of these categories below.

2.1.1 Stories *about* Indigenous People and Nature: Derision and Romanticisation

Stories told *about* Indigenous people generally fall into two types. Some construe Indigenous people as primitive and even subhuman; others romanticise them. A good historical example of the first type is the infamous Valladolid debate, organised in 1550–1551 by the Holy Roman Emperor Charles V. It aimed to settle the ‘Indian Problem’, that is, to discuss whether Native Americans were fully human or not. Juan Ginés de Sepúlveda, arguing against the Dominican Bartolomé de las Casas, applied the Aristotelian concept of ‘Natural Slaves’ to argue that that various traits of the ‘Indians’ made them less human and therefore naturally disposed to slavery.³ Spaniards were a superior race, he proposed, and had the right to govern and force the Indians into political, moral, religious and economic submission for the latter’s own good. In contrast, Las Casas argued that the Indians were fully human with equal rights and cited graphic examples of the brutalities inflicted on them by Spanish colonists: in their unimaginable cruelty, the colonists had been less moral and therefore less human in their interactions with the Indians.

However, his arguments did not succeed in conclusively settling the debate, and the project of conquest and genocide continued.

In the early 20th century, Lord Lugard, a prominent British colonial administrator who played a crucial role in shaping British rule in Africa, particularly through the doctrine of Indirect Rule, presented a similar ideology in his *The Dual Mandate in British Tropical Africa* (Lugard 1922). This work, a sort of colonial manifesto, portrayed the British Empire as a benevolent force on a civilising mission. He expounds a theory of hierarchy of human races, not via the category of colour, but with “blood” as the criterion of where a race can be placed on the human-animal spectrum. People of the “pure negro stock” (68), albeit “fine specimens” of human physique, were closer to animals in thinking and culture than those of European or Asiatic descent, or those who had mixed blood. In other words, the Indigenous peoples of Africa were more on the animal side of the human-animal spectrum compared to the more “developed” and urbanised societies (68-69).

During the same colonial era, the discipline of anthropology emerged, initially tainted by racist ideologies (Jesús, Pierre and Rana 2023). Early anthropological endeavours were preoccupied with the so-called “primitive man”, focusing on the “primitive mind” and “pre-civilisation” societies, with Indigenous peoples being cast as the quintessential “primitive”. The archetype of uncivilised humanity, they constituted a valid object of study and subject for experiments.

This imaginary of the Indigenous remains a persistent trope, extending beyond the colonial period and well into the present, and often serving as an excuse for colonisation by nation-states throughout the world. These colonial attitudes are not confined only to the white settler colonial societies but are also common among non-indigenous populations within modern nation states, who continue to practise “internal colonisation” of Indigenous peoples (Quijano 2000). For instance, speaking about the Indigenous tribes of the Indian state of Orissa, a noted Indian educationist said:

[...] they fill up (their) stomachs only with forest products and cover their bodies with leaves of the plants. There are 13 primitive tribes in Orissa also. They live, they sleep on the branches of the tree. They are known as Mankidia, (I mean) Monkeys...there are so many varieties of primitive tribes. They don't understand anything [sic] (Survival International 2020).

The depiction of Indigenous cultures as primitive, superstitious, and unscientific takes a draconian turn in the hands of the neo-colonising nation-states. The trope makes possible

persistent attacks on Indigenous peoples, their lands and their ways of life in various parts of the world, including the massacre of Indigenous people and their defenders in Brazil, Colombia, Mexico and other Latin American countries (Fernández 2023); the recent destruction of the Hasdeo forest in Orissa, India for mining extractions (Nitnaware 2024); the infamous incarcerations of the sixteen well-respected defenders of Indigenous and Dalit rights, known as the “Bhima Koregaon 16” (BK-16), under the draconian anti-terrorist Indian law UAPA (Shah 2024); the repeated attempts of corporate conglomerates to take over Indigenous lands in the tribal belts of

central India; and the calls of strongman leaders like Jair Bolsonaro to forcibly “civilise” Indigenous people of the Amazon (Phillips 2020).

This narrative about Indigenous communities perpetuates a derisive image of prescientific, pre-development, even quasi-human peoples who are insufficiently evolved to manage their own resources. Through such a story, the modern nation-state asserts its right to “develop”



The depiction of Indigenous cultures as primitive, superstitious, and unscientific takes a draconian turn in the hands of the neo-colonising nation-states.

Indigenous peoples out of existence and to take over their lands and resources in order to satisfy its own insatiable resource demands. In doing so, the modern world inflicts physical, political, epistemic, linguistic and cultural violence on Indigenous peoples and their environments (Akena 2012; Warrior 2015; Desjarlais 2020).

2.1.2 Romanticisation

The other type of story told *about* Indigenous people involves romanticisation. This projects idealised notions of perfection and harmony onto (imagined) Indigenous societies. It portrays

Indigenous peoples as living in an idyllic, pristine, benign landscape in perfect harmony with Nature.

Such narratives, while seemingly benign, are reductive and dehumanising. They serve to assuage colonial guilt and reinforce colonial control by turning Indigenous peoples into symbols of someone else's ideological aspirations, rather than engaging with the complex realities in which Indigenous people actually live. Romanticisation

glosses over their human complexities and functions as a political expedient in the service of projected ideals (Coţofană and Kuran 2023). Romanticised stories about Indigenous societies are often constructed in order to provide an antithesis to modern industrial societies and to promote certain environmentalist ideologies (Milton 1996).

The ulterior motive of the stories of both types (derision and romanticisation) is to convince Indigenous peoples to serve the external politico-economic projects of the colonising entities. This is done by telling these stories *to* Indigenous peoples, through a process I call *storyselling*.

2.2 Storyselling: Planting Trojan Horses in the Mindscape

It is precisely because stories are so central to human identity and motivation that they become a critical focus of the colonial project. Colonising forces understand that as long as a colonised people's stories persist, resistance is possible. Hence, one of the initial steps in any colonial project is the destruction of the stories of the conquered. Storyselling thus describes the process whereby colonial narratives delegitimise and displace Indigenous stories in order to destroy their worldviews, and their knowledge and meaning systems.

In other words, storyselling represents a conquest of the mental and cultural spaces of the conquered. It seeks to replace one meaning system with another, often presenting this as a gift or a necessity, when in reality it is a trojan horse designed to conquer the cultural mindscape from within. This process is a calculated sleight of hand; it points to one thing while leading to another. For example, it promises progress and development, but often delivers impoverishment and dependency. It is a mechanism of reconfiguring the mindscape of the colonised to align with the narratives, values, and agendas of the coloniser (Ngũgĩ 1986). In this way, the colonial project achieves not only physical conquest, but also a deeper, enduring conquest of meaning and identity.

Storyselling is not incidental to colonisation but lies at its very heart. By replacing Indigenous meaning systems with colonial stories *about* Indigenous people, the coloniser secures control not merely over land and resources, but also over the collective soul of a people, ensuring permanent domination.⁴ Storyselling has been successful among Indigenous peoples throughout the world, causing "voluntary" renunciation of Indigenous stories, especially by educated members of Indigenous communities. I was struck by what a young postgraduate woman of an Indigenous community in Northeast India told me during a conversation in 2015,



Romanticised stories about Indigenous societies are often constructed in order to provide an antithesis to modern industrial societies and to promote certain environmentalist ideologies.

which seemed to echo the storytelling dynamic to which her own culture had been subjected: “our stories lack logic or reason”, she reported. “It is as though someone was on drugs and hallucinated incoherently. Our elders think [these stories are] important, and they keep repeating the stories (and I don’t see the point)”. She then went on to explain her statement about these traditional stories, citing their lack of coherent timeframes, episodes of apparent violence, and the prevalence of strange and “unscientific” explanations of natural phenomena. Modern education had not provided her with a method for understanding the symbolic thinking of mythological narratives. Such attitudes toward anything Indigenous are not uncommon, even among the members of Indigenous communities, who, having internalised the “one true way of knowing” offered by modern education and modern science, hold all other types and paradigms of knowledge in contempt.



