



Illustrated Botanical Guide To The Gran Tescual Indigenous Reservation



Humanity is facing a global crisis that threatens the stability of ecosystems and biodiversity — and Colombia, one of the most megadiverse countries in the world, is no exception. With a wide variety of species and unique ecosystems, the country is particularly vulnerable to the impacts of climate change and biodiversity loss. This document addresses these interconnected challenges and highlights the relationship between climate change and biodiversity, emphasizing the urgent need for comprehensive strategies to protect Colombia's natural and cultural wealth.



The Illustrated Botanical Guide to the Gran Tescual Indigenous Reservation documents the plant diversity of the sacred territory of Atuczara, located in southwestern Colombia. It is part of the Climate Plan of the Gran Tescual Indigenous Territory. Developed by the Corporación CIASE in partnership with the Gran Tescual Indigenous Reservation of the Pasto People, the guide classifies native species based on their cultural and ecological value, highlighting ornamental, timber, medicinal-spiritual, food, and ecologically important plants. As an educational and conservation tool, this guide promotes ancestral knowledge and respect for local biodiversity, becoming a valuable resource for cultural strengthening and the protection of these unique ecosystems.



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Introduction

Humanity is facing a global civilizational crisis that threatens the harmony of ecosystems, health of the planet, and existence of multiple species, including humans. Interconnected problems such as pollution, biodiversity loss, ocean acidification, and climate change require an urgent and coordinated global response. In this context, the relationship between climate change and biodiversity is crucial: climate change results in the alteration or modification of natural environments and potentially in a drastic reduction of biological diversity. This loss in turn intensifies climate change by weakening the capacity of ecosystems to regulate climate and absorb carbon¹. In short, predicting ecosystemic alterations is complex, which is compounded by the disturbances and imbalances that these alterations entail; yet, there is no doubt that the structure, dynamics, and composition of ecosystems will undergo drastic changes compared to how we know them today. This underscores the importance of holistically addressing these challenges.


Colombia is recognized for its megadiversity and is home to approximately 10% of the world's biodiversity over less than 0.7% of the earth's surface.

This rich variety of species is the result of a strategic geographic location and exceptional ecosystemic diversity². However, this wealth faces significant threats due to the country's vulnerability to the aforementioned climate change, which exacerbates the loss of biodiversity and causes extreme weather events that challenge the survival of numerous species and conservation efforts.

In southwestern Colombia, in the department of Nariño, the Gran Tescual Indigenous Reservation is notable for its extraordinary cultural and biological diversity, as well as the preservation of the ancestral cultural practices of the Pastos Indigenous People. This territory, which includes ecosystems as diverse as páramos (high-altitude bogs), sub-Andean and Andean forests, and tropical rainforest, faces serious threats from various anthropogenic pressures such as: deforestation, the expansion of the agricultural frontier, cattle ranching, the introduction of exotic species, an oil pipeline that passes through the páramo ecosystem, and the extraction of lumber for charcoal production. With myriad pressures on the territory, sustainable management of the reservation is essential to protect both its natural wealth and cultural heritage.

1 United Nations. (2022). Biodiversity: our strongest natural defense against climate change. Retrieved from: <https://www.un.org/en/climatechange/science/climate-issues/biodiversity>

2 Periódico UNAL. (2024). Biodiversidad de Colombia: entre los imaginarios y las amenazas reales. Retrieved from: <https://periodico.unal.edu.co/articulos/biodiversidad-de-colombia-entre-los-imaginarios-y-las-amenazas-reales>



Recognizing the crucial importance of local biodiversity for life, this document is the result of initial research and documentation efforts. Thus, we present the Illustrated Botanical Guide of the Pan Amazon Gran Tescual Indigenous Reservation, which complements the reservation's Participatory Biodiversity Diagnosis, which was carried out in the context of the "Gran Tescual Indigenous Reservation Climate Plan" This guide is part of an initiative to research and recognize the territory and its elements, and was carried out by the Indigenous community, based on their ancestral knowledge in dialogue with other sources. The guide documents, describes, and highlights the diversity of plant species present in the extensive Atuczara territory.

This guide prioritizes the most important species identified by the Pasto Indigenous People of the Gran Tescual Reservation, classifying them by the following community uses: *A) ornamental, B) timber, C) medicinal-spiritual, D) edible, and E) ecologically important.*

Each plant includes its common name in the reservation/territory and scientific

name (with its respective authorship). A later section includes the common names used in other regions of Colombia and Latin America, as well as detailing associated uses, cultural value, geographic location, and the level of threat or vulnerability faced by a given plant. Priority is given to native species. Even though many food and medicinal plants are part of our culture and traditional knowledge, the species were nonetheless introduced. Likewise, species that are at risk are also highlighted.

The aim of this guide is twofold: it serves as an educational and conservation tool, helping to preserve traditional knowledge about local vegetation; it also promotes respect and appreciation of ancestral knowledge by documenting how these plants are an integral part of our community life and worldview.

