

Special Issue

Healing in the damage: Towards novel perspectives on
human-environment entanglements in the Americas

Cultura preventiva:
Preventive healing in the Northwestern Amazon, Brazil

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Abstract

Indigenous anthropologists from the Upper Rio Negro call what their religious specialists do a “preventive culture” (*cultura preventiva*), referring to a specific temporality that structures their strategies of healing. Their form of healing reaches back to a mythical primordium, drawing on the transformative power of creation time to secure existence in the present. Preventive healing in Northwestern Amazonia is based on a cyclic understanding of time, tantamount to accompanying foreseeable, periodic moments of transformation at every cosmic level. Regular interventions through healing methods, or “applications”, provided by ritual specialists (*kumuã*) offer protection against the consequences of inherent conflicts within the temporal and spatial framework of the cosmos. Such “preventive healing” in Northwestern Amazonia can also be seen as healing of damage done during creation time. *Keywords*: Healing, Northwestern Amazonia, cosmology, shamanism, Indigenous anthropology.

Resumen: Cultura preventiva: Sanación preventiva en la Amazonía noroccidental, Brasil

Los antropólogos indígenas del Alto Río Negro denominan a la práctica de sus especialistas religiosos una “cultura preventiva”, aludiendo a una temporalidad específica que estructura sus estrategias de sanación (*healing*). Su tipo de sanación se remonta a un principio mítico: el poder transformador del tiempo de la creación se aprovecha hoy para asegurar la existencia presente. La sanación preventiva en la Amazonía noroccidental se basa en una comprensión cíclica del tiempo, que acompaña momentos previsible y periódicos de transformación en todos los niveles cósmicos. Las intervenciones regulares de métodos de sanación, o “aplicaciones”, impartidas por especialistas rituales (*kumuã*) ofrecen protección frente a las consecuencias de los conflictos inherentes al marco temporal y espacial del cosmos. En este sentido, la “sanación preventiva” en la Amazonía noroccidental también puede entenderse como la sanación de un daño causado durante el tiempo de la creación. *Palabras clave*: Sanación, noroeste de la Amazonía, cosmología, chamanismo, antropología indígena.

Introduction

Along the probably most famous beach worldwide, the Copacabana in Rio de Janeiro, runs the Avenida Atlântica, a broad boulevard lined with a pavement in the so-called *calçada portuguesa* style. This is characterised by a design made of dark and white cobblestones. The so-called Calçadão de Copacabana is laid out in an undulating design, symbolising the nearby Atlantic waves. The design not only mirrors the beauty of the maritime environment but is also thought of as an homage to the Portuguese seafarers, who came over the waves of the Atlantic to take possession of this land, which was to become Brazil. Ironically, the *Calçadão de Copacabana* is said to have been inspired by the pavement on the *Largo São Sebastião* in Manaus, right in front of the (in)famous *Teatro de Amazonas*, built at the height of the rubber boom. These twentieth-century icons of Brazilian (neo)colonialism represent both European conquest and the subsequent exploitation of the new land's natural resources; their geography brackets the frontiers of Brazil's colonial history. No wonder that the conquered and exploited Indigenous peoples of this land tell a completely different story.

The colonial celebration of the Portuguese conquerors, expressed in the symbolism of the pavement at the Copacabana beach, is challenged by a decolonial counter-narrative as explained by the peoples of the multi-ethnic Upper Rio Negro region¹. According to this mythological narrative (*kihti ukuse*), the humans of primordial time embarked on an epic journey from this place of origin – the Guanabara Bay – in the belly of a Snake Canoe (also called Canoe of Transformation). The undulating design of the pavement does not symbolise the waves of the sea crossed by the Conquerors but shows the skin patterns and movements of the ophidian vessel. The Snake Canoe travelled up north along the Brazilian coast, entered the Amazonas, where today is the city of Belém, travelled upriver to where today is Manaus, and then turned right into the Rio Negro. The Canoe of Transformation and its passengers then travelled in a northwestern direction up to the border region of Brazil and Colombia into the ramified river system of the Upper Rio Negro. At every prominent location in this fluvial landscape, such as rapids or rocky formations, a group of passengers disembarked to settle there. Thus, the complex web of social groups in the Upper Rio Negro and their hierarchical yet dynamic relations came into existence. These settlements structured the territories of Northwestern Amazonia and transformed it into a sentient landscape, as the places of disembarkation became “houses” (*wi*), reservoirs of transformative healing power carried by the ophidian Canoe of Transformation.

In times when nature imposes herself ever more on humans and non-humans (Latour, 2015; Hamilton, 2020), the Environmental Humanities intensify their efforts to better understand human strategies for coping with the manifold damages caused by this crisis, or rather the systemic conditions under which these damages have occurred. The more comprehensive understanding of healing – thinking beyond conventional concepts of healing as mere medical intervention – takes into account issues of gender, marginalisation, and Indigeneity. This

concept of healing is shaped by a historical awareness of the connection between the severe impacts of the climate crisis and coloniality (Ghosh, 2021; Leigh Goffe, 2025).