Storyselling strips Indigenous communities of their agency in constructing stories of their lives and their environment, reducing them to the status of passive recipients of meaning systems crafted by the coloniser.

Storyselling strips Indigenous communities of their agency in constructing stories of their lives and their environment, reducing them to the status of passive recipients of meaning systems crafted by the coloniser. Stories of derision and primitivising entail processes of erasure, epistemic injustice, coercion and violence (Kidd, Medina and Pohlhaus 2017; Allen 2023). Such narratives, when internalised by marginalised communities, lead to historical trauma (Aguilar and Halseth 2015) and a “self-shame spiral”.⁵ Conversely, stories of romanticisation create impossible expectations and illusory identities, and may be co-opted by Indigenous communities for political expediency and narrow ethnonationalist identity-building.

A critical step in storytelling is the obliteration of Indigenous languages, or “linguicide” (Skutnabb-Kangas 2000). This is crucial, because words, concepts, linguistic structures, and semantic conceptualisations are the building blocks of Indigenous stories. As long as languages persist, these building blocks remain, and indigenous stories will be able to survive. Therefore, denigrating these languages as mere primitive “dialects,” supposedly lacking sophistication and vocabulary, is a necessary mechanism in storytelling, together with steps like language bans in schools and the imposition of dominant languages through education, media, and governance, all of which effectively work to kill off Indigenous languages (Aguilar & Halseth, 2015).

2.3 Self-Stories: Narratives that Weave Meaning Systems

In this battle of stories, the second category are those told by Indigenous people—about themselves, the world, and other humans and animals. I call these *self*-stories, a term akin to that of the “emic narratives” described in anthropological literature. Through these stories, communities weave together fabrics of meaning, connecting experiences, physical realities, and spiritual insights. These stories arise from the human quest to understand existence and the desire to find explanations for observed phenomena. Each story is a cog in a complex cosmological, philosophical, and phenomenological wheel. This system can be accessed and comprehended only when one connects the cogs, as Lévi-Strauss demonstrated. Otherwise, one may see only illogical flights of imagination—“incoherent hallucinations” in the words of my young friend quoted above—some entertaining, others frightening, and still others revolting.

How does one engage with these self-stories? While it is easy to take delight in the emotional appeal of some, the entertaining plots of others, and the scientific value of yet others, in what sense should we read narratives that include extreme violence, various taboos and restrictions on women, and stories that involve treachery, betrayal, acts of cowardice, and murder committed by protagonists and ancestral heroes? These are the questions both insiders and outsiders must

reckon with when grappling with self-stories, where the figure of the noble savage is shattered, and the "happy native" turns out to be a lonely outlier in an otherwise messy, ambiguous world (Everitt 2009).

A respectful engagement with any aspect of Indigenous culture requires confronting these messy self-stories beyond simplistic tropes and delving into the complex web of meaning systems. With this in mind, I will now return to the question of the Aka Hrusso conceptualisation of Nature.

3. Nature in the Aka Hrusso Meaning System

3.1 Context

The Aka Hrusso people, an Indigenous group with a population of around 10,000, live in the Himalayan mountains of the West Kameng District of Arunachal Pradesh, India. Access to their homeland is through a solitary road that ascends from the plains of Assam and winds its way through dense tropical forest of the Himalayan foothills. The traveller witnesses immense beauty—the tranquil, drowsy mountains, the distant glow of snow-capped peaks, the crisp, pure air, and forests teeming with wildlife, with mithun bison⁶ roaming freely on the road and an occasional wildcat or a deer, or an armadillo peeking through the bushes that merge into the evergreen tropical forest that extends to the horizon.

The horizon, the Aka Hrusso people believe, is where Mother Earth is locked in an embrace of Father Sky in an eternal act of love. Being larger than her husband, she folds herself to adjust to his size, giving rise to the countless pleats of mountain ridges. The blue-green mountains, the fresh air, the waterfalls, and the streams paint a picture of the tranquil, soothing expanse of Mother Earth.

Yet, alongside this serene beauty, there is a sobering reminder of Nature's formidable power. To one side of the road, a gorge plummets hundreds of feet down to the Kameng river. To the other, a wall of precariously loose soil looms and the road is littered with rocks of various sizes that have crashed down, as though the mountains have been keeping themselves amused by playing with travellers.

Along the journey one sees many memorial stones or concrete monuments—testimonies to those who have lost their lives in encounter with the raw, unpredictable forces of Nature. On occasions, parts of trucks are seen, strewn like pieces of broken toys, in the depths of the gorge. The local fellow passengers sometimes recount horrific tales of those who have lost their lives, some tricked by the fog, others crashing due to brake failure, or on account of a distracted or a drunk driver. They also remember stories of elephant-sized rocks rolling down the mountains, crushing everything on their way, including unfortunate travellers.

Any feeling of control over Nature vanishes here, replaced by a humbling awareness of human vulnerability. Every journey along this road is an experience of Nature's contradictions and its ambiguous relationship with humanity—its peacefulness, its life-giving freshness on the one hand, and on the other, its overwhelming power, its unconcerned might, and its destructive fury. A human being is but a small, insignificant speck at the mercy of Nature.

Eventually, if one travels towards the Seppa town, the Aka Hrusso villages start appearing at a distance as tiny collections of dots (houses in close proximity) on the vast green ridged canvas. From this vantage point, it is easy to comprehend the reverence the Aka Hrusso people have for *No Añi*, translated as "Mother Earth", whose sprawling expanse shelters all that exists. I have travelled on this road countless times, exhilarated by its breathtaking beauty but also intimidated

by the overwhelming presence of these mountains. In such moments I have wondered how the Aka Hrusso people experience Nature in their daily lives.

The following section sheds light on this theme, exploring ideas of Nature’s sentience, immediacy, agency and volition, as well as the kinship, relationality and multi-species cosmology of the Aka Hrusso people, highlighting their approach to their cosmos and the place of humans within it (for more elaborate explanations of these themes involving other Indigenous cultures, see Kohn 2013; Aiyadurai 2021; Kopenawa and Albert 2023).

3.2 The Aka Hrusso Self-stories

Careful study is needed of mythologies, oral histories, songs, rituals, shamanic chants, hunting registers, and elements of language itself to gain a comprehensive understanding of an Indigenous group’s meaning system—one thread at a time. Here, I offer only a few glimpses of the themes most relevant to this paper’s central argument.

Meaning systems explore questions related to concepts such as existence (what entities exist in the cosmos?), identity (who and what are the entities that exist, and what are their characteristics?), compositionality (what are such entities made of?), and relationality (how are these entities related to one another?). A good starting point for addressing these questions is the Aka Hrusso understanding of human personhood, that is, Aka Hrusso anthropology.

According to this anthropology, the human person is made of body, soul, essences and energies. I will collectively call these “elements.” At the most fundamental level, a human being is composed of two primary elements: the body (*usso*) and the soul

(*gulo*). However, beyond this binary distinction, three essences are represented in the Aka Hrusso language via three prefixes: *mü-*, *nü-*, and *lü-*. In addition to these three essences, there are various energies: *ğagra*, *krāsü*, *gağüze*, *fusüğavie*; these bestow upon the possessor qualities such as strength and courage, discernment, luck and success, and hunting prowess.