Foreword³

Ir nam Pastuker, ackuasatar ac tupue, ackuasatar nam puram, ir nam un an tupue, tu tupue, chil tupue, ac muel, kumuel, actupue; mitmal, mites pastaran, kalpuedal, quilis mit mal pued puram, actupue pa qwastu pananquer, alpala es, chiles, pa qwastu embilquer, embilpud pa, percuar, pacuar, chapaqwastu Pastuquer chapuram.

Cha kumuel Juan Chiles pa qwastu, tac chal kumuel, past cha kal caguande, past ir chalapud, pas cha quechua, past nam fuel, pas nam acuda, pas nam che, past nam pingal. pa qwastu actupue, guan ampa, pag per. (Miguel Angel Quilismal)

We, the Pastos, love Mother Earth as our own life. Our ancestors, men and women from the world below, the middle, and above learned from her, walking the territory in minga (collective work), walking the spiral of life. Mother Earth teaches me, through her sacred sites, the cosmos, stars, lagoons with enchanted cities, volcanoes, lunisolar calendars, and the wisdom of the land, how to live life.

The wise Cacique Juan Chiles tells us maxims of wisdom, how to be guided by the path, how to read the thoughts of others, to untie the Quechua, to be like river water, like stone, like foam, to be like a rainbow. To talk about the earth is to have a beautiful sunrise every time (Miguel Angel Quilismal).

3 Presented in Quechua, the ancestral language spoken by the Pastos Indigenous people.



Introduction To The Gran Tescual Reservation

The Gran Tescual Indigenous Reservation, located in Atuczara (where the heart of water is found), includes the ancestral settlements of Chapal, Puerres, Canchala, Tescual, and Alpichaque. This territory is part of the great Pasto Knot or Waka Knot (Nudo de Los Pastos or Nudo de la Waka), extending from the Andean region to the eastern slopes of the Amazon. The territory is surrounded by ancestral sacred sites and natural borders.

This territory has a deep spiritual and cultural value for ancestral wisdom. According to the Law of Origin, the territory is a living being that feels, falls ill, is restored and, if polluted or destroyed, can die. It is a “Territory of Origin” that protects the cosmic forces and vital spirits of all life forms, in harmony with the rhythms of the Sun and Moon.

The Gran Tescual territory is conceived from a Pan-Amazonian perspective, with a diversity that ranges from the Pacific Coast and Amazon Piedmont to the Andean region, standing out as a fluvial star and an ancestral territory with rich water production.

Geographically, the reservation is in the municipality of Puerres, Nariño, in southwestern Colombia. The municipality, one of the 15 largest in the department, covers an area of 478 km², with an average altitude of 2,700 meters above sea level and an average temperature of 12°C. The Reservation is comprised of two large lots and 41 individual properties distributed among several rural communities within the townships of Monopamba, El Páramo, and San Mateo.

Illustration 1. Map of the Gran Tescual Indigenous Reservation ⁴



Source: Gran Tescual Indigenous Reservation.

⁴ The map shows a recovery zone that is in the colonial ancestral title 509 but was not adjudicated by the National Land Agency due to social and economic conflicts.



Climatological and geographical context

With an average altitude of 2,700 meters above sea level, Puerres encompasses both the Central-Eastern Mountain range on its western edge and the Amazon Piedmont to the east.