It makes sense that the notion of healing has been developed within the context of North American academic events that have been turned into rituals by participating Indigenous peoples (for example, Indigenous curation of museum exhibitions; Phillips, 2011, p. 298). These events went beyond the source communities' demand for representation of Indigenous heritage. In fact, the experience of recognition had a cathartic effect on members of the Indigenous collectives, not unlike psychotherapeutic techniques (González-Hidalgo et. al., 2022; Middleton, 2010). Likewise, Northwest-Amazonian healing knowledge survived the onslaught of coloniality. For decades, Salesian missionaries had established a boarding school system with the intention to devalorise and eradicate Indigenous language and knowledge (Rezende, 2018). The appreciative inclusion of this knowledge and its practitioners within academic structures, health care, museum work, etc., contributed to healing colonial wounds and restored new self-confidence to cope with the negative ramifications of enduring neo-colonial conditions.

It is important to note that this paper, while we concede the healing effect of intellectual recognition, is actually about healing knowledge and techniques in a *pragmatic* sense: it is about strategies of healing, which can be applied in acute cases, but which first and foremost are used as a policy to avoid harmful cosmological conflicts in a *prophylactic* manner. Thus, we make a case for healing *before* the damage, i.e. stabilising strategies, which accompany precarious moments of transformation. To hold in check the conflicts that have existed since creation and to remedy their consequences, permanent interventions by specialists are necessary at every level of life, be it on individual or collective occasions. This article shows that, in its peculiar cyclic temporality, the present time taps into the primordial past to secure future time. The aim of these interventions is to avoid these disturbances and conflicts before they occur, thus creating, what the Indigenous authors of this paper call a “culture of prevention” (*cultura preventiva*).

Antropologia indígena

Healing demands a decolonial approach not only on moral grounds but also epistemologically: it calls for a „radical transformative scholarship“ (Hosseini & Gills, 2020, p. 15), more often than not informed by the knowledge and practice of those social collectives most threatened by climate change. Anthropological work on Amazonia has come to emphasise the allegedly “radical alterity” (Graebner, 2015, on Viveiros de Castro; see Viveiros de Castro, 2015, 2017) of Indigenous ontologies and epistemologies. This “thinking otherwise” (Povinelli, 2022) was attributed the transformative power needed to *heal* the damage the

Global North has inflicted on itself and the rest of the world (Latour, 2009; Viveiros de Castro, 2014).

In his groundbreaking book *The Falling Sky* (2013), Davi Kopenawa, as a representative of the Indigenous peoples of the Amazon forest, writes back to those Western thinkers who consider Indigenous peoples as the first candidates to make diverse epistemologies available (cf. Levis et. al., 2024; Taddei, 2025; Whyte, 2017). However, what is assumed to be differential is often just as grounded in Western mental structures. Applying certain Western categories to Indigenous epistemologies remains stuck in dualisms, more often than not, long considered overcome. A case in point is ascribing the “non-rational” part to Indigenous epistemologies on the grounds of the alleged marginalisation of “non-rational” elements in Western society (Vasudevan et. al., 2023). Indigenous scholars like co-author João Paulo Barreto object to reducing Indigenous thinking to categories like “religious” or “spiritual”, insisting that the translation of Indigenous knowledge of the Upper Rio Negro through keywords like that would be equivocal.

It should be clear that premature categorising misses an important step in Indigenous anthropological reasoning. Indigenous anthropology emphasises the important moment of reflexivity, the moment of “thinking the Indigenous thinking” (*pensar o pensamento Indígena*). Avoiding the trap of self-fulfilling “insights”, such as “living in harmony with nature”, means pausing for a moment and taking seriously how Indigenous scholars systematise and theorise reality. Co-author João Paulo L. Barreto explains during our discussions in 2025, “cosmopolitics” of the Upper Rio Negro as follows:

Inspired by anthropological reflections already developed in the region, we [Indigenous scholars of the Upper Rio Negro] seek to develop an approach that reflects our perceptions as Indigenous people and highlights the concepts, philosophies, and epistemologies that structure our knowledge system. Our effort is not based on the denial or exclusion of previous anthropological research produced from a Western perspective, but rather on an expansion of the scope of anthropological knowledge, bringing an internal and autonomous perspective that dialogues with these productions. By analysing our own knowledge systems from our perspective as Indigenous people, we can access our epistemological conceptions with greater “precision” and depth. This occurs because our reflections and practices are guided by a particular worldview, rooted in our traditions, social relations, and our own ways of understanding and interacting with the world. Thus, we seek to offer a sensitive and authentic lens that enables closer and more genuine access to Indigenous philosophy and thought.

