

The Cosmopoetics of Plants: A Dialogue Between Shipibo-Konibo Botanical Knowledge, Ecology, and Science¹

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We, the authors of this article, have been married for almost fifteen years. We belong to a Shipibo-Konibo family that has practiced ancestral medicine for many generations. Through our artistic and academic work, we have undertaken a research journey among the elders of our family. Our goal has been to reconnect with the knowledge of our grandparents and to learn how to feel the life of our territory with the heart. From the beginning, our research methodologies have been grounded in Indigenous epistemologies, ontologies, and rationalities. We have approached the elders with deep respect, without haste, and in a state of full attention, so that they may share their teachings little by little.

As man and woman, we have learned to respect and complement each other, following ancient teachings, so that we may present an updated version of our ancestors' thought. Through both philosophy and art, we strive to foster a dialogue between ancestral knowledge and modernity—one that can reveal the power Indigenous reflections hold to offer the global civilization possible pathways out of its intellectual, spiritual, moral, and ecological crisis. In the midst of the antinomies of modernity (such as the exaltation of progress alongside the devastation of territories, the cult of individual freedom alongside systemic inequality, or the celebration of reason alongside the proliferation of destructive technologies), we strive to embody the wisdom of our ancestors in each breath and in the way we inhabit Mother Earth. In the native community of Santa Clara de Yarinacocha (Ucayali, Peru), together with our relatives, we run a family cooperative dedicated to artistic creation, an ancestral medicine clinic, a center for Indigenous studies and research, a reforestation and food sovereignty project, as well as the care of an ethnobotanical garden.

Modern ecological science affirms that living organisms must be studied in relation to the totality of existence. What distinguishes ecology from other biological

¹ Text by Pedro Martin Favaron Peyon and Chonon Bensho. Art by Chonon Bensho.

disciplines—typically focused on individual organisms or smaller scales of analysis—is its central principle of interconnection: all living beings form part of a complex web of relationships. However, the idea that everything is interconnected is far from being new. It has been present since immemorial times in diverse societies, and may even represent a fundamental intuition of the human condition—an archetypal image born from our ancestral imagination.

According to Indigenous scholar Dan Longboat and Sheridan (2006), what is often called ‘animism’—the view that all living beings are conscious—actually proposes a relational worldview that predates modern ecological thought. From this perspective, ecology’s merit lies in its ability to recover and formalize this ancestral and nearly universal conception within the framework of modern science. Through empirical observation and systematic modeling, ecology legitimizes these insights in ways that institutions of political power recognize as valid. Yet, one may go further still and reimagine ecology not only as a scientific field, but also as a bridge between ancient wisdoms and our contemporary need to understand and care for the intricate web of life.

The forces of economical and technological globalization accelerate time and collapse spatial distances. The pace of cybernetics, technical productivity, and efficiency disrupts our alignment with cosmic rhythms. The human being, deprived of stillness and caught in the vertigo of crowded schedules and constant demands, becomes unable to feel the affective life of the Earth or to attune to the cosmic animating flow. The dominance of financial elites over the wellbeing of the living world has depended, to a large extent, on a naturalistic ontological paradigm. Only when territory is conceived as lacking soul, consciousness, and sensitivity can human beings imagine themselves entitled to seize and destroy vast ecosystems, motivated purely by profit and insatiable desire. This unrestrained exploitation of the planet parallels the imposition of technical and financial elites upon the rest of humanity. Modern imperialism entails both ecological devastation and the subjugation of Indigenous societies. The term ‘animism’ still carries the epistemic bias of hegemonic modernity. It presumes that Indigenous peoples project life and agency onto so-called ‘inanimate’ entities. As native scholar Gregory Cajete (2000) argues, this view usually stems from a superficial and ethnocentric misunderstanding of Indigenous ways of knowing the life of the land. It remains rooted in a representational logic, where human subjects are believed to attribute soul to other beings, rather than recognizing that they already participate in networks of language, consciousness, and agency.