3.2.1 The Three Essences of Personhood

The three essences are accessible as such only through language, in a set of nominal prefixes which become evident through a phonological and semantic analysis (see D’Souza 2021, 462–463). They are part of the latent, subconscious, intuitive knowledge of native speakers, not directly found in oral narratives (except *mü*, of which I found only one direct reference in a shaman’s explanation of a ritual in 2024).

Mü- (The Life-Essence): the *mü-* essence encapsulates the vital force that animates an individual. This essence manifests in different ways, as seen in the Aka Hrusso lexicon. For instance, *mükyew* (“elder”) combines *mü-* (life-essence) with *kyew* (mature), signifying an individual whose life-essence has reached full maturity. Similarly, *mulow* (“heir”) derives from *mü-* and *low* (carrier), reflecting the idea of one who carries forward the vitality of lineage. Other lexical formations include *muhu* (“man”), meaning “one whose life force is strong”; *mimi* (“woman”), described as “one whose life essence is fire”; *mukro* (“old man”), indicating “one whose life essence is dry”; and *münyew* (“elder”), referring to an individual overflowing with life-essence.

Nü- (The Bodily Essence): the *nü-* essence pertains to the corporeal dimension of human existence, encapsulating physicality and the integrity of the body. The term *nüshüw* (“be hot” in taste) derives from *nü-* (body) and *shüw* (heated), describing the corporeal experience of heat.



Careful study is needed of mythologies, oral histories, songs, rituals, shamanic chants, hunting registers, and elements of language itself to gain a comprehensive understanding of an Indigenous group’s meaning system—one thread at a time.

Similarly, *nüngüw* (“feel cold”) signifies “a body that has turned cold”, highlighting the physical aspect of sensation. The term *nugow* (“grown up”) combines *nü-* with *gow* (“strengthened”), indicating a fully developed body, while *nuġu* (“grave”) denotes “a body interred”. The most fundamental manifestation of *nü-* is *nüna* (“human being”), meaning “embodied ones”. Even the act of conception, expressed as *ñiw* (“to conceive”), may derive from *nü-ġiw*, meaning “to be infused with a body”. This essence thus signifies the corporeal reality of existence and the embodied Nature of personhood.

Lüi-(The Seat of Emotions): the *lü-* essence represents the emotional and psychological dimensions of human existence, often metaphorically associated with the heart (*uluvyu*) or the viscera (*ulu*, lit. “inside”). The term *lüshüw* (“be happy”) combines *lü-* (“heart”) with *shüw* (“warm”), signifying the experience of emotional warmth. Similarly, *lübaw* (“be merry”) suggests that the heart “blooms” with joy, while *lunaw* (“be sad”; *naw*, “pain”) and *ludruw* (“be sad”; *druw* “be ripe”) denote emotional pain and ripeness, respectively. The term *lügow* (“take courage”) conveys the notion of a “strong heart,” whereas *lumiw* (“be discouraged”) signifies a “small heart”, indicating diminished emotional strength. This essence reflects the Aka Hrusso understanding of emotions as embedded sensations in the viscera or the heart, which is perceived as the seat of feelings.

3.2.2 The Interplay of Body, Soul, Essences and Energies with the Cosmic Entities

In the Aka Hrusso worldview, the elements that constitute a human person interact with various beings and forces in the environment. These elements may be affected by other beings, whether in life or in death. For example, at death, it is the physical body that perishes, not the soul.⁷ During sickness, the soul may be abducted by a spirit and imprisoned in the netherworld, but the body is still present—an occurrence commonly divined by shamans. Insulting certain natural entities, particularly by trespassing into prohibited territories, can cause the *ġagra* to “ripen” or “soften”. A person whose *ġagra* has ripened (*ġagra druw*), for instance, lacks courage, struggles to speak boldly in meetings, has a weak voice, lacks fluency of language, becomes diffident, loses zest and is prone to sickness. To restore this, steps are taken through nourishment, symbolic gifts such as

a long sword, and rituals designed to strengthen this energy. Such acts are collectively referred to as *ġagra gokiew* (“*ġagra*-bolstering”).

Thus, each of the elements listed above serves as a channel through which other beings, forces, and energies in the cosmos can affect a human person. In other words, the elements of a person are both susceptible to and accessible by various other beings in the cosmos, who can strengthen, enhance, weaken, abduct, or despoil them—thereby influencing an individual’s vitality, physical well-being and emotional balance. In the Aka Hrusso understanding, human compositionality transcends biological determinism and is ontologically connected to other cosmic entities and forces. Human

wellbeing arises from an equilibrium of all the constituent elements of personhood, which can be achieved only through a harmonious coexistence with other beings in the cosmos.

3.2.3 Relationship with Nature: Spirits, Plants, and Animals

In the Aka Hrusso language, Nature as a physical place is referred to as *hudjü-nolu*.⁸ It is, however, reverentially referred to as *huda-puda* (literally, “water-mountain”), and is invoked and worshipped under this name. The cosmos is composed of various realms such as the village, the forest, the water bodies, the sky, the realm of the dead souls and so forth, with various beings inhabiting these realms, conducting their affairs and enjoying their rights and privileges.



Human wellbeing arises from an equilibrium of all the constituent elements of personhood, which can be achieved only through a harmonious coexistence with other beings in the cosmos.

Cosmic equilibrium is achieved when all beings are given their due in each of these realms according to the ancient cosmic laws governing the realms and their inhabitants. Disturbance in this equilibrium occurs when any being breaks these ancient laws, and the remedy is sought through divination and rituals. The purpose of these rituals is therefore to restore harmony and equilibrium.

Nature as a whole and the various beings who inhabit it are symbolised in the form of spirits. The inventory of spirits is quite elaborate, with myriad spirits occupying the realms of the forest, water bodies, the after-world, the village, the household, the fireplace and so on. Acknowledging



Acknowledging an ambiguous attitude towards Nature, the Aka Hrusso worldview conceptualises a complex and unavoidable love-hate relationship between humans and spirits, marked by both co-operation and conflict, gratitude and suspicion, trust and fear.

an ambiguous attitude towards Nature, the Aka Hrusso worldview conceptualises a complex and unavoidable love-hate relationship between humans and spirits, marked by both co-operation and conflict, gratitude and suspicion, trust and fear. Like humans, spirits experience feelings and passions such as jealousy, hunger, and desire, which can lead them to disrupt the cosmic balance. This dynamic is illustrated in the myth of *Süksülyevo* and *Humo Tuğulyevo*, which is one of the foundational mythological narratives in the Aka Hrusso philosophical system. An analysis of this story reveals several aspects of the Aka Hrusso cosmology, human-spirit relationships, the Nature of sacrifices, human-animal interactions, and the concept of cosmic realms.

According to this myth,⁹ *Süksülyevo*, a spirit, gave his daughter, *Süksülye Sam*, in marriage to *Humo Tuğulyevo*, a human. While the spirit resided in *Shappum Nolu*, the Spirit realm, the man lived in *Süjibro Nolu*, the human realm. *Süksülyevo*, cunning and deceptive, regretted his decision and sought to reclaim his daughter and possess the human land by eliminating his son-in-law. Aware of her father's Nature, *Süksülye Sam* warned her husband to be cautious and promised to guide him.

Determined to outwit the man, *Süksülyevo* proposed a series of competitions, each designed to secure his dominance over the land. In the first challenge, they were to slide sticks down from the mountain to the plains, with the winner claiming ownership of the land. The man, guided by his wife, used a smooth and slippery branch, allowing him to win the contest. Unwilling to accept defeat, *Süksülyevo* devised another challenge, requiring them to stomp their feet on the ground to produce the loudest sound. Again, *Süksülye Sam* advised her husband, instructing him to stomp on a porcupine hole, which amplified the sound of his feet and secured his victory. Frustrated, the spirit devised many more contests; the man won all of them with his wife's help.