Methodology

This article is the result of collaboration among four Indigenous anthropologists from Northwestern Amazonia (Upper Rio Negro) and two non-Indigenous co-authors. The concept of an *Antropologia Indígena* shaped the modalities of our collaboration. All Indigenous co-authors but one are members of the research group *Núcleo de Estudos da Amazônia Indígena* (NEAI) of the postgraduate program of social anthropology (PPGAS) at the Federal University of Amazonas (UFAM) in Manaus, Brazil (see L. Barreto, 2018, 2022, 2024; S. Barreto, 2021, 2025; F. Fernandes, 2022; Núcleo de Estudos da Amazônia Indígena, 2018). In the context of the joint project “Nosology and Sustainability. Indigenous healing knowledge and sustainable human-environment relations in Northwestern Amazonia”, presential working sessions were held in person in Manaus during two month-long sojourns by co-author Wolfgang Kapfhammer, to discuss the content and structure of the article. These conversations continued via video conferences. Co-author Eveline Dürr guided the paper’s conceptual focus, in particular its relationship to healing. She thus connected this research to a broader project exploring the notion of “planetary healing” from an Indigenous perspective (Dürr & Rohrer, 2022). The fieldwork in Northwestern Amazonia has been conducted by the Indigenous co-authors as part of their respective academic careers. It is important to note that three of the co-authors from the Upper Rio Negro come from lineages of religious specialists (*kumuã*), which allowed them privileged access to an otherwise closed corpus of knowledge and practices. The Indigenous colleagues present their insights into Northwestern Amazonian epistemologies as decidedly contemporary yet deeply embedded in the (neo-)colonial history of Brazil. The empirical data and reflections on Northwestern Amazonian cosmology presented in this article are administered exclusively by the Indigenous co-authors, with only sparse references to non-Indigenous anthropological work on the region.

For the empirical section, texts were written in Portuguese by the Indigenous colleagues after the structure of this article, and the sequence of its parts had been determined. These texts have been edited and translated into English by Wolfgang Kapfhammer. The overall text has been adapted to international publication standards, while substantial sections were written by the co-authors after the team agreed to co-produce knowledge. Finally, the decision to publish this article in English was made to achieve greater visibility within the international field of anthropology (Latulippe & Klenk, 2020).

Northwest-Amazonian healing knowledge and practices have their cosmological history. Decisive cosmogonic deeds and events have shaped the world and left the means of production and reproduction in human hands. However, creation did not turn out to be perfect, leaving an inherent conflict in the cosmological framework. As will be shown, the origin of humankind has also produced its “left-behinds”. These Other-Humans, known as the Fish-People (*waimahsã*), are permanent adversaries of humans. As bringers of sickness and death, they

have to be permanently dealt with by shamanic specialists (*kumuã*). Relations to the Fish-People have to be maintained on a balanced level, because they are the “masters” of life-giving resources. We argue that Upper Rio Negro healing is “preventive healing” because the shamanic specialists are obliged to protect every precarious moment of transformation on all cosmological levels. Not doing so will inevitably result in serious consequences, including sickness and death. As we will show in this contribution, Northwest-Amazonian preventive healing works within a cyclic temporality and a spatiality defined by a highly differentiated sentient landscape. In this temporality, the present reaches into the primordial past, preventing conflicts before they arise. In this sense, the Indigenous co-authors consider their healing system as embedded in a “culture of prevention” (*cultura preventiva*). Furthermore, we will show how primordial knowledge and potential are manipulated by ritual practitioners (*kumuã*), who use mythical narratives (*kihti*) as an analytical framework to formulate their healing chants (*bahsese*). Finally, we argue that it is obedience to rules of prescription and restriction (*betise*) that anchors shamanic cosmopolitics in the everyday life of Northwest-Amazonian peoples. In the end, these body-centred healing measures can be scaled up to macrocosmic, planetary dimensions to secure the Good Life on the Upper Rio Negro and beyond.

In the following, we first introduce the fundamental principles of Northwest-Amazonian cosmology from the perspective of the Indigenous co-authors. We then empirically develop the concept of a “preventive culture”: its cosmological origin, its “application” as a healing system, and its sociability. We argue that Northwestern-Amazonian healing strategies are permeated by a concept of *transformation* across all scales of life. From the perspective of Northwest Amazonian scholars, the power to transform – established in mythical time as a precondition for sustaining life – is described in the *kihti ukuse* (myths).

The preventive culture of Northwestern Amazonia

According to Indigenous Anthropology, there are three major concepts – *Kihti ukuse* (mythical narratives), *Bahsese* (blessings), and *Bahsamori* (social practices) – which intertwine as the guiding thread of the thought, philosophy, and knowledge system of the Indigenous peoples of Northwestern Amazonia. In them, one can identify the specific concepts that help to understand the social practices and relationships to maintain the balance and sustainability of the terrestrial world: 1) *Kihti ukuse* (myths): These are stories of the social plots experienced by the demiurges, responsible for the origin and organisation of the world, humanity, beings, things, techniques, and landscapes. Within them, we find lessons, rules, obligations, the origin of diseases, and *bahsese*, etiquette, behaviours, and concepts; 2) *Bahsese* (shamanic healing practices): These chanted formulas are evoked by specialists for the protection, prevention, and cure of diseases. It is a metachemical manipulation of medicine production and a metaphysical manipulation of human protection. They are based on the

taxonomies of things and the organisation of spaces; 3) *Bahsamori* (social practices and rituals) is the set of social practices (among them the *betise* rules) related to the festivals and activities of daily life. Social practices are performed according to the appearance of specific constellations.