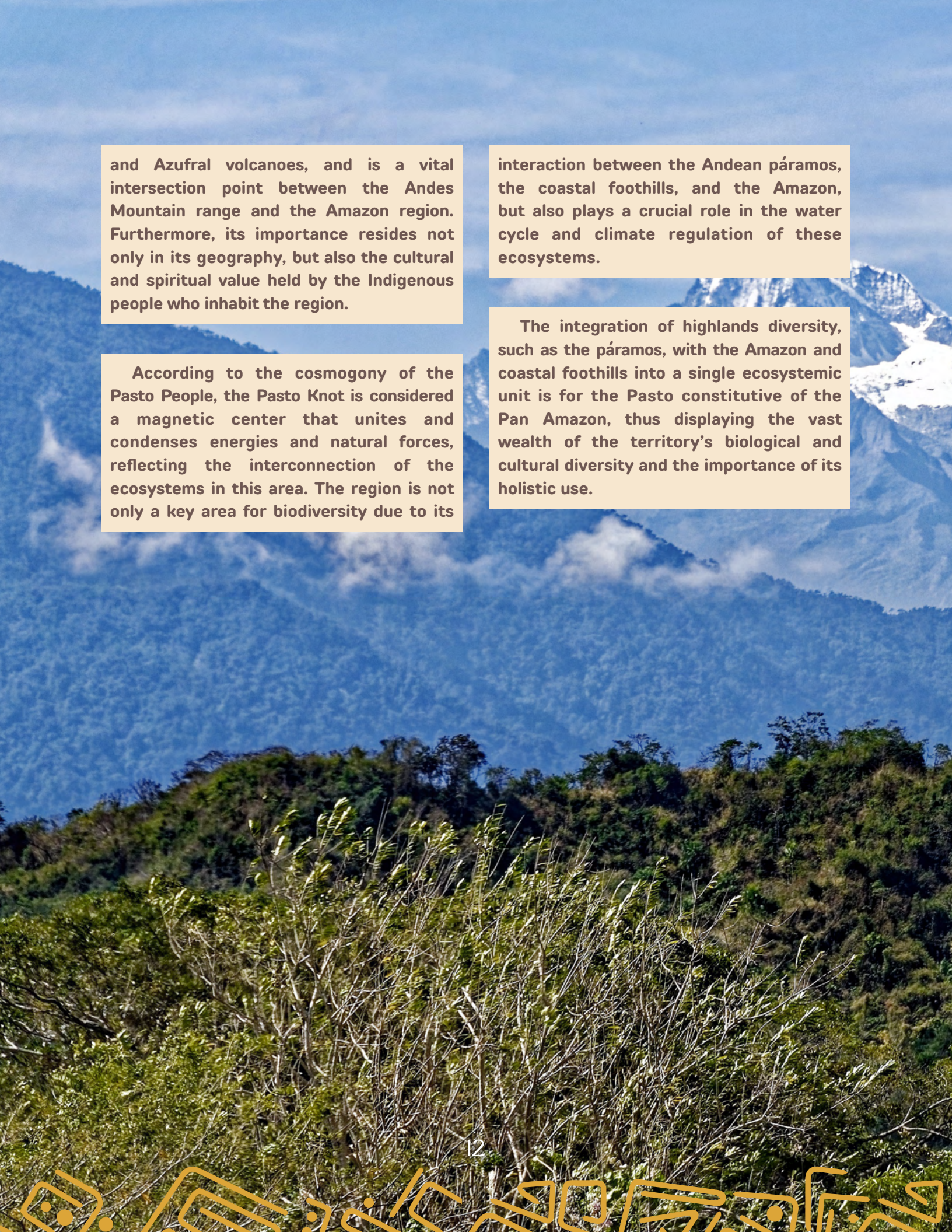
The municipality's topography creates a clear climatic distinction between the two slopes. On the western flank, influenced by the intra-Andean zone, there are valleys and canyons such as those of the Guáitara River, with relatively dry conditions. In contrast, the eastern flank is significantly influenced by the Amazon basin, with higher humidity due to the "flying rivers" Flying rivers are moisture-laden air currents that originate in the Amazon basin and move eastward, impacting the region's climate.

As the moist winds meet the mountains, additional precipitation is produced through a phenomenon known as orographic rainfall. Orographic rainfall occurs when trade winds from the southeast, which carry moisture, rise as they reach the mountains. This causes the air to cool and

release its moisture in the form of rain. The interaction between the currents and topography contributes to the fact that the eastern slope has increased precipitation, ranging from 50 and 80 mm per month.

The municipality covers part of the La Cocha - Patascoy páramo complex, a strategic ecosystem that acts as a biological corridor between the high mountains and the lowlands of the Amazon Piedmont. This corridor, which includes the Cerro Negro (Black Mountain) area, connects key conservation areas and is vital to the preservation of both biodiversity and the territory's ecological function.

The corridor is part of the Pasto Knot (Nudo de los Pastos), known as the Nudo de la Waka or Massif of Waka. This is an important mountain massif that extends from the province of Carchi in Ecuador to the Colombian departments of Nariño and Putumayo. The massif includes notable elevations such as the Cumbal, Chiles,



and Azufral volcanoes, and is a vital intersection point between the Andes Mountain range and the Amazon region. Furthermore, its importance resides not only in its geography, but also the cultural and spiritual value held by the Indigenous people who inhabit the region.

According to the cosmogony of the Pasto People, the Pasto Knot is considered a magnetic center that unites and condenses energies and natural forces, reflecting the interconnection of the ecosystems in this area. The region is not only a key area for biodiversity due to its

interaction between the Andean páramos, the coastal foothills, and the Amazon, but also plays a crucial role in the water cycle and climate regulation of these ecosystems.

The integration of highlands diversity, such as the páramos, with the Amazon and coastal foothills into a single ecosystemic unit is for the Pasto constitutive of the Pan Amazon, thus displaying the vast wealth of the territory's biological and cultural diversity and the importance of its holistic use.



Methodological clarifications

In the “Gran Tescual Indigenous Reservation Climate Plan” project, a participatory research initiative was carried out. This resulted in a participatory diagnosis focused on biodiversity and livelihoods, complemented by this illustrated botanical guide based on community and ancestral use. A holistic methodology that follows the ‘perceive, feel, think, dialogue, and validate’ model was employed, with the objective of fostering transformative resilience through practice and a collective validation of ideas.

The research was structured in several phases. In preparation, data collection instruments were designed to integrate local knowledge, samples were recorded in the iNaturalist application, and secondary bibliographic sources were reviewed. During field data collection, community guided tours were conducted, prioritizing species based on biological and spiritual importance, among other relevant considerations. These tours were conducted in both the Andean and Amazon areas.

The participatory action research has also included a dialogical feminist perspective, recognizing the diversity of women’s experiences, valuing the situated place from which they speak, and recognizing emotions, practices, and experiences as fundamental elements to construct knowledge. Dialogue has been an ongoing and central method to construct collective knowledge that challenges dominant power structures and opens a space to validate women’s knowledge, based on the principles of inclusion and justice.