Growing more resentful, *Süksülyevo* devised a final scheme. He invited the man to fish and, under the guise of ensuring a fair catch, convinced him to pluck out his eyelashes and leave them on a stone. As soon as the man turned away, the spirit consumed his eyelashes and disappeared into the underworld. Realising he had been deceived, the man rushed home in fear. His wife, understanding the significance of her father's actions, knew that misfortune would soon befall her husband. True to their fears, the man became gravely ill, and despite numerous sacrifices of wild animals to appease the spirit, his condition worsened.

Desperate, *Süksülye Sam* confronted her father, demanding to know why he had tormented her husband. *Süksülyevo* admitted that he did indeed cause harm to his son-in-law but offered a solution. He instructed his daughter to sacrifice domestic animals instead of wild ones, as wild creatures already belonged to the spirits. Additionally, he dictated that the right hand, throat and chest of the sacrificial animal should be given to the shaman, recognising the physical toll of his prayers and rituals. He also specified which varieties of bamboo were appropriate for building the ritual altar, forbidding the use of certain kinds that were considered spirit property.

Following her father's instructions, *Süksülye Sam* performed the required rituals, and her husband was restored to health. From that moment, humans adopted the practice of sacrificing domestic animals to spirits, determining which parts should be given to shamans and which materials should be used in constructing altars. Thus, it was *Süksülyevo* that taught humans these fundamental rituals, shaping their spiritual and sacrificial traditions for generations to come.

This story provides crucial insights into the Nature of spirits, into human vulnerability and into the spirit-human relationship.¹⁰ The ambivalent Nature of the spirits in the myth is also a symbolic codification of how Nature is perceived. Spirits occupy a moral and behavioural continuum, each possessing distinct responsibilities and governing specific realms—such as forests, water sources, or domesticated animals. Their unpredictability, which may entail abrupt mood shifts or deceptive machinations, serves as a constant reminder that Nature's force is pervasive, dynamic, and never wholly under human dominion. The human-spirit relationship in the Aka Hrusso worldview can be summarised as below:

a) The ambiguous Nature of the spirits

The myth presents spirits as possessing both harmful and benevolent attributes. While *Süksülyevo* seeks to harm the man, his daughter—a spirit herself—acts as a guide and protector, ensuring her husband's survival. The story initially portrays *Süksülyevo* as a greedy trickster disrupting cosmic harmony by attempting to seize the man's land, wife and indeed his very life. However, by the end, he assumes a vital role in imparting essential knowledge regarding sacrificial customs. This reveals the role of spirits as both adversaries and instructors.

b) Human responsibility

According to the Aka Hrusso belief system, spirits adhere to cosmic laws and cannot harm humans unless a law is transgressed. The spirit's actions against the man stem from jealousy and greed for more land. However, *Süksülyevo* is unable to inflict harm until the man unwittingly violates a cosmic law by abandoning his eyelashes, an act against his own bodily integrity. This suggests that human misfortune is not arbitrary but a consequence of actions, conscious or unconscious.

c) The spirits' role in diseases

The Aka Hrusso attribute illness to conflict between beings in the cosmos, with one being or the other transgressing a cosmic law. Spirits are often thought to be the cause of diseases, when they are displeased with some mistake on the part of humans or simply due to capricious action.

d) Fear of spirits

The fear of Nature is expressed in the fear of spirits, which manifest the lived experience of the unbridled power of Nature, its power to take lives at will, its potential to cause calamities and diseases, and its unpredictable hostility. This fear is heightened when venturing beyond the normal places of human habitation, such as forests, where spirits are believed to dwell in abundance. The Aka Hrusso thus navigate their environment with caution, constantly seeking protection to mitigate potential threats.

3.2.4 Sacrifices as Relationship-Building Exercises

The story ends as an etiological narrative with an explanation of how sacrifices originated, highlighting their central role in restoring balance when cosmic harmony is disturbed. Writing about Aka Hrusso sacrifices, Sinha states that they are driven by appeasement (Sinha 1988). However, a deeper analysis suggests that the Aka Hrusso perform sacrifices within a framework of values of relationality, reciprocity and justice. Sacrifices can be classified into three categories: remuneratory sacrifices, which are offerings made in gratitude for blessings received from Nature

or spirits, ensuring continued favour; reparatory sacrifices, performed to atone for transgressions that result in illness or misfortune, thereby re-establishing cosmic equilibrium; and covenantal sacrifices, which are ritual acts sealing agreements between humans and spirits or among humans themselves. Sacrifices function as relationship-building and relationship-maintaining exercises between humans and Nature, much like the way constant contact and the exchange of gifts are crucial in fostering and sustaining human relationships.

3.3 Axis of Kinship: Plants, Animals and Natural Entities

Kinship with animals, plants, and other natural entities is experienced in daily life and codified in language and ritual. I will briefly describe three myths that do this: the myth of the Mithun (a large domestic cattle), the myth of the orchid, and the myth of the tiger.

The myth of the mithun narrates the story of the daughter of the primordial ancestor, *Busulu Awu*, and the sister of humans, who transforms herself into a mithun bison and lives in the forest. Subsequently, when her father falls sick, the primordial shaman is called, and he divines that the only way to save *Busulu Awu* is to sacrifice the mithun. She then sacrifices her life to save her father.

Second, and to a similar end, the myth of the orchid recounts the tale of two sisters, *Fubalye Tchüsü* and *Badzülye Doği*, who, upon being mistreated by their sister-in-law, turn themselves into orchids. Upon their brother's earnest request to return home, they refuse, but promise to help in his field and ask him to sow the seeds when they bloom year after year.

The myth of the tiger¹¹ reflects a complicated relationship between humans and this formidable predator. The story narrates that humans and tigers were once brothers and hunted together in the forest every day. One day, the tiger was discovered eating raw flesh by his younger brother, the human. Ever since, these two have lived separately, after making a pact that this fact would remain a secret and that the tiger would kill his brother if the pact was not honoured. Many years later, when the man was about to die, he revealed the secret to his children, and the tiger, eavesdropping, instantly killed the man. His children avenged their father by killing the tiger.

This tragic story, including elements of kinship, betrayal, treachery and fratricide, explains why tigers and humans are enemies despite their close kinship. While the Aka Hrusso are permitted to hunt tigers, doing so is accompanied by deep ambivalence. A successful hunter is celebrated for his courage, but must also undergo rigorous rituals of penance and mourning for the perceived fratricide.

The bond of kinship extends to other animals and birds, such as the crocodile and the hawk. As already noted, among natural entities, the earth is considered the mother and the sky the father, always present, listening to all conversations and observing all human activities. Each clan of the Aka Hrusso has a sacred mountain associated with it, with which they share a special bond of belonging.

The stories of kinship have real consequences in the daily lives of the Aka Hrusso. For example, as the blooming of the sister orchid signals the sowing season, another sister, the mithun, provides nourishment and becomes a sacrificial victim, exchanging her life for a sick person. Mother Earth offers a place to live, work and grow crops. These bonds of kinship evoke feelings of affection and gratitude, and the sense of being watched over by natural beings.

In the same vein, the ambivalent feelings of kinship, respect, awe, and fear towards the tiger, as well as the collective memories of its betrayal and treachery, are in fact the codification of real-life experiences with predatory animals—in this case, a hunter-to-hunter sense of kinship with and admiration for an apex predator, alongside the constant vigilance of looking over one's shoulder in the forest, wary of a potentially lurking killer.

4. Discussion

In light of the analysis presented above, I now return to the two questions raised at the outset of this paper. First, I examine whether the ecologically sound lifestyles of Indigenous people (at least, as these are widely perceived) are, in fact, essential to Indigenous cultures or whether they constitute simply a "myth of the primitive ecological wisdom." Second, I consider the question of ecologically destructive behaviour among Indigenous people, especially the educated ones.