Today's world, with its shortcomings and inherent tensions, has its cosmological history. It unfolds through the acts of "spiritualised" creation figures, the voyage of a kind of proto-humanity, and the emergence of present-day humans and other-humans. Upper Rio Negro cosmogony provided all the means necessary for the reproduction of life on Earth. Given the imperfection of creation, it is indispensable that ritual specialists accompany all transformative processes of life to prevent potentially pathogenic disruptions.

Cosmogony

When the world began, there was only an Upper and a Lower World connected by a column. It had only a lower platform, an Underworld full of evils and sicknesses, and an upper tier, from where all the transformative processes started. In the middle of the column stood a round shield, which became the earthly tier; however, it was still without humans. The demiurges *Yepaoãku* and his sister *Yepálio*, descendants of *Buhpó* (Grandfather Universe), chanted to create their *bahsese* (chanted formulas). *Buhpó* is the ultimate source of power, the aggressive, but also healing *buhpó*-potential flows into the *bahsese* and is activated by sitting on a ceremonial bank and taking in coca, ayahuasca, and tobacco. However, the creator's son found this primordial world small and boring. He wanted to create a new, spacious world where he could live with his sister amid "perfect" human beings. When the earthen platform, pieced together from ritual paraphernalia and a little bit of earth given by *Buhpó* to install the spaces of earth, forest, air, and water, they wished to populate the Earth with humans. A first experiment failed, so they tried again to call forth the humans. The echo from the North, West, and East was only the harbinger of toil, sickness, and death. However, from the South they heard human voices (beings with "human potential"): the first *waimahsã*, the Fish-People. The attempt to make them immortal failed, so the demiurges decided to embark the (proto-)humans who still lingered in their cosmic limbo on a long voyage to bring humankind into this world by water. They built the Snake Canoe (*pirõ yuküsü*), also called the Transformation Canoe (*pamuri yuküsü*). Transformation (*pamuse*) is a complex cosmological concept that refers to transformational processes in life and the material world, such as pregnancy or the fermentation of manioc beer. The primordial occurrence of a transformation process (of humankind as a whole) took place during the voyage of the Transformation Canoe (*pamuri yuküsü*). This ophidian vessel is also called the *Snake Canoe* (*piro yuküsü*), thereby referring to a body-centred concept that parallels the bodies of snakes and women. The future humans still travelled "under the condition" of Fish-People (*sob condição de waimahsã*), they

wore a “fish-robe” (*sotiro*), while the demiurg *Yepaoãku* steered the vessel donning a “snake-robe”.

Voyage

From the Lake of Milk – the Guanabara Bay of Rio, of colonial geography – the proto-human beings travelled towards the Rio Negro in Northwest-Amazonia. During the long journey, the demiurg taught the travellers all knowledge and arts. At every stop of the snake-vessel, he released a group of voyagers now transformed into humans (*pamurimahsã*), who became the ethnic groups of the Upper Rio Negro. At the same time, groups of *waimahsã* (Fish-People) moved into their subaquatic “houses”. The stops of the vessel are known as “houses” (*pamuri wisseri*), where the material and immaterial knowledge of the different groups living in the Upper Rio Negro is guarded. In the moment of practising *bahsese* and *póose* (collective rituals), this memory is actualised and revived. There are innumerable “houses” along the Snake-Canoe’s journey, including Belém and Manaus, up to the final destination of Ipanore. An important separation occurred there when the demiurg released one part of the voyagers onto the surface of the earth under the condition of humans, while those he had passed over continued as *waimahsã* populating different spaces of the earth’s platform, i.e. the earth/forest, water, and air. This incident is explained by S. Barreto during our working sessions in 2025:

The existence of [Northwest-Amazonian] epistemologies builds on the historical context of the Transformation Canoe. ... Indigenous sciences were constructed along the journey by the *pa'miri masí* [*pamuri mahsã*], who became the prototype of the *kumu* as designer and constructor of sciences in Upper Rio Negro territory. Wherever groups of people disembarked, local knowledges evolved into sciences and technologies for the people’s lives. These places (*wamétise*) are named and deserve respect, silence and care. Every stop was left to a specific people within its own territory. These places became “houses” or centres of knowledge, where specialists gathered for rounds of talk, thus transmitting knowledge distributed throughout the voyage. This knowledge also organised the region’s social structures and hierarchies, marital relations, subsistence techniques, and the cosmopolitical web. Life-sustaining techniques are applied by the specialist to secure the abundance of food (*da'arase*), as well as the integrity of the human personhood (*bahsese*). The *kumu*, *ya'i* and *basegi* [ritual specialists] are the scientists of the territory. They do not only care for the health of the body, but also for social health.