In the analysis and systematization phase, a database of 264 recorded species was consolidated and a species guide was created, categorizing uses according to those identified by the community: a) ornamental, b) medicinal-spiritual, c) edible, and d) ecologically important. Finally, information validation sessions were held with the Gran Tescual community, which included focus groups with authorities from the Indigenous Reservation, farmers, women, and youth, to identify key botanical species and construct this illustrated guide. Ten species were selected for each category and are highlighted in this document. Prioritization



was based on criteria such as threat level, endemism, and community use.

In addition, this guide contains two annexed infographics. The first features the territory's most important orchid species and those that are representative of the Reservation's Amazon area, and the

second shows the most important birds present in both ecosystems, which are very important in the conservation efforts carried out by the reservation.



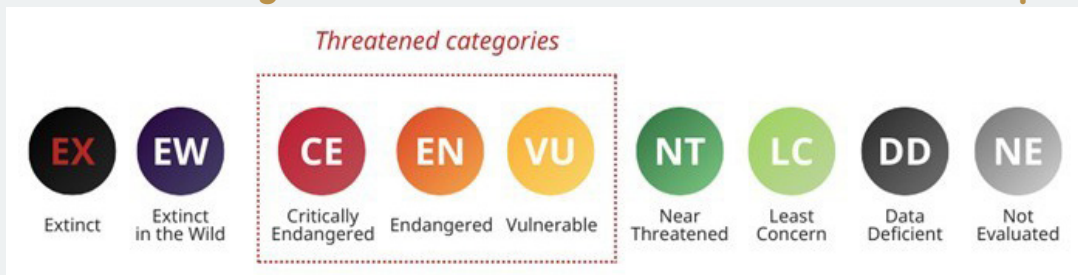
Guide use

This guide contains species grouped in five community use categories, defined in consensus with the community:

1. **Ornamental:** Plants that are valued mainly for their beauty and are used to decorate spaces such as gardens, paths, and common areas. These plants beautify the surroundings and often have a special cultural or spiritual significance for the community.
2. **Timber:** Tree species that are used to obtain lumber, whether to build houses, furniture, tool manufacturing, or as firewood for cooking. Their responsible use helps to sustain community resources in the long term.
3. **Edible:** Plants that are essential to the community's diet. They include fruits, seeds, roots, and other plant parts that are consumed as food, often being an essential source of nutrition and part of the traditional food heritage.
4. **Ecological importance:** Plants that play a key role keeping the ecosystem in balance. They help protect the soil, keep water clean, and provide homes for many animal species. Their conservation is vital to the health of the natural environment.
5. **Medicinal:** Plants that are used to prevent or cure diseases and to maintain the physical and spiritual health of the community. They are part of the traditional knowledge transmitted from generation to generation and have a profound value in the Indigenous worldview.

The threat level faced by each species is also included, using the acronyms defined by the IUCN (International Union for Conservation of Nature). The IUCN classification assesses the extinction risk of species and is determined by a rigorous analysis of criteria such as population decline, geographic range, habitat fragmentation, and quality of the surroundings. The levels of threat include categories such as Vulnerable (VU), Endangered (EN), and Critically Endangered (CR), among others (see illustration 2). This guide also indicates the threat level for species according to the IUCN classification, helping the community to identify which plants are endangered and need increased protection.

Illustration 2. Categories of the IUCN Red List of Threatened Species



Source: Biodiversidad.co. (2024). Categories of the IUCN Red List of Threatened Species. <https://biodiversidad.co/post/2024/lis-ta-especies-amenazadas-colombia/>

It is important to mention that this guide includes several species that share the same common name, probably due to similarities in appearance or use. Nevertheless, they are different species. For example, we have two species of congón, two species of encenillo, two species of “cucharo” or Andean Blueberry, two species of mortino, two species of “cerote” and two species of oak. Attention should be paid to these differences to better understand the biodiversity and specific uses of each plant.

Lastly, if you are interested in learning the common names of some of the species present in the territory and recorded in this guide or the names used in other regions of the country, please reference the appendix at the end of the guide called: Common names according to the regions where they grow in Colombia.

Illustration 3. Informative elements about the species.

Common name

Carbunquillo

LC

Threat category

Scientific name
and author who
first identified the
species

Meriania splendens Triana
Tree

Growth habit

Uses: Its leaves and flowers are used in infusions to treat various ailments, such as respiratory and digestive problems. Its bright flowers attract pollinators such as bees and birds, facilitating the pollination of other plants in its habitat. It also helps prevent soil erosion in mountainous areas and provides shelter and food for a variety of organisms. Its presence is an indicator of the health of the montane ecosystem. Reforestation, Edible fruit.

Uses

Representation
for the Pasto
People

Representation for the Pasto People: Moon flower, related to feminine connection, gives health and harmony.

Where the species
was registered

Zone: Chapal, San Mateo area.