Beyond the mischaracterization implied by the term ‘animism,’ Indigenous knowledge is grounded in a vision of relational balance, where all beings participate in a dynamic web of reciprocity that is also expressed through symbolic forms such as the *koros kene* design. We designed the *koros kene* below (Figure 1) to symbolize the complementarity of left and right, of above and below, and of the spiritual world with our own. The *koros kene* design does not merely embellish cloth; the act of embroidering it is itself a meditative practice through which the artist synchronizes with ancestral rhythms of balance. The geometry embodies the teaching of

complementarity—left and right, above and below—as an ethical principle that sustains life and is enacted in the very process of stitching. As with other designs, the *koros kene* carries the ancient teaching that calls us to complement one another: our two eyes complement each other, our two hands complement each other, man and woman complement each other. Complementarity and balance are always an aspiration; this does not mean fixing things into an artificial stability, but rather following an ethical impulse that invites us to respond to life’s challenges and constant transformations guided by the ancestral principle of complementarity, which gives meaning to our steps and our thoughts. While asymmetries may be tolerated for a time, they should not persist; if one side imposes itself abusively over the other, the relationship produces unease and disharmony. Our ancestors taught us that to live well (*jakonash jati*), we must live in complementarity with all living beings. The human being is part of the sacred circle of life.

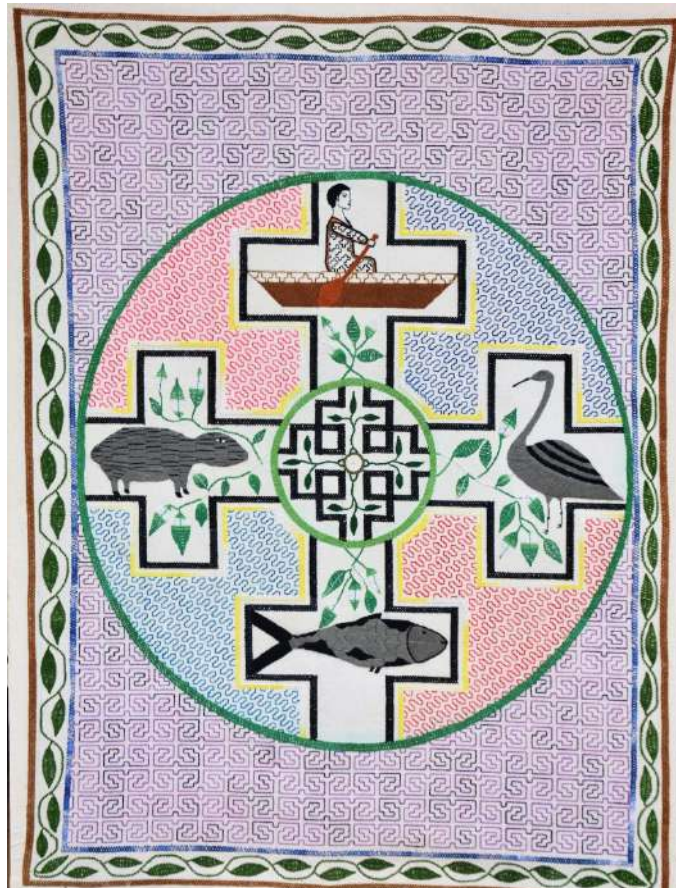


Figure 1: *Koros Kene*, colored threads embroidered on *tocuyo* (150 ctms x 120 ctms), 2020.

From our Indigenous perspective, it is not that we are ‘animists,’ but rather that hegemonic modernity—through the dulling of its sensitivity and the impoverishment of its perceptual capacities—has lost the ability to feel the agency and affect inherent to the cosmos. For this reason, we propose replacing the term ‘animism’ with the notion of Amerindian *cosmopoetics*: a way of dwelling, feeling, and knowing that arises from an immersive experience within the relational web of life.

By *cosmopoetics* we mean the poetic, symbolic, and experiential articulation of the living cosmos, in which every being participates in networks of reciprocity, language, and agency. Unlike the representational logic that assumes humans merely ‘attribute’ life to inert matter, a cosmopoetic vision recognizes the world as already alive, expressive, and communicative. It names not a projection of subjectivity onto the nonhuman, but a shared mode of existence in which perception, imagination, and affect are inseparable from the ethical responsibility of living in balance with the community of beings.