The voyage established a specific temporal framework that fuses precolonial and colonial temporalities, as well as a spatiality in which colonial geography overlays Indigenous “geomythology”, as co-author Jaime Fernandes would frame it.

For the Upper Rio Negro peoples this life began in the Guanabara Bay in Rio de Janeiro, in the Lake of Milk, the place where the Transformation Canoe entered this world and began its journey to the Upper Rio Negro. On Saint Sebastian day, the non-Indigenous inhabitants of Rio de Janeiro celebrate the disembarkation of the Portuguese colonists at the very same place, while the peoples of the Upper Rio Negro commemorate their first contact with life (on earth) under the constellation of the *tatú* (armadillo) associated with the spawning migration of fish (*piracema*) at the time of high-water. This natural abundance strengthens people's lives and blood. A human being's veins are connected to the gourd of the universe, which in turn is connected to Guanabara Bay. The image of the Lake of Milk amalgamates various temporal and spatial registers: the location of Guanabara Bay, with its colonial history; the *tatú*-constellation associated with the abundance of food during the flood season; and the cosmic gourd as a source of all life. For the peoples of the Upper Rio Negro that lake is at the beginning of a person's life, where it first became connected to the gourd of milk. The Sugar Loaf hill (*Pão de Açúcar*) in Rio de Janeiro is a woman's breast from which the *kumu* drinks. This cosmic sense of place is shaped by the reasoning and interpretations of the *kumuã*. Thus, their "geomythological" reading transforms into "geomedicine", as Jaime Fernandes explains:

Guanabara Bay is the gourd of milk. When a *kumu* chants *bahsese* to bless a woman's first pregnancy, the woman will say to the father: 'I think I want to get pregnant.' What will the *kumu* do then? He will start giving blessings (*bahsese*), making contact with the Lake of Milk, and connecting with the Universe through the blood vine, so that the baby can be formed and prepared to enter this world. This is what we call Indigenous Geomedicine. Each place has its own type of blessing. Each place the Canoe of Transformation passes coincides with a woman's pregnancy until it arrives in Ipanure-Cachoeira. This way of accompanying the pregnancy is called geomedicine because it brings life into this world. The Indigenous woman is accompanied by geomythology and geomedicine, in which myth becomes a blessing and places become reference points for caring for humanity's health (Fernandes, 2021, p. 7).

Fish-People or *waimahsã*

Ultimately, the narratives and representations of Northwest-Amazonian healing practices all deal with the origin, communication, and relations with the *waimahsa* (Fish-People), "human beings under their own conditions" (Barreto, 2018) or "Other-Humans". Again, the Fish-People's existence has its cosmological history: they were the proto-humans called forth by the demiurg to become the passengers with "human potential" in the Canoe of Transformation, only to be left behind by the demiurg, while the good part of the voyagers transformed into today's humankind, the *pamuri-mahsã*. This rejection of becoming fully

human left the Fish-people with envy and anger towards humans: the root of the cosmopolitical conflict permeating daily life in the Upper Rio Negro. This primal conflict characterises Northwest-Amazonian ontology, exposing humankind to the permanent danger of illness and death, thus calling for continuous prophylactic intervention by the ritual specialists.

The Fish-People's existence is inextricably linked with human existence. At the same time, they are the prototypical "other", difficult to deal with, feared for their pathogenic revenge, but at the same time, indispensable for survival, as they are the masters of the resources of the diverse cosmological domains. Today, the *waimahsã* are beings which inhabit all spaces and habitats of the cosmos. They have all the human characteristics, except that they are invisible to everyone but specialists. They are the masters and protectors of their spaces and wear the names of the prominent beings (plants or animals) of their environment (e.g. the "tapir-people" or "tree people"). This animal or plant reference points to the abundance of the specific species in their territory. The animals and plants are the "pets" of the *waimahsã* at a certain place. Consequently, every time humans intend to extract a resource, they need the consent of its guardians. To cross the territories guarded by the Fish-People, one must first obtain their permission. Further, when a person is in a vulnerable condition during the body's precarious transformative moments, he or she will need protection from the Fish-People's attacks. This peculiar strategy of "preventive healing" called *wetidarero*, calls for the specialist's capacity to communicate with the *waimahsã* and calm them down by offering them gifts to transform their anti-social behaviour into benign sociality.

Besides their role as providers of material resources, the Fish-People also supply immaterial knowledge through the ritual specialists (*kumuã*). The *waimahsã* are owners of "first order" knowledge, transmitted to them by the demi-urg *Yepaoãkũ*, before it was made accessible to humans. They are the source of all human knowledge and creativity. Insofar as the *kumuã* depend on them, making communication and exchange with the Fish-People indispensable. Dealing with the Fish-People is brought forth by appropriating and activating their transformative power by specific "technologies" using tools available to the religious specialists. These activities follow a temporality that aligns parallel moments and rhythms of transformation across multiple scales. This temporality coordinates astronomic cycles, such as the appearance of certain constellations, phenological processes of flora and fauna, for example, the ripeness of palm fruit or the spawning migrations of fish, with human social and ritual events (Cabalar, 2018, 2010). These moments and rhythms must be accompanied by ritual interventions by ritual specialists to prevent disturbances and ruptures in relationships with the mischievous Other-Humans. Thus, Northwest Amazonian cosmic "diplomacy" with the Fish-People as healing practices is definitively prophylactic and, as such, embedded in a "preventive culture" (*cultura preventiva*) to mitigate the damage done in primordial times.