Species photo





Let's learn about the ecosystems where the species in this guide grow

This illustrated botanical guide offers a selection of species that are an integral part of the diverse ecosystems in the Gran Tescual territory. Located in the high mountains, these ecosystems include the high Andean forest, the ecotone forest or shrubland transition, and the páramo or high-altitude bog ecosystem. In addition to these formations, some of the selected plants also come from chagras, cultivated areas that are essential for the subsistence and well-being of the Indigenous community.

Chagras are spaces where native and traditional species are grown. They not only

provide food but are also fundamental for biodiversity conservation and to maintain a natural balance. These community food gardens reflect the harmonious relationship between Indigenous peoples and their environment, promoting sustainable practices and respect for nature.

Through this guide, we invite you to participate in a deep exploration of plants that not only beautify the landscape but are also essential for the life and equilibrium of our sacred surroundings, thus strengthening the cultural identity and connection between communities and their territory.



THE SACRED INTERCONNECTEDNESS BETWEEN THE PLANT ECOLOGY OF THE HIGH ANDEAN FOREST AND THE WORLDVIEW OF THE PASTOS PEOPLE

Illustration 4. High Andean hillside forest in Chapal, San Mateo.



Source: Produced by the organization.

The plant ecology of the high Andean forest in the Gran Tescual Indigenous Reservation represents groupings of plant species that interact with each other and their environment, creating a complex and dynamic system. This ecology, dominated by species such as *Clusia multiflora* (Guandera), *Axinaea* sp., *Myrsine guianensis* (Cucharo), *Weinmannia rollotii* (Oak), *Hedyosmum cumbalense* (Granizo or Guayusa), and *Miconia* sp. not only form the ecosystem's structural and functional foundation, but

also have a profound spiritual and cultural significance.

From the Pastos worldview, territory is more than a physical space; it is a living entity that maintains a balance between the material and the spiritual. In the high Andean forests of our lands, we find the Angasmayo Waterfall, which bathes the territory and is intimately tied to the myth of Angasmayo. This sacred waterfall is



Illustration 5: Angasmayo Waterfall

believed to be the point where heavenly waters touch earth. According to the cosmogony of the Pastos, Angasmayo channels the vital energy of the cosmos to the territory, acting as an intermediary between the Kay Pacha Yaku (Water World) and Earth.

The term “Angas” means “eagle’s flight” and symbolizes the connection between Cerro Kuntur (Condor Mountain) and the river’s course, crossing páramos and forests and flowing into the waterfalls. This river is not just a body of water, but a spiritual entity that embodies cleanliness, connection to life, harmony, prosperity, and strength. As one of the largest rivers flowing through the territory, the Angasmayo is seen as a source of spiritual energy, impregnating the plant ecology and all living beings with its life force.

The plants of this forest not only sustain ecological balance, ensuring soil stability and water regulation, but also play a crucial role in keeping the cultural identity of the Pastos People alive. Recognizing the value of this sacred territory reflects a deep understanding of how respecting and caring for these plant ecologies is inseparable from the communities’ cultural and spiritual well-being. For the Pastos People, the forest is not only a habitat, but a living manifestation of their identity and resistance, an eternal connection between the sacred and terrestrial realms.

Source: Produced by the organization

THE SACRED SHRUBLAND OF THE TEMPLO DE PIEDRA (STONE TEMPLE): THE CONNECTION BETWEEN ECOSYSTEMS AND SPIRITUALITY AMONG THE PASTOS PEOPLE

Illustration 6. Alpichaque Templo de Piedra

The shrubland in this region has a significant vertical structure, dominated by species such as *Myrsine* aff. *dependens* (Cucharo), *Clethra fagifolia* (Carbonero), *Weinmannia rollotii* (Oak), *Oreopanax nigrum* (commonly called bear's paw), *Weinmannia brachystachya* (Oak), and *Myrsine guianensis* (Cucharo). These plant ecologies—which are present in a crucial ecotone or transitional ecosystem between the high Andean forest and the páramo—are essential to the region's biodiversity and ecological balance. Located in the highest areas of the Templo de Piedra, a sacred place for the Indigenous Reservation in Alpichaque region, shrublands acquire a deep spiritual significance.


Additionally, a plant species was identified that had not been previously recorded in this region.

Illustration 7. Tuczara



Source: Produced by the organization

Source: Produced by the organization



Additionally, a plant species was identified that had not been previously recorded in this region.

According to the literature, a new species was documented, the *Glossoloma magenticristatum*, commonly known as Tuczara, which is a species endemic to the northern Andes, specifically in the Colombian departments of Caquetá, Huila, and now southeast Nariño. This discovery expands our knowledge of the distribution of this plant and underscores the importance of ongoing conservation efforts in these mountainous areas.

Based on the Pastos People's worldview, the Templo de Piedra in Monopamba is connected to the Kay Pacha Rummy, or Mineral World, as a part of the energy cycle that extends from the Amazon Piedmont to the center of the earth. This connection is manifested in the lava condensation that gave origin to basalt, considered to be a point of the Waka Knot that represents the origin of the Pastos and their ties to Mother Earth. This shrubland not only fulfills an essential ecological function but also acts as a connection point between the world of the ancestors and the present, between the origin and the now, integrating spiritual and material dimensions in an energy cycle that sustains the life and identity of the Pastos people.