Cosmopoetic reflection arises from specific modes of inhabiting territory and from states of consciousness in which humans participate in the ongoing creativity of the cosmos. Through song, dance, storytelling, art, and ritual, humans celebrate their place in the sacred web of life. The notion of Amerindian cosmopoetics offers a conceptual alternative to the concept of animism because it affirms that humans dwell within a living cosmos, immersed affectively, sensorially, and relationally. To assert that the cosmos is alive and conscious—though in ways we may never fully understand—is not a primitive remnant, but rather a fundamental intuition pointing to a relational ontology.

Cosmopoetics can also be expressed through embroidery. Our *maya kene* design (Figure 2), a circular pattern, embodies a symbolic geometry inspired by lakes, the winding meanders of Amazonian rivers, and mountain streams. Its circular form represents not only territory and memory but also the slow, attentive practice of embroidery as a cosmopoetic exercise, aligning breath, hand, and thought with the rhythms of rivers and celestial cycles. In this process, the embroiderer interweaves land, memory, and self, tracing the sacred bond between community and cosmos. Through *maya kene*, we bring our ancestral territory to life—inseparable from our memories, our thoughts, our love, and our heartbeat. Ultimately, we are embroidering ourselves: our soul, our sensitivity, and the intimate dialogue that our heart maintains with both community and land. The territory lives within us, and *maya kene* expresses this affective bond, a sacred circle embracing humans and all other living beings.



Figure 2: *Maya Kene*, colored threads embroidered on *tocuyo* (150 cmts x 120 cmts), 2020.

In this context, the term cosmos refers to an ordered, living whole animated by an intelligent breath that enlivens both stars and cells. It is not a neutral or mechanical universe, but a dense web of relationships among multiple forms of existence—physical and spiritual—each element with its own agency, language, and way of life. The cosmic dimension of this perspective reminds us that while the Earth is our mother and our shared home, she is also a spinning sphere embedded within a solar system and a moving galaxy. The Amerindian commitment to land is not a parochial chauvinism, but a planetary consciousness. Indigenous wisdom knows that we participate in something far greater, which includes the Sun, the stars, and the comets. Thus, cosmopoetics sinks its roots into specific land (in our case, the Amazon basin), but also drinks from rain, sunlight, moonlight, and the atmosphere. In this way, the rooted movement toward the fertile depths of the local is not opposed to the upward opening toward universal light; they are complementary movements.

The upper part of the embroidered diptych *Jenen Ewa* (Figure 3) shows how the ancient sages of the Shipibo nation, as told in our ancestral stories, possessed the spiritual and physical strength to rise up to the Sun, the Moon, and the Stars. They also knew how to converse with eagles so they could be lifted in their flight, or how to wear the tunic of the hummingbirds. These stories teach us that, in order to reach our full potential, human beings must learn to converse with all living beings, to learn

from them, and to receive their knowledge. To do so, we must learn to be humble and to recover the cosmic semiotics that connect us to the universe. To render eagles and the ancestral sages is to invite their presence into the canvas, enacting an ontological linking between human creation and cosmic vitality.



Figure 3: *Jenen Ewa* (upper part), colored threads embroidered on *tocuayo* (120 ctms x 170 ctms), 2024.

Our philosophical and artistic proposal is inseparable from poetics, because purely technical or conceptual language falls short in conveying the affective bond between being and territory. Therefore, it is essential to weave philosophy and poetics together when reflecting on the relationship between humans and other living beings. One cannot dwell on Mother Earth with true relational awareness unless one also speaks a language that resonates with cosmic life.

To express human belonging in the fabric of life requires embracing affectivity and the sacred as integral to reason. Only the contemplative gaze of poetry can perceive spirit in a stone, in a tree, in a mountain, in the sand, in the Sun, or in the pupil of another being. Through affective cognition, we come to understand that we are all relatives, our destinies entangled.

In this sense, poetry is better suited to welcome with respect, empathy, and true hospitality the ecological contributions of Amerindian wisdom. It stands against the grain of the technical language of positivism. It is no longer acceptable for hegemonic modernity to persist in its arrogance, labeling Indigenous nations as societies trapped in a supposed ‘night of times,’ plagued by superstition and devoid of value. We propose, therefore, to recognize the poetic as a condition of possibility for an ecology of the spirit, an ethics of reciprocity, and a relational ontology.