Practitioners or *kumuã*

The Fish-People live their own human reality behind an invisible, but permeable wall. From there, they reach out for humankind (on the Earth platform) by attacking them and sending them illness and death. Only the specialists (*kumuã*) are able to see them and interact with them. In the “genealogy” of manipulators of life force, the *kumuã* are those individuals of today’s humankind able to reach out for and activate primordial creativity. They dispose of a specifically transformed body/mind set, which enables them to communicate with the Fish-People in their otherworldly existence. As has been shown, they have to do so because they have knowledge of inherent cosmological conflictuality, are aware of the consequences this has for humans (the *pamuri-mahsã*), and act accordingly to prevent ruptures in the transformative processes of life. Knowledge and practice of healing by the *kumuã* are based on the concept of *omerõ*. *Omerõ* is the “potential” (*potencial*) or life-force, which emanates from the “door of the mouth” of the specialist; it is the powerful word that flows from his body. The *kumu*’s word articulates care with the individual and social body; this kind of orality is a technology to preserve health.

In practice, healing is brought about by the powerful words of the (almost inaudibly) chanted *bahsese* formulas. The powerful words of these formulas relate to the myths (*kihti*) and are carefully chosen according to the taxonomic issues at stake. For example, when people need to move through their territory to carry out subsistence activities, special attention must be given to spatiality – every micro-habitat is associated with certain illnesses – as well as to temporality – the time of the year and the appearance of certain constellations. The *kumuã* are said to be great “sweeteners” of territories to secure human health in forests and rivers. As senders of sicknesses and resources, it is necessary to communicate directly with the *waimahsã* of specific territories. The *kumuã* activate these negotiations with *bahsese* of protection. Via the words of the formulas, the Fish-People are offered flavours of coca, tobacco, and sweet drinks so that they cease to be angry and sit down on their ceremonial benches. The *kumuã* create a pleasant multisensory ritual séance for the *waimahsã* to distract them from the human “stench” in their realms. The *bahsese* of protection creates a cordial discourse with the Other-Humans to prepare a salubrious environment for humans to act in. Aggressive behaviour would expel the Fish-People from their realms, resulting in environmental degradation through deforestation.

Practice of preventive healing

Ever since the voyage of the Canoe of Transformation had established temporal, spatial, and social order, and enlivened the world with dynamic transformative forces, today’s specialists do not stop to wrestle with the other-human *waimahsã* over the “techniques” to uphold and give continuity to the cosmic construction. What follows is a scenario of different “applications” necessary to

activate healing forces of purification and protection in what often are conflictual, yet healing battles with the other-humans threatening the physical and psychic integrity of humans. These measures focus on the human body, the central configuration in Northwest-Amazonian cosmology. Thus, shamanistic interventions or applications principally focus on precarious moments of the human life cycle. These interventions follow the logic of an inherent health threat during processes of transformation. The following examples of Northwest-Amazonian preventive healing show how the chanting of *bahsese* formulas “activates” the transformation of potentially pathogenic principles (bitter, ardent, etc.) into healing principles (sweet, cool, etc.).

Body-centred healing

During pregnancy, the ritual specialist of the Upper Rio Negro people prepares the woman’s uterus. To his understanding, the uterus is the first “territory” that must be prepared to generate human life and to sustain the child’s growth. He enlarges the woman’s uterus so that the child grows healthy. The woman’s uterus is associated with the *abiu* fruit. Her body is “sweetened” to nourish the new life. On the day a woman is about to give birth, the specialist prepares and protects the birthing place by inhaling tobacco smoke. In ancient times, the birthing place was on the path to the gardens. This place is surrounded by the Tree-People (*waimahsã* of the forest realm) and is full of worms, caterpillars, lizards, ants, and other insects. These stinging beasts can harm a child’s well-being. In the form of pain, they can attack the body of the newborn’s mother. After birth, it is the specialist’s task to soothe the fire [the pain] with *bahsese*. During this time, parents are confined in a restricted area and cannot do anything without requesting a *bahsese* of protection from the specialist. All their activities must be accompanied by *bahsese*, since all parents’ activities are related to the newborn child’s health. For post-partum women, fire is an aggressor. When the mother prepares food or warms her child over the fire, the specialist takes a piece of wood from the fire and holds it to the child’s mouth to cool it. The cooling of the fire transforms it into the fire of milk and sweet *buiuiu* [fruit] foam, the healthy fire. In addition, all the food has to be treated by the specialists to ward off the revenge of the masters, the Fish-People (*waimahsã*), from whose realms the food has been taken. This essential preventive practice is performed before a child begins to eat “solid” foods. Food is contaminated and can cause a series of diseases, especially for children. Therefore, it is necessary to clean the food using *bahsese* formulas. According to a myth (*kihti*), fish are feared by the *pamurimahsã* (Transformation People) because they are potential carriers of social conflict and disease. To serve them as food, the *kumuã* neutralise the fish’s harmful potential.