4.1 Nature and its Agency, Sentience, and Reciprocity

In addressing the first question, the previous section has demonstrated the centrality of human relationships with Nature in the Aka Hrusso worldview, both collectively and individually, which always manifests via a significant impact on daily lives. Dismissing the ecological wisdom of Indigenous cultures as a mere "myth" overlooks a deep-rooted, inherent understanding of ecological balance and sustainability: an intimately experienced relationship with Nature.

Within Aka Hrusso cosmology, Nature is not a lifeless, exploitable resource but a sentient entity with ownership and agency. The spirits preside over various domains, ensuring that the natural environment remains vibrant, responsive, and inhabited by myriad forms of life. Land

constitutes the bedrock of communal identity, knitting together cultural memory and existential belonging. Kinship ties with animals and plants—tigers, orchids, mithuns, hawks—further underscore this worldview, confirming the belief that humans and non-humans share reciprocal obligations within a single ecological, multi-species network.

Beyond its nurturing and protective roles, Nature in the Aka Hrusso understanding embodies an ethos of justice and equity. Humans, confined to their rightful sphere of influence in a multi-being cosmos, do not assume inherent dominion over other life forms

or over spirits. Rather, each favour sought from the spirits incurs a corresponding debt, and the principle of reciprocity undergirds a cosmic equilibrium. Disharmony arises when individuals disregard the boundaries or rights of other beings. Sicknesses and calamities are a result of such disharmony and are seen as a breakdown of just and equitable relationships. Maintaining equilibrium, then, entails respecting the moral claims of all actors, whether human or non-human, and the restoration of relationality.

Paradoxically, the same environment that nurtures is replete with forces that can turn treacherous, often without forewarning. This is a reflection of the real-life experience of difficult terrain, natural disasters and unpredictable sicknesses with which the community has grappled for centuries. In response, the Aka Hrusso cultivate a disposition of perpetual vigilance and preparedness, engaging in rituals and supplications aimed at assuaging or placating potentially volatile spirits. The unpredictable Nature of these cosmic interactions engenders both humility and what can be at times debilitating fear and apprehension, as humans recognise that they remain vulnerable to a realm neither fully comprehended nor controlled.

This complex approach to spirits and, by extension, Nature involves multiple strategies that reflect an appreciation of Nature's agency and its potential volatility. These strategies may involve conversation, entreating, and cajoling—modes of address that emphasise persuasion and respect, aiming to gain favour or prevent misfortune. Seeking advice, counsel, or oracles is also common, as the spirits are credited with insight into future events or hidden realities, prompting individuals to seek their guidance and prognostication. When malevolent interference is suspected, more assertive tactics may be employed, including domination, threats, and symbolic demonstrations of human resilience. Argumentation, negotiation, and bargaining resemble



Within Aka Hrusso cosmology, Nature is not a lifeless, exploitable resource but a sentient entity with ownership and agency.

contractual discussions, wherein humans articulate requests while spirits ostensibly impose conditions or demand reciprocation. Requests for favours often concern health, agricultural abundance, or protection from calamities (see Delley 2018, Delley 2020, Delley 2023 for similar analysis of the Idu Mishmi culture).¹²

Displays of strength by the shaman play a crucial role in interactions with spirits. Physical or performative gestures, such as wearing tiger canines, eagle claws, long swords, and special hats, signify human a capacity to derive power from other beings (the spirits of the tiger, the eagle and so forth) and serve as a reminder that humans also possess agency and strength, ensuring that contact between the two parties is understood as a conversation between equals. Special language, including ritual speech codes and special vocabularies, is invoked to engage with spirits in a register that underscores solemnity and reverence. The elaborate Nature of these rites—encompassing offerings, prescribed chanting, and community participation—reflects an understanding that the successful negotiation with the natural entities demands careful preparation, strategy and forethought.

4.2 When Storyselling breeds Ecologically Destructive Behaviour

Turning to the second question, Milton's argument might appear to be corroborated when we consider the many examples of modernised or modernising Indigenous societies around the world that seem to engage in environmentally destructive behaviour. But the argument is problematic in linking externally observed behaviour to the denial of deep-rooted cultural traits.

Humans behave in one way or another for various reasons. They might behave contrary to their

inner convictions for reasons of stress, fear, shame, addiction, trauma, greed, anger and other internal and external compulsions. Therefore, if external behaviours contradict what are observed to be deep-rooted cultural convictions, a careful and holistic investigation of possible factors and compulsions is necessary. Thus, if Indigenous societies engage in environmentally destructive behaviour as they are progressively industrialised, this does not necessarily imply an absence of ecological thinking. Instead, the problem lies in the coercive power, direct or tacit, of storyselling.

Like other Indigenous peoples around the world, as the Aka Hrussos become increasingly drawn into the modern world through formal education, digital media, and development discourse, they are confronted with Western and mainland Indian epistemologies, often imposed upon them through various forms of storyselling. There is insurmountable pressure to conform to the demands of so-called development and progress, and to move into modernity, discarding their worldview and heritage. Such pressure is often

successful and results in Indigenous communities embracing the values of modernity, which entails manifesting destructive attitudes and behaviour towards Nature.

4.3 Mythological Constructs vs Scientific Truth?

The clash of these two different worldviews leads to the crucial question of whether Indigenous epistemologies are inherently incompatible with progress, and, more fundamentally, about the truth of the assumptions upon which Indigenous relationships with Nature are built (as opposed to the concept of scientific truth on which the modern understanding of intellectual and economic progress is based). This question is often asked in discussions on Indigenous



Like other Indigenous peoples around the world, as the Aka Hrussos become increasingly drawn into the modern world through formal education, digital media, and development discourse, they are confronted with Western and mainland Indian epistemologies, often imposed upon them through various forms of storyselling.

knowledge systems and their place in modernity (Lévi-Strauss 1978, Alexander et al 2011, Lauter 2023). Storyselling processes frustrate any meaningful engagement with this question, since they position Indigenous cultures as vestiges of unfounded traditions with no relevance to contemporary knowledge systems. This perspective fails to acknowledge that Indigenous knowledge is often empirical, based on centuries of observation, adaptation, and lived experience camouflaged in linguistic and cultural symbolism.

Romanticisation takes an opposite but equally problematic stance, treating Indigenous knowledge as inherently superior to scientific discovery. This is often evident in pseudoscientific claims that exaggerate Indigenous insights beyond their actual intent and empirical grounding, asserting, for instance, that traditional practices align with, or are superior to, cutting-edge scientific discoveries.

5. Conclusion: What can Indigenous Cultures Teach us?

At this time of ecological crisis, a path towards finding solutions could be established via the awareness that ecological deterioration and Indigenous linguistic-cultural endangerment are interconnected, both arising from the same underlying cause: the currently dominant worldview that exploits both Nature and Indigenous communities in the name of progress. These two phenomena also share an unfortunate trajectory of misdiagnosis and ineffective remedial



At this time of ecological crisis, a path towards finding solutions could be established via the awareness that ecological deterioration and Indigenous linguistic-cultural endangerment are interconnected, both arising from the same underlying cause: the currently dominant worldview that exploits both Nature and Indigenous communities in the name of progress.

strategies. On the environmental front, recent scientific advancements in ecological science have led to significant progress in climate studies, ecosystem restoration, biodiversity conservation, and sustainable technologies. The integration of artificial intelligence in ecological research, urban ecological modelling, and the expansion of renewable energy solutions have all contributed to efforts aimed at mitigating environmental degradation. However, despite these advancements, the ecological crisis continues to escalate, raising concerns that humanity may have already reached an irreversible tipping point.