Cosmopoetic reflection draws from Indigenous knowledge systems, but it is not an ethnographic description. It is a philosophical meditation rooted in our belonging to Shipibo-Konibo, that has been practiced as ancestral medicine for generations. It is also a call to give new life to our ancestors’ teachings in dialogue

with modern science and philosophy. Cosmopoetics regards ancestral knowledge as living forms of thought from which it is possible to articulate a rigorous, sensitive, and profoundly relational understanding of the world. It is a philosophical proposal that does not separate reason from emotion, thought from life, or concept from poetic image. Instead, it weaves them together so that knowledge emerges from relationship, reciprocity, and wonder before existence.

Plants are the beings most deeply rooted in Mother Earth. Therefore, to relate to them is to understand what it means to 'be-in-the-world.' The way plants inhabit territories is inherently cosmogonic. Plants are not only rooted in the soil; they also feed on sunlight, rain, and the atmosphere. If we deepen our relationship with plant wisdom, we may realize that thinking about Earth necessarily implies thinking about our celestial connections as well. The artwork *Non Axebo* (Figure 4) shows how the ancestors learned to dialogue with the trees in order to receive their healing knowledge. The medicinal strength of our wise healers comes from the roots and the earth, but also from the atmosphere, from the light of the Moon and the Sun, and from the cosmos as a whole. *Axe Ati* embodies the teaching that trees are healers and teachers. The careful embroidery of vegetal forms is a way of listening with the hands, receiving the rhythm of the forest through thread and color. Artistic cosmopoetic creation is not representation but participation in the communicative wisdom of plants.

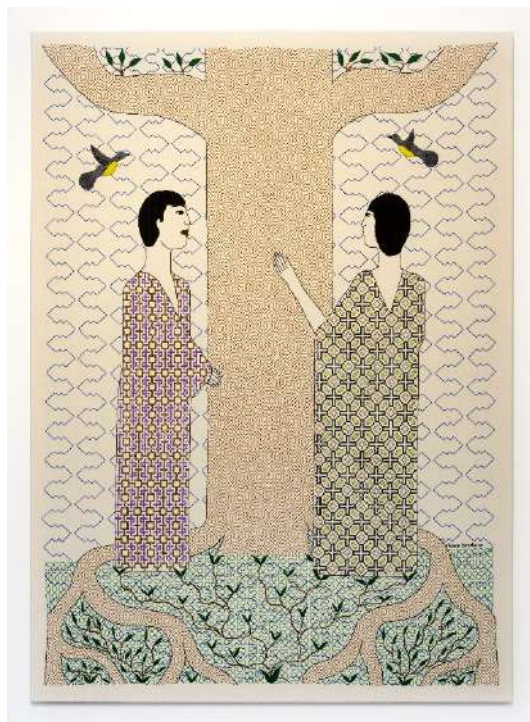


Figure 4: *Axe Ati*, colored threads embroidered on *tocuyo* (175 cms x 100 cms), 2024.

This is something the ancient Shipibo sages understood profoundly. During their initiation processes (called *sama* in our language), they would ingest tree bark or bathe in plant infusions, allowing vegetal wisdom to permeate their bodies, infuse their blood, and illuminate their thoughts. All of their knowledge and healing power

came from this immersion in plant life. They taught that plant wisdom springs not only from the breath that fertilizes the Earth but also from the Sun, the Moon, and the Stars. They affirmed that plants possess intelligence, form communities, and participate in linguistic networks. In dreams and visions, they saw that plants were governed by spiritual guardians (*rao ibo*) with whom one could communicate and form kinship bonds. Therefore, plants not only connected the sages to the entire sensible cosmos, but also gave them access to suprasensible realms. The plant medicine world is not a passive backdrop—it is an intelligent, affective, and communicative presence through which the entire cosmos can be known and inhabited.



Figure 5: *Koshi Joni* (detail), colored threads embroidered on *tocuyo*, 2023.