Healing of terrains

The following two examples show how tasks like building a house or fishing with poison require the same practices of sweetening via *bahsese* to ward off sickness sent by the guardians of specific terrains. When clearing the site where a house will be built, the specialist has to “sweeten” the terrain to ward off the Fish-People owners’ revenge. The owner of the house first fells the trees to clear the area. The specialist asks the Other-Human land/forest owners for permission. He takes some of the earth and holds it to the “door of the mouth”, from where shamanic actions issue, transforming the earth into a “land of the milk of the *buiuiu*” (a sweet fruit). Now, the site of the house will be healthy to live in, and the residents of this house will not experience conflicts among family members. Failure to soften the ground at the site of the house or to negotiate with the land-owners will lead to fights. Specialists claim that if they do not chant *bahsese*, the land will become wild or aggressive, which will cause serious problems for humans, the owners of the garden, and the owners of the house. Fishing with poison is carried out during the summer and requires extra attention and care. Before the dispersal of the poisonous sap, *bahsese* is performed to protect the participants from possible retaliation by the *waimahsã*, the owners and masters of the fish, who consider the activity as predation. Another essential precaution is the sweetening-*bahsese*, performed once each family has collected the required amount of fish. This sweetening practice via *bahsese* neutralises the poison in the water, making it sweet for the fish and preventing further deaths. This practice protects fish stocks and ensures the continuity of aquatic life. After two or three days, the water is purified by *bahsese*, restoring the river or lake as a healthy space for fish repopulation and reproduction.

Betise: The “rules of life”

Upper Rio Negro healing techniques rest on three pillars: the chanting of *bahsese* formulas, the application of plant medicine² and the adherence to rules. While the chanted *bahsese* formulas themselves are inaudible for the bystanders, the *kumuã* derive sets of rules (*betise*) from their cosmic analysis and impose them on individuals and social groups at critical moments in life. *Betise* rules are one preventive measure among a set to ensure the quality of life of the Indigenous peoples of the Northwestern Amazon. It is a fundamental practice for securing well-being in both health and personal integrity. Its purpose is to give balance and protection during moments considered delicate or transformative, when a person is most vulnerable to disease. *Betise* is the set of prescriptions and practices of abstinence that must be observed during specific periods of the life cycle, important for the formation of the *Yepamahsã* (Tukano) person, also during certain activities of the daily round. Literally translated, *betise* means “not to eat”, but the term could be better translated as “set of abstinences and restrictions”. (Núcleo de Estudos da Amazônia Indígena, 2018, p. 103). *Betise* is much more

than a simple set of dietary or behavioural restrictions. It ensures a person's balance in all dimensions: health, mental balance, emotional balance, affective balance, protection, and quality of life – in situations such as a girl's first menstruation, the birth of a child, the training of new specialists (shamans), the making of hunting tools and fishing traps, the period of illness and post-illness, post-partum, snake bites, before and after the consumption of *kahpi* (ayahuasca), among other situations.

Betise is probably the most directly body-centred measure in the compound of Northwest-Amazonian preventive healing. A good example is how the precarious and dangerous transformative episode of a girl's menarche is conducted by the *kumu* and, in a more physical way, by her mother:

The moment of menarche (*amonumiō*) is characterised by the young girl's seclusion as well as spatial and social isolation. This period is marked by dietary restrictions – she eats only tapioca, manioc flour, and drinks manioc foam. The young girl's body is more vulnerable because it is undergoing transformation (...). During the isolation period, she receives instructions from her mother or grandmother about adult life as a woman: behavioural etiquette during the *poose* [big rituals] and meetings with affinal relatives, how to behave with visitors in the absence of her parents. The seclusion period is also marked by care for the body via facial and body painting. (...) and learning about cosmology linked to the feminine universe. After the seclusion period, the moment arrives for the first bath in the river. The *kumu* performs the *bahsese* with macerated *ohpe* (pitch), which is then heated over a fire. Then, her mother carries the gourd with the pitch, followed by the girl, towards the river, in order to protect her from attacks by the *waimahsā* on the way to the port. The mother pours the ashes of the pitch into the river before the girl enters the water. The mother prepares a natural soap made from *papuaku* (a fragrant shrub found on the banks of the streams), which also undergoes *bahsese*. Some *kumuā* take a bath with *papuaku* after the girl to also protect themselves – a fundamental step for all *bahsese* actions. After being cleansed, the girl receives her first meal (...) seasoned with peppers, which have the property of neutralising dangers and help keep the skin shiny and beautiful. From then on, the *amonumiō* is ready for adult life. During the woman's next menstrual period, dietary precautions should be observed again, and after marriage, she should not touch her husband's work tools (farming, fishing, and hunting) to avoid causing accidents. She also cannot interact with or touch the hunting dog so as not to interfere with the hunt (Núcleo de Estudos da Amazônia Indígena, 2018, p. 105).