Similarly, substantial progress has been made in the field of language and cultural documentation and reclamation. Advances in linguistic methodologies, digital tools, and pedagogical strategies have contributed to the documentation of endangered languages, the

publication of grammars and dictionaries, and the creation of digital repositories (Woodbury 2003, Himmelmann, Gippert and Mosel 2006, Czaykowska-Higgins 2007, Schultze-Berndt 2006, Ashmore 2008, Seifart 2008, Furbee 2010, Austin and Sallabank, 2011, Di Carlo and Good 2014, Leonard 2018, Austin 2021, among others). Despite these achievements and a significant investment of financial and intellectual resources, the crisis of linguistic and cultural endangerment continues unabated (Roche 2020), mirroring the ecological crisis in its intractability.

A critical examination of these parallel crises reveals a fundamental flaw in the dominant approaches that seek to address them: an over-reliance on technocratic solutions coming from an arrogant and scientistic view of Nature and humans as manipulable entities. Pope

Francis critiques this "technocratic paradigm" as inadequate for resolving problems that are fundamentally human (Pope Francis 2015). The technocratic paradigm is blind to the fact that the root of today's ecological crisis is found in the currently dominant triumphalist, anthropocentric worldview. In finding solutions to the ecological crisis, this paradigm operates from a false sense of confidence in human scientific capabilities with the illusion that Nature can be forced to bend to humanity's will. Similarly, in the area of linguistic-cultural endangerment, the technocratic paradigm does not concern itself with the sociopolitical and eco-destructive processes that are at the heart of the problem, but instead primarily focuses on developing increasingly sophisticated tools like automatic parsing models, grammars full of scientific jargon and sleek translation apps.¹³ Such solutions are bound to fail, since they do not address the root of the crisis.

The way forward, therefore, is a respectful dialogue between modern science and Indigenous epistemologies, involving a mutual story-sharing and collaborative story-building. It will require



The way forward, therefore, is a respectful dialogue between modern science and Indigenous epistemologies, involving a mutual story-sharing and collaborative story-building.

recognising that Indigenous knowledge systems often embed ecological truths in mythological narratives and practices that reflect millennia of locally rooted observation, challenging the Western fact/ myth binary (Smith 1999; Woods 2023). These knowledge systems do not seek to conform to the Western notions of *scientific truth* and its methodologies but serve to explain, interpret and provide meaning to human existence in relation to the cosmos. Meanwhile, scientific truth relies on rigorous empirical validation and methodological skepticism, striving for objective and verifiable knowledge. An awareness of mutual strengths and inadequacies can serve as the foundation for an integrated approach that values Indigenous knowledge not as a primitive antecedent to scientific thought, but as an alternative and valid way of knowing, one that offers

perspectives on sustainability, relationality and ecological ethics that modern science alone cannot provide. Rather than positioning the two in an adversarial dichotomy, an approach that fosters epistemic humility and dialogue can open new pathways for an enriched understanding of both the natural world and humanity's place within it.¹⁴

Among several promising pathways for such a respectful dialogue I will mention two here.

First, the concept of relationality, which has come to be explored rather extensively in scholarly literature in recent times (Kohn 2013, Berkes 2017; Aiyadurai 2021). As we have seen above, this concept lies at the very heart of Indigenous existence. While science tends to regard the idea of the relatedness of all life through a common ancestry as an empirical fact to be studied with dispassionate objectivity, Indigenous cultures have long woven entire worldviews, ethical codes and relational practices around this insight. Kinship with the land, plants, animals, rivers and the unseen spirit world is not merely metaphorical but ontologically real for these cultures.

The concept of relationality has been operationalized in some parts of the world through policies such as recognizing the rights of rivers and forests as legal persons (O'Donnell and Talbot-Jones 2018). Likewise, community-led forest conservation efforts in the Amazon Basin, shaped by Indigenous frameworks of stewardship, ritual practice and intergenerational ecological knowledge, are shown to be much more effective than external, technology-based solutions (Walker et al 2020). These examples demonstrate how modern legal and scientific frameworks can be recalibrated through Indigenous perspectives that are based on the interdependence of all life forms.

A second area for a fruitful dialogue that has been seldom explored is the fear of Nature. This dialogue would begin with the recognition that fear is a necessary affective response to threat—an instinct rooted in evolutionary history, essential for protection from danger. The absence of fear when fear is necessary is a sign of pathology, not of mastery. Just as a person



The most significant contribution Indigenous cultures can make to the future trajectory of planetary healing, therefore, lies in restoring the paradigm of relationality—the vision of an interconnected web of beings and a true sense of kinship in our engagement with Nature.

who lacks the instinctive fear of wild animals might approach a tiger playfully and suffer fatal consequences, modern industrial societies, emboldened by technological prowess, have grown collectively insensitive to the ever-escalating dangers of ecological exploitation. A pathological absence of what might be called the “primordial fear” of Nature, essential to humanity’s collective survival, has become a defining feature of industrialised modernity. Indigenous cultures, in

contrast, preserve a nuanced and often ritualised awareness of Nature’s power and unpredictability. They remind us that a healthy fear can be part of wisdom, a sign of respect for the non-human world and an acknowledgment of human vulnerability within it. At the same time, it must be recognised that in some contexts, excessive or paralysing fear of Nature may hinder the well-being of Indigenous communities. Here, modern science can offer important correctives: reinterpreting natural phenomena, providing tools for risk management, and affirming agency where fear has become debilitating.

In such a dialogue across knowledge systems, the point of departure must be the acknowledgment that the contemporary ecological crisis stems from a breakdown in human-to-human and human-to-Nature relationships. The most significant

contribution Indigenous cultures can make to the future trajectory of planetary healing, therefore, lies in restoring the paradigm of relationality—the vision of an interconnected web of beings and a true sense of kinship in our engagement with Nature. This restoration entails reviving a profound, affective sense of love, reverence and even a healthy fear as the starting point of a long journey.

Acknowledgements

I gratefully acknowledge the Laudato Si' Research Institute, based at Campion Hall, University of Oxford, for awarding me the 2024 Integral Ecology Visiting Fellowship, which supported the writing of this paper. This Research paper stems from my public lecture of the same title delivered at LSRI in November 2024. I thank Dr Timothy Howles, Dr Séverine Deneulin and Harriet David for their insightful comments and feedback. I am also grateful to all my Aka Hrusso friends, elders and collaborators, especially Mr Biga Nimasow, Mrs Anu Jebisow and Miss Yachi Jebisow for their story-narration and insights. Field research for this paper was partially funded by the North Eastern Institute of Language and Culture (NEILAC), Guwahati, and the International Working Group for Indigenous Affairs (IWGIA), Copenhagen.

About the Author

Vijay A. D'Souza is the first LSRI Integral Ecology Visiting Fellow (2024–2025). He is currently Director of the North Eastern Institute of Language and Culture (NEILAC) in Guwahati, India. The Institute seeks to empower indigenous communities to retain, reclaim, and reshape their linguistic and cultural heritage. It does so by collaborating with communities to document, preserve, study, and promote their languages.

Through the Integral Ecology Visiting Fellowship, Vijay has studied intersections between language, culture, poverty, and ecology, drawing on empirical data gathered from the Hrusso and Koro tribes of north-eastern India. This work will contribute to the ongoing development of methods and tools for language empowerment, with special reference to the language–ecology connection.

Vijay has worked with the Hrusso indigenous community of Arunachal Pradesh for over 25 years, contributing to the development of orthography and the successful revival of the Hrusso language. A member of the Jesuit order, he continues the Jesuit tradition of deep respect for indigenous cultures and languages, and seeks to learn from and collaborate with linguistic communities of North East India. He specialises in phonology, language documentation, language description, and the revitalisation of endangered languages and cultures. His fields of interest also include language and ecology, language and identity, and mother tongue education.