Illustration 8. Puente de Piedra (Stone Bridge)

Source: Produced by the organization

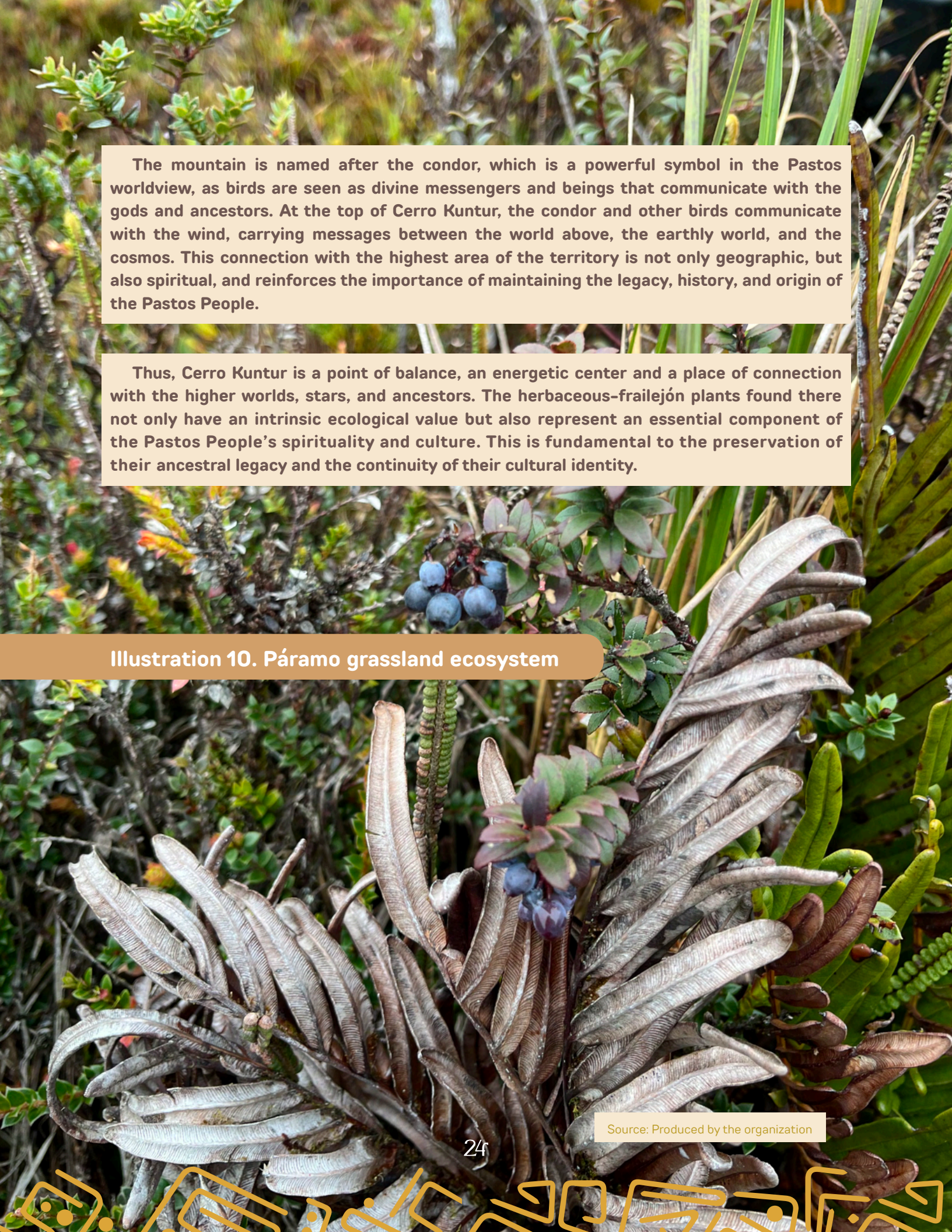
THE HERBACEOUS-FRAILEJÓN AREA OF CERRO KUNTUR: PÁRAMO, A SACRED ECOSYSTEM

Illustration 9. Cerro Kuntur

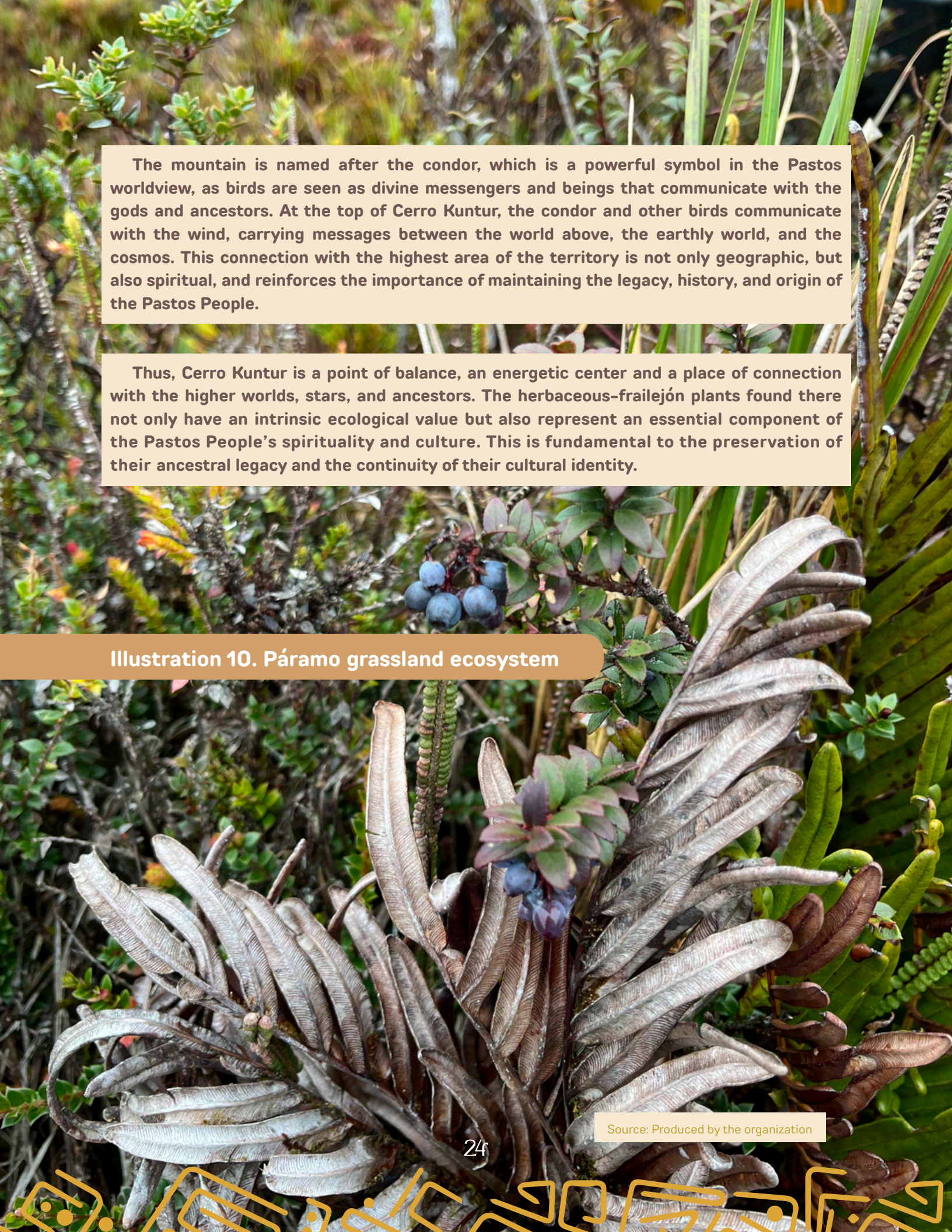
Source: Produced by the organization

In the herbaceous-frailejón (espeltia) area of the páramo ecosystem, the vertical structure is composed of diverse species adapted to the rigorous high mountain conditions, such as *Diplostephium hartwegii*, *Rynchospora macrochaeta*, *Espeletia pycnophylla* (Frailejón, see p. 40), *Cortaderia nitida* (Cortadera), and *Loricaria thuyoides* (Wild Rosemary). This ecosystem is located in the Cerro Kuntur sacred site between Rosal and Esperanza; it is a site of deep spiritual relevance for the Indigenous community.

Cerro Kuntur is considered sacred in the Pastos worldview because of its connection with the Kay Pacha Pumamaque (Plant World) and the Kay Pacha Kuntur (Animal World). Since the páramo is the highest area in this territory, it represents a balance point between the cosmos, stars, and the earth. It is a place where energies are harmonized. Its preservation is therefore crucial to maintain both ecological and spiritual balance.

The background image shows a dense páramo ecosystem with various plants, including green shrubs and tall grasses. A light beige text box is overlaid on the upper left portion of the image.

The mountain is named after the condor, which is a powerful symbol in the Pastos worldview, as birds are seen as divine messengers and beings that communicate with the gods and ancestors. At the top of Cerro Kuntur, the condor and other birds communicate with the wind, carrying messages between the world above, the earthly world, and the cosmos. This connection with the highest area of the territory is not only geographic, but also spiritual, and reinforces the importance of maintaining the legacy, history, and origin of the Pastos People.

The background image shows a dense páramo ecosystem with various plants, including green shrubs and tall grasses. A light beige text box is overlaid on the upper right portion of the image.

Thus, Cerro Kuntur is a point of balance, an energetic center and a place of connection with the higher worlds, stars, and ancestors. The herbaceous-frailejón plants found there not only have an intrinsic ecological value but also represent an essential component of the Pastos People's spirituality and culture. This is fundamental to the preservation of their ancestral legacy and the continuity of their cultural identity.

A close-up photograph of frailejón plants, which have long, narrow, silvery-grey leaves. Small clusters of blueberries are visible among the foliage.