Is it possible to find a connection between this ancestral knowledge and contemporary science? The Canadian scientist Suzanne Simard, in her memoir *Finding the Mother Tree* (2021), argues that trees are not isolated organisms but members of highly interconnected, cooperative, and intelligent communities. According to Simard, plants communicate through a subterranean network of mycorrhizal fungi. These fungi form symbiotic relationships with tree roots, enabling the exchange of nutrients, water, and chemical signals.

Simard introduces the concept of the mother tree (the oldest and largest in a forest) as a nurturing, interconnected presence. These mother trees are deeply connected to others and are even capable of recognizing trees that have grown from their own seeds. Through these connections, they nourish younger trees, warn them of dangers (like pests or drought), and strategically distribute resources. Simard also claims that trees exhibit behaviors we might describe as ecological intelligence: they learn from their environment, adapt, and change their responses based on past experiences.

That mother trees recognize and support their descendants seems to reflect the kin-based community values of Indigenous cultures. These relationships may be

interpreted as a form of ecological empathy or care. Although Simard communicates scientific findings, her claims echo deeply held knowledge of Amerindian sages: that trees are conscious beings participating in cosmic semiotics (Favaron 2025). That is why, in our art (Figure 6) and in our philosophical thought, we often draw inspiration from the respectful dialogues our grandparents taught us to establish with the trees. *Merayanin Incanto* reflects the conversations our grandparents taught us to sustain with trees and rocks.



Figure 6: *Merayanin Incanto*, colored threads embroidered on *tocuyo* (175 ctms x 100 ctms), 2025.

Simard is not alone in suggesting a convergence between botanical science and Indigenous knowledge, which, until recently, seemed unimaginable under the monopoly of the mechanistic paradigm. Stefano Mancuso (2021), a pioneer in plant neurobiology, argues that while plants lack brains or nervous systems, they possess their own modes of communication and sensitivity. Mancuso explains that plants actively communicate through several channels: chemical signals from roots and leaves, volatile compounds warning of pest attacks, and underground networks of fungi. This sensitivity allows them to interact with their surroundings—not merely reacting passively, but solving problems, such as locating water or light. Plants make decentralized decisions and adapt their behavior flexibly and efficiently. Mancuso describes this as “distributed intelligence” (2021), akin to a neural network or swarm.

Although he avoids anthropomorphism, Mancuso suggests that plants exhibit forms of ecological affectivity: forming cooperative relationships, supporting species

survival, recognizing kin, and adjusting growth accordingly. Mancuso even proposes the possibility of collective plant intelligence, especially within cooperative ecosystems, where the behavior of one plant influences the entire system. This notion resonates with Indigenous teachings that plant species are governed by guardian spirits who manifest more completely than any individual plant the intelligence and semiotic potential of their kind (Favaron 2025).

We are not surprised by these scientific affirmations. For those of us who live in the digital age but have not forgotten the teachings of Indigenous sages, it is evident that tree branches act like antennas, sensing the conscious life of the atmosphere. Likewise, the roots of forests form neural networks that communicate and hold knowledge from Earth's deepest geological eras.

The possibility of dialogue with modern science does not imply a convergence free of tension. While fields like quantum physics, systems biology, chaos theory, and ecology have begun to destabilize traditional mechanistic assumptions, these newer approaches have yet to provoke a broad transformation within the institutional structures of scientific knowledge. Strongholds of positivist resistance persist within academia. Many scholars continue to assert that only knowledge expressed in technical terms and validated through empirical experimentation is legitimate. For such perspectives, Indigenous cosmopoetics remains a manifestation of primitive cognitive stages—something to be surpassed. Most scientific disciplines continue to struggle with moving beyond the mechanistic paradigm and with embracing the ontological implications of scientific discoveries that challenge the Cartesian model.

Worse still, the vast majority of technological advances that shape the modes of production—and even consciousness—of cybernetic civilization have been conceived within the mechanistic worldview, which sees the cosmos as devoid of volition and intelligence. Unsurprisingly, this produces a society that diminishes our emotional life, weakens language, and erodes our ability to engage in dialogue. The hypnotic influence of screens fosters the loss of affective bonds, not only between human beings, but also between humans and the cosmos.