References

- Aguiar, William and Halseth, Regine. 2015. *Aboriginal Peoples and Historic Trauma: The Process of Intergenerational Transmission*. National Collaborating Centre for Aboriginal Health.
- Aiyadurai, Ambika. 2021. *Tigers are our Brothers: Anthropology of Wildlife Conservation in Northeast India*. Oxford University Press.
- Akena, Francis A. 2012. "Critical Analysis of the Production of Western Knowledge and its Implications for Indigenous Knowledge and Decolonization". *Journal of Black Studies* 43 (6), 599–619. doi.org.10.1177/0021934712440448.
- Alexander, Clarence, Bynum, Nora, Johnson, Elizabeth et al. 2011. "Linking Indigenous and Scientific Knowledge of Climate Change". *BioScience* 61 (6), 477–484. doi.org.10.1525/bio.2011.61.6.10.
- Allen, Barry. 2023. "Indigenous Epistemologies of North America". *Episteme*, 20 (2), 324–336. doi.org.10.1017/epi.2021.37.
- Ashmore, Louise. 2008. "The Role of Digital Video in Language Documentation". In *Language Documentation and Description*, edited by P. K. Austin (Vol. 5), SOAS, 77–102.
- Austin, Peter K. 2021. "Language Documentation and Language Revitalization". In *Revitalizing Endangered Languages: A Practical Guide*, edited by J. Sallabank and J. Olko, Cambridge University Press, 199–219. doi.org.10.1017/9781108641142.014
- Austin, Peter K. and Sallabank, Julia (eds.). 2011. *The Cambridge Handbook of Endangered Languages*. Cambridge University Press.
- Berkes, Fikret. 2017. *Sacred Ecology* (4th ed.). Taylor & Francis.
- Campbell, Jeffrey Y. 2019. "No Sustainable Development Without Indigenous Peoples. Retrieved SDG Knowledge Hub". Accessed 01 November, 2024. <https://sdg.iisd.org/commentary/guest-articles/no-sustainable-development-without-indigenous-peoples>.
- Coțofană, Alexandra and Kuran, Hikmet. 2023. *Sentient Ecologies: Xenophobic Imaginaries of Landscape* (Vol. 31). Berghahn Books. doi.org.10.2307/j.ctv36cj81n
- Czaykowska-Higgins, Ewa. 2007. "Research Models, Community Engagement, and Linguistic Fieldwork: Reflections on Working within Canadian Indigenous Communities". *Language Documentation & Conservation*, 3 (1), 15–50.
- Desjarlais, Cerynn D. 2020. *An Exploration of Indigenous Spiritual Microaggressions*. PhD diss., University of North Dakota.
- Di Carlo, Pierpaolo, & Good, Jeff. 2014. "What are we Trying to Preserve? Diversity, Change, and Ideology at the Edge of the Cameroon Grassfields". In *Endangered Languages: Beliefs and Ideologies in Language Documentation and Revitalization*, edited by P. Austin & J. Sallabank, Oxford University Press, 229–262.
- Dobbs, D. 1994. "Natural Right and the Problem of Aristotle's Defense of Slavery". *The Journal of Politics*, 56 (1), 69–94. doi.org.10.2307/2132346.
- D'Souza, Vijay A. 2013. "Ripples of Influence: The Aka Worldview of Creation and its Relevance to Christianity". In *The Quest for Harmony*, edited by V. A. D'Souza, Y. Vashum and L. Ralte, Guwahati: North Eastern Social Research Centre, 376–396.
- D'Souza, Vijay A. 2021. *Aspects of Hrusso Aka Phonology and Morphology*. PhD Diss., University of Oxford.
- Everett, Dan. (2009). *Don't Sleep, There are Snakes: Life and Language in the Amazonian Jungle*. Profile.
- Fanon, Franz. 1967. *Black Skin, White Masks*. Grove Press.
- Fanon, Franz. 2001. *The Wretched of the Earth*. Translated by C. Farrington. Penguin.

- Fernández, Belén. "The murders of Indigenous activists mark the death of the planet". Al Jazeera, 08 September 2023. <https://www.aljazeera.com/opinions/2023/8/9/the-murders-of-indigenous-activists-mark-the-death-of-the-planet> (retrieved February 14, 2025)
- Fricker, Miranda. 2007. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford University Press.
- Furbee, Lenore A. 2010. "Language Documentation: Theory and Practice". In L. A. Grenoble and L. Furbee (eds.), *Language Documentation: Practice and Values*, John Benjamins, 289–309.
- Harmon, David. 1996. "Losing Species, Losing Languages: Connections between Biological and Linguistic Diversity". *Southwest Journal of Linguistics*, 15, 89–108.
- Hill, Cassandra J.; Schuster, Richard; and Bennett, Joseph R. 2019. "Indigenous Involvement in the Canadian Species at Risk Recovery Process". *Environmental Science & Policy*, 94, 220–226. doi.org/10.1016/j.envsci.2019.01.017
- Himmelman, Nikolaus P.; Gippert, Jost and Mosel, Ulrike (eds.). (2006). *Essentials of Language Documentation*. Mouton de Gruyter.
- Jesús, Aisha. M. Beliso-De; Pierre, Jemima and Rana, Junaid. 2023. "White Supremacy and the Making of Anthropology". *Annual Review of Anthropology*, 52, 417–435. doi.org. 10.1146/annurev-anthro-052721-040400.
- Kidd, Ian James; Medina, Josè, & Pohlhaus, Gaile Jr. (eds.). 2017. *The Routledge Handbook of Epistemic Injustice*. Oxford University Press.
- Kohn, Eduardo. 2013. *How Forests Think: Toward an Anthropology beyond the Human*. University of California Press.
- Kopenawa, Davi and Albert, Bruce. 2023. *Falling Sky: Words of a Yanomami Shaman* (translated by N. Elliott and A. Dundy). Belknap Press.
- Krauss, Michael. 1992. "The World's Languages in Crisis: Endangered Languages". *Language*, 68 (1), 4–10. doi.org/10.1353/lan.1992.0075.
- Lauter, Olga. 2023. "Challenges in Combining Indigenous and Scientific Knowledge in the Arctic". *Polar Geography*, 46 (1), 62–74. doi.org/10.1080/1088937X.2023.2233578.
- Leonard, Wesley Y. 2018. "Reflections on (De)colonialism in Language Documentation". In *Reflections on Language Documentation 20 years after Himmelmann 1998*, edited by B. McDonnell, A. L. Berez-Kroeker and G. Holton, University of Hawai'i Press, 55–65.
- Lévi-Strauss, Claude. 1969. *The Raw and the Cooked: Introduction to a Science of Mythology*, Vol. 1 (translated by J. Weightman and D. Weightman). Harper & Row.
- Lévi-Strauss, Claude. 1978. *Myth and Meaning*. University of Toronto Press.
- Lugard, F. D. 1922. *The Dual Mandate in British Tropical Africa*. William Blackwood & Sons. Retrieved from: www-empire-amdigital-co-uk.ezproxy-prd.bodleian.ox.ac.uk/documents/detail/4086037
- Maffi, L. 2005. "Linguistic, Cultural, and Biological Diversity". *Annual Review of Anthropology*, 34 (1), 599–617. doi.org/10.1146/annurev.anthro.34.081804.120437
- Maffi, Luisa. 2007. "Biocultural Biodiversity and Sustainability". In *The Sage Handbook of Environment and Society*, edited by J. N. Pretty, A. Ball, T. Benton, et al, Sage Publications, 267–278.
- Maffi, Luisa. 2018. "Biocultural Diversity". In *The International Encyclopedia of Anthropology*, edited by H. Callan and S. Coleman, John Wiley & Sons, 1–14.
- Milton, Kay. 1996. *Environmentalism and Cultural theory: Exploring the Role of Anthropology in Environmental Discourse*. Taylor & Francis.
- Mühlhäusler, Peter. 1995. "The Interdependence of Linguistic and Biological Diversity". In *The Politics of Multiculturalism in Asia/Pacific*, edited by D. Myers, North Territory University Press.
- Ngũgĩ wa Thiong'o. 1986. *Decolonising the Mind: The Politics of Language in African Literature*. London: James Currey.