Betise, following the “rules of life” (Rasmussen in Sahlins, 2022, p. 138), is equally obligatory during activities of subsistence, as co-author S. Barreto explains in our working sessions in 2025:

For example, *a'té da'rase* is a technology of work based on *betise*, including diets and restrictions to ensure the abundance and quality of hunting, fishing, and gardening. If someone does not follow the prescriptions and restrictions, he or she will fall ill, hurt themselves, or be attacked by Other-Humans. You have to obey strictly for your own social and environmental health and that of others. Also, in order to avoid quarrels, they [the specialists] began to develop the *bahsese*. This was exactly when the expulsion of malicious thinking (*wetî da'rese*) began, which today we know as the protection of the body and of being a person (*ehêri pô'ra*). This is a case of preventive culture (*cultura preventiva*). Every type of *bahsese* requires to follow and fulfil the prescriptions and restrictions for your health.

In these situations, *betise* not only protects physical integrity but also ensures the person's overall health. Failure to comply with the rules can lead to physical and mental imbalance, illness, or even death. It is important to note that the *betise* rules are not just a method of disciplining people, but aim at constructing a benign sociality for the benefit of the whole community. At a closer look, both *bahsese* formulas and *betise* rules create protection; however, by doing so, they rather “soothe” or “tame” the other-human adversaries, the Fish-People. Northwest-Amazonian preventive healing strives for a habitus of balanced reciprocal relations with the adversaries from other cosmic dimensions.

Conclusion

We have argued that, at the most abstract level of Northwest-Amazonian cosmology, preventive healing is a reiteration of the transformative dynamics brought along and distributed by the epic journey of the ancestors in their Canoe of Transformation. Since creation time also introduced ambivalence, conflict, sickness, and death into the world, Northwestern Amazonian cosmopolitics require ongoing interventions by ritual specialists to protect humans from physical and psychological harm. This is done through the cosmological diplomacy of shamanic specialists with other-human beings (the Fish-People) who inhabit all levels of the cosmic arrangement. Healing techniques activate forces that originate from processes unfolding in primordial time and are tapped by today's specialists. Upper Rio Negro cosmogony culminates in a voyage of proto-human beings that not only establishes spatial, temporal, and social order but also sets in motion the inherent tensions that must be continually resolved to sustain the flow of life. The temporality of healing activities runs parallel to all dynamic processes of life and is not limited to post-factum interventions. Preventive healing techniques focus on the human body as a configuration that can be scaled up to macrocosmic levels of planetary dimensions.

Finally, the question of the effects of “radical transformative scholarship” (Hosseini & Gills, 2020, p. 15) has been raised in the introduction to this special issue. In light of the escalating environmental crisis and the insufficient efforts

to address it, this is not only an ecological challenge but equally a psychological one, reflected in the growing prevalence of mental health issues and declining well-being among people of the Global North (Kurth & Pihkala, 2022; Ogunbode et al., 2022). Thus, the hope for Indigenous scholarship as a powerful way to mitigate the spreading syndrome known as “eco-anxiety” (Ojala et al., 2021) must not be a mere romantic projection, although it is difficult to find the interfaces between Indigenous cosmologies and despondent Western ecologism. It may come as a surprise that “fear” or “anxiety” may be the touching points between the different cosmologies: According to co-author João Paulo L. Barreto the peoples of the Upper Rio Negro have their specific way of dealing with the (other-human) environment, “not because nature is so beautiful, but because we are afraid to die” (L. Barreto, 2025, p. 170). However, supported by a multi-scale system of preventive healing, peoples from the Upper Rio Negro are not angst-ridden, but dispose of robust means to cope with the traumatic impacts of (neo)coloniality, from which they are no more spared than other Indigenous groups of Amazonia. As explained in the origin myths, the transformative power of Northwest-Amazonian preventive healing is anchored in the sentient landscape of the Upper Rio Negro but not restricted to it.

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Notes

- 1 Northwestern Amazonia or the Upper Rio Negro of Brazil (and adjacent territories Colombia and Venezuela) is home to more than 30 ethnic groups belonging to different language families (Eastern Tukano, Aruak and the languages of the so-called “Maku”). Despite clearly marked social, economic, and environmental differences among the ethnic groups, they share basic features of their cosmology. The Indigenous co-authors belong to the Tukano (proper), Desana and Bará ethnic groups of Northwestern Amazonia (see Instituto Socioambiental, https://pib.socioambiental.org/en/Povo:Etnias_do_Rio_Negro; accessed 13.06.2026).
- 2 The issue of plant medicine cannot be dealt with here. However, it is important to note that it is again the *kumu* who activates the healing principle within a plant by chanting *bahsese*.

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