This reinforces an instrumental vision that sustains a logic of domination over the broader web of life. While these dissonances do not amount to an insurmountable contradiction, they do reveal that any dialogue between science and Indigenous sages cannot occur symmetrically as long as one party is delegitimized for not conforming to hegemonic standards of knowledge. Despite these frictions, the epistemological vision of cosmopoetics—understood as a form of knowing rooted in immersion, affective rationality, and empathy toward shared life—has the power to transform dominant cognitive premises. It can nourish the paradigm shift that we so urgently need in order to escape the harmful consequences of mechanistic reductionism.

The cordial episteme of cosmopoetics does not reject reason; rather, it expands it into a more comprehensive and humane whole, recognizing that intelligence cannot be reduced to mere calculation. In doing so, it challenges the reductive frameworks that have prevailed since Cartesian modernity, and instead celebrates the dignity and richness of human intelligence, which also includes its

affective, imaginative, intuitive, and empathetic dimensions. This vision is particularly valuable for ecology, since this scientific field deals with living, complex, interdependent, and sensitive systems. Cosmopoetic perception allows us to see the existential community as composed of living subjects with whom we share a common fate and a profound responsibility.

The separation of reason from affectivity has not only limited our understanding of intelligence, but it has also caused devastating consequences for our relationship with the living world. It has fostered a worldview in which the cosmos is reduced to a set of soulless objects, ready to be extracted, used, and discarded. Therefore, we are not facing an abstract philosophical problem, but rather a need to critically address a mode of thought that has shaped how modern societies perceive human beings, knowledge, and the living cosmos. Recovering the cordial episteme seeks to reintegrate reason into a fuller and more nuanced vision of intelligence. By *cordial*, we mean an epistemic orientation grounded in the heart (from *cor*, *cordis*), one that joins affectivity, sensitivity, and ethical responsiveness to rational thought. Rather than opposing emotion and reason, the cordial episteme recognizes their inseparability within a broader ecology of knowing, in which thinking is at once intellectual, affective, and relational. In the work *Ani Isa Ibo* (Figure 7), we seek to convey the teaching of our ancestors, for whom the human being could only reach their fullest potential by recognizing themselves as part of the circular flow of existence and vital energy. This attunement to the rhythms of life emerges through the meditative state cultivated in embroidery: the attentive, embodied practice aligns breath, hand, and thought, transforming each stitch into a reflection of the self in relation to land, memory, and cosmos. The artwork itself becomes a testimony to the cordial episteme: reason woven with feeling, geometry infused with heartbeat.



Figure 7: *Ani Isa Ibo*, colored threads embroidered on *tocuyo* (160 cm x 110 cm), 2022.

These reflections do not suggest that modern science should abandon its methodologies or adopt only the epistemological proposals of cosmopoetics. It would be misguided to dismiss the achievements of empirical verification in specific domains. However, it is equally unacceptable to claim that all vital experience can or should be explained using those reductive methods and technical formulations. Scientific methods are designed to study observable, measurable, and replicable phenomena. Yet, life encompasses experiences that are not reducible to quantitative data—such as love, art, spirituality, or subjective consciousness. Attempting to explain these dimensions purely through technical parameters impoverishes their meaning, often to an intolerable degree. As a tool of control and efficiency, technique tends to exclude the sacred, the imaginative, the emotional, and the relational.

Cosmopoetic reflection advocates for multiple modes of cognition, whereby existence is approached through an epistemic plurality that honors the sacred and the affective ties that weave together all life. What is required is the recognition of different ways of knowing—ways that can coexist in complementarity rather than being subordinated to the technical-scientific paradigm. From a cosmopoetic perspective, existence cannot be reduced to discrete entities or mechanical functions; it must be understood as a fabric of meaningful relationships.

True dialogue between knowledge systems does not ask interlocutors to abandon their specificity, but to engage with mutual respect. What obstructs this exchange is not the scientific method itself—which remains a valuable tool—but its ideological use as the only valid path to truth. Positivism, especially in its rigid forms,

creates a hierarchy of knowledge and prevents the enrichment that emerges from reciprocal learning. Science can engage fruitfully with Indigenous wisdom only if it abandons its claim to epistemic supremacy.