- Niigaaniin, Mamaweswen and MacNeill, Timothy. 2022. "Indigenous Culture and Nature Relatedness: Results from a Collaborative Study". *Environmental Development*, 44, doi.org/10.1016/j.envdev.2022.100753.
- Nimachow, Gibji. 2011. *The Akas: Land and People*. Commonwealth Publishers.
- Nitnaware, H. 2024. "Activists allege Thousands of Trees felled in Hasdeo for Coal Mining". Down To Earth. <https://www.downtoearth.org.in/forests/activists-allege-thousands-of-trees-felled-in-hasdeo-for-coal-mining-93718> (retrieved February 14, 2025).
- O'Donnell, Erin L., & Talbot-Jones, Julia. 2018. "Creating Legal Rights for Rivers: Lessons from Australia, New Zealand, and India". *Ecology and Society*, 23 (1). doi.org/ 10.5751/ES-09854-230107.
- Phillips, T. (2020, January 24). "Jair Bolsonaro's racist comment sparks outrage from indigenous groups". The Guardian. <https://www.theguardian.com/world/2020/jan/24/jair-bolsonaro-racist-comment-sparks-outrage-indigenous-groups>.
- Pope Francis. (2015). *Laudato si': On Care for our Common Home*. https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.
- Quijano, Anibal. 2000. "Coloniality of Power, Eurocentrism and Latin America". *Nepantla: Views from South*, 1 (3), 533–580.
- Roche, Gerald. 2020. "Abandoning Endangered Languages: Ethical Loneliness, Language Oppression, and Social Justice". *American Anthropologist*, 122 (1), 164–169. doi.org/: 10.1111/aman.13372
- Schultze-Berndt, Eva. 2006. "Linguistic Annotation". In *Essentials of Language Documentation*, edited by N. P. Himmelmann, J. Gippert and U. Mosel. Berlin: Mouton de Gruyter, 213–252.
- Seifart, Frank. 2008. "On the Representativeness of Language Documentations". In *Language Documentation and Description*, edited by P. K. Austin (Vol. 5), SOAS, 60–76.
- Shah, Alpa. 2024. *The Incarcerations: BK-16 and the Search for Democracy in India*. William Collins.
- Skutnabb-Kangas, Tove. 2000. *Linguistic Genocide in Education—or Worldwide Diversity and Human Rights?* Routledge.
- Smith, Linda Tuhiwai. 1999. *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books.
- Spivak, Gayatri Chakravorty. 1988. "Can the Subaltern Speak?" In *Marxism and the Interpretation of Culture*, edited by C. Nelson and L. Grossberg, University of Illinois Press, 271–313.
- Survival International. 2020. "Outrage from Indigenous leaders: Notorious 'Factory School' for 30,000 children set to host World Congress of Anthropology". <https://www.survivalinternational.org/news/12423> (retrieved 09 August, 2024)
- Valkonen, Jarno. and Valkonen, Sanna. 2014. "Contesting the Nature Relations of Sámi Culture". *Acta Borealia*, 31 (1), 25–40. doi.org/10.1080/08003831.2014.905010.
- Walker, Wayne S., Gorelik, Seth R., Baccini, Alessandro, et al. 2020. "The Role of Forest Conversion, Degradation, and Disturbance in the Carbon Dynamics of Amazon Indigenous Territories and Protected Areas". *Proceedings of the National Academy of Sciences*, 117 (6), 3015–3025. doi/org/10.1073/pnas.1913321117.
- Warrior, Robert A. (ed.). (2015). *The World of Indigenous North America*. Routledge.
- Woodbury, Anthony. C. (2003). "Defining Documentary Linguistics". In *Language Documentation and Description*, edited by P. K. Austin (Vol. 1), SOAS, 25–51. London: SOAS.
- Woods, Lesley. (2023). "Something's gotta change". Canberra: Australian National University. <https://press.anu.edu.au/publications/series/asia-pacific-linguistics/somethings-gotta-change>.

Endnotes

- 1 The Aka (Hrusso) community is also referred to in the literature as Aka, Hrusso Aka, Hrusso, or Hruso. The community currently prefers the term Aka (Hrusso) for official purposes, and uses the autonym <Ġusso> [yùso] internally. In this article, the form Aka Hrusso is used (omitting the brackets for readability during frequent use_ while respecting the community's preferred terminology and in consultation with community representatives.
- 2 I use the word "stories" to denote the sum of oral and written narratives: mythology, songs, news, law, folklore, oral history, and so forth.
- 3 This concept is introduced in Aristotle's *Politics*, book 1, section 1254b. See also Dobbs 1994).
- 4 While drawing on earlier works on coloniality such as Ngũgĩ wa Thiong'o's mind colonisation (Ngũgĩ wa Thiong'o 1986), Fanon's internalised inferiority (Fanon 1967), Fricker's epistemic injustice (Fricker 2007), and Spivak's subaltern silence (Spivak 1988), the concept of storyselling offers a distinct framing. It describes the mechanism of induced internalisation and repetition of colonial narratives by both elite and subaltern members of a colonised group. It focuses especially on how storyselling aims to induce a process of self-erasure, wherein colonial meaning systems are implanted as desirable, leading to the erosion of Indigenous worldviews from within.
- 5 The self-shame spiral is a cyclical process observed among marginalised communities. It begins with low self-esteem, leading to various insecurities that cause individuals to withdraw from their own linguistic and cultural heritage. This often results in feelings of failure in school and society, reinforcing the belief that their language, culture and way of life has no value. Consequently, they may choose not to transmit their language and culture to their children, thus perpetuating the cycle of shame and loss. The self-shame spiral is a cyclical process observed among marginalised social actors and artists. It begins with low self-esteem, leading to various insecurities that cause individuals to silence the minoritised languages in their repertoire and heritage. This often results in feelings of failure in school and society, reinforcing the belief that their language has no value. Consequently, they may choose not to transmit the language to their children, thus perpetuating the cycle of shame and loss (Elatiana Razafimandimbimanana, personal communication, 20 May 2022).
- 6 *Bos frontalis*, a semidomesticated bison reared as a measure of wealth and used in gift exchange, for meat, and for ceremonial sacrifice.
- 7 Note that the word for the corpse is *nimo*, where the prefix most probably derives from *nū* "physical essence" and the second part is *mo* "cease to exist".
- 8 Referring to the expanses of water and earth respectively. (From Anu Jebisow, personal communication, 20 October 2024).
- 9 Narrated by Biga Nimasow, Palizi village, April 2000.
- 10 This subsection is revised and updated from D'Souza 2013.
- 11 The term used for the tiger in the story, *hūtrū*, is a generic term for big cats. Some consider the Himalayan leopard to be the animal in the story.

- 12 An Indigenous community of Arunachal Pradesh, India.
- 13 This is not a critique of technology per se, but a recognition that, without addressing the deeper issues of sociopolitical marginalisation, technological interventions are likely to be ineffective. For a fuller discussion, see Roche 2020.
- 14 For a discussion on how scientific knowledge can complement Indigenous ecological understanding, particularly in contexts of environmental risk and sustainability, see Berkes 2017, who advocates for respectful integration through knowledge co-production and adaptive management.