Illustration 10. Páramo grassland ecosystem

Source: Produced by the organization

The background of the page is a photograph of a 'chagra', a traditional Andean cultivation space. It is densely packed with various plants, including orchids, heliconias, and other tropical species. The plants are growing in a variety of containers, many of which are recycled, such as old metal cans, plastic bottles, and wooden crates. The scene is vibrant with green foliage and some yellow flowers.


WOMEN OF THE KAY PACHA PUMAMAQUE: ESSENTIAL AGENTS OF CULTURAL REPRODUCTION THROUGH THE CHAGRA

Indigenous women have been, and continue to be, the heart of ancestral wisdom regarding the Kay Pacha Pumamaque (Plant World), especially through the chagra, which is a sacred cultivation space. In the chagra, women not only grow and harvest plants that are essential to their diet, but also ensure the continuity of cultural and spiritual practices by selecting and caring for diverse species. This work is essential to protect the genetic diversity of many ornamental species, such as orchids, vicundos, heliconias, begonias, and anthuriums.

There is a large diversity of orchids in this region; however, many are endangered or have been domesticated, and it is difficult to find them in their native form. Women's relationship with the earth and plants is deep and spiritual, as they see the Pacha Mama (Mother Earth) as the great chagra that nourishes and sustains life.

Illustration 11. Ornamental plant in the chagra

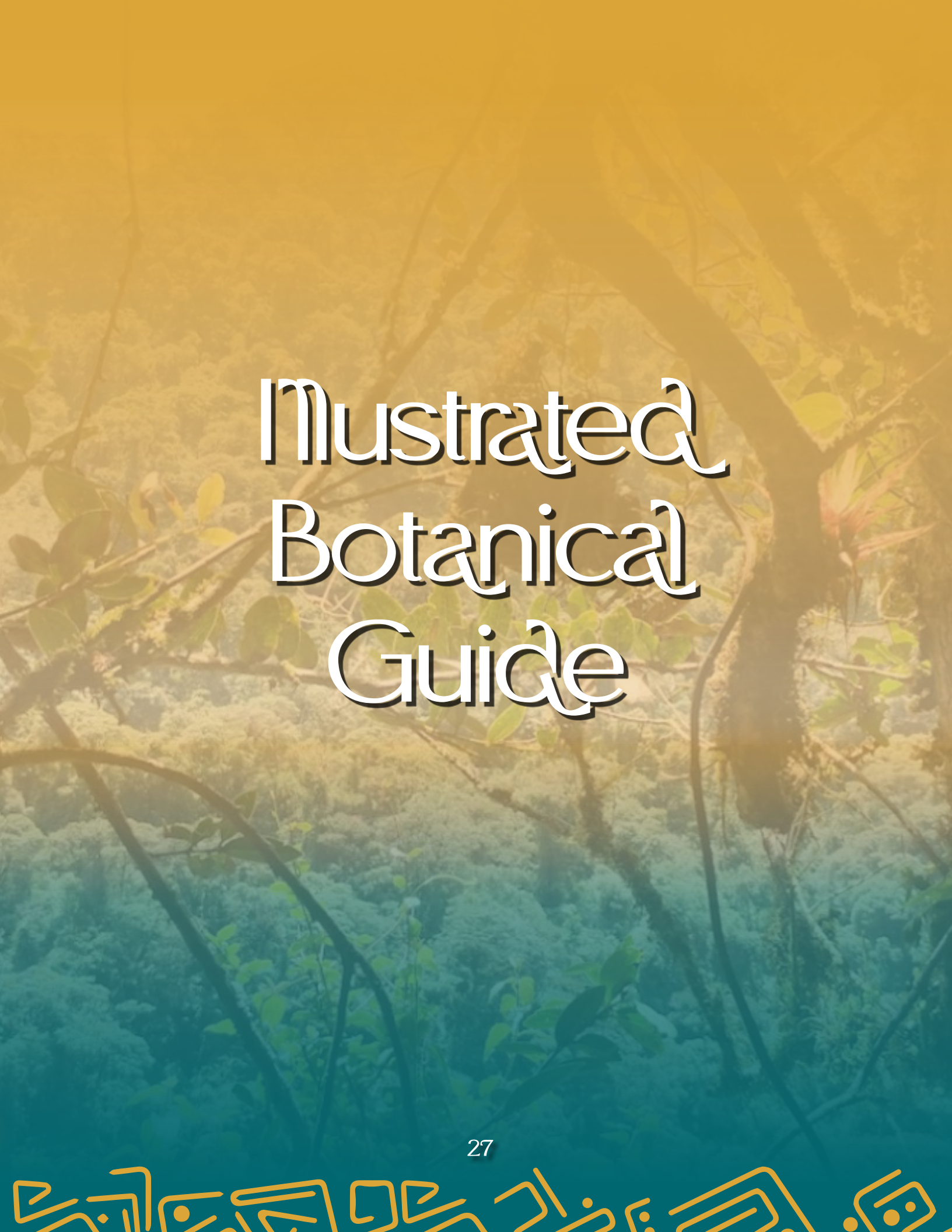
Source: Produced by the organization



Women are the main custodians of biodiversity in the territory. They are the ones who rescue, plant, and spiritually value plants, ensuring the transmission of ancestral