Cosmopoetics does not seek to replace science, but to complement it with other horizons of meaning. Without asking science to renounce its strengths, we can pursue a cosmopoetic expansion of its ontological and ethical foundations, recognizing that human beings are always embedded in the web of life. Forgetting this embodied interdependence has impoverished human sensitivity and justified ecological devastation.

The influence of cosmopoetics on science could inspire a new mode of knowledge and application—one that serves the common good, redefined to include the entire community of life. Knowledge must not function merely as an instrument of control; it must also be an act of reverence, listening, and care, harmonizing with the creative flow of the cosmos. This is not a call for nostalgia, but for a transformation in how we know, intervene, and coexist. By cultivating wonder, deep listening, and recognition of every being's intrinsic dignity, cosmopoetics fosters a knowledge that connects rather than separates. As our ancestors taught, medicinal plants are cared for by invisible beings (*jone jonibo*), reminding us of the responsibility to respect all living beings and to safeguard the flourishing of diversity.

Jone Jonibo (Figure 8) summons the invisible guardians of medicinal plants. The very act of painting these figures opens a space where the luminosity and beauty of the spirit world can be brought into matter. Artistic creation thus generates an ontological linkage: a visible reminder that respect and reciprocity with nonhuman beings is the condition for the flourishing of diversity.

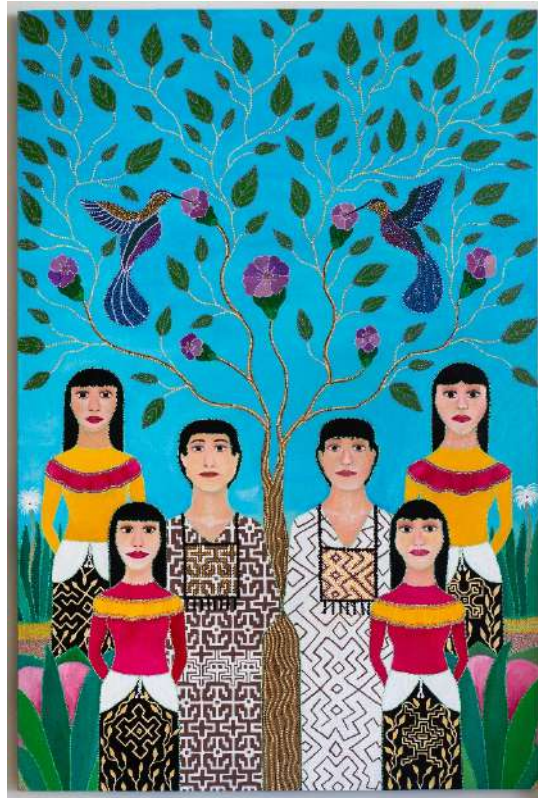


Figure 8: Jone Jonibo, oil on canvas (140 ctms x 110 ctms), 2022.

In a time marked by ecological crisis, civilizational collapse, and the intensification of extractivist and technocratic logics, it is urgent that we reconfigure our cognitive and ethical frameworks. A science sensitive to this reconfiguration will cease to be driven solely by efficiency. It will help regenerate the bonds between human beings and the more-than-human worlds. It will understand that knowledge is not just a tool—it is also an act of belonging, and a celebration of that belonging.

Thus, science and cosmopoetics can coexist: not as incompatible realms, but as complementary ways of inhabiting the Great Mystery.

Works Cited

- Cajete, Gregory. *Native Science: Natural Laws of Interdependence*. Clear Light Publishers, 2000.
- Favaron, Pedro. "Netebaon joi: la semiótica cósmica shipibo-konibo." *América sin Nombre*, no. 32, 2025, pp. 16–32.
- Longboat, Dan and Jose Sheridan. "The Haudenosaunee Imagination and the Ecology of the Sacred." *Space and Culture*, vol. 9, no. 4, 2006.
- Mancuso, Stefano. *El futuro es vegetal*. Galaxia Gutenberg, 2021, pp. 365–381.
- Simard, Suzanne. *Finding the Mother Tree: Discovering the Wisdom of the Forest*. Alfred A. Knopf, 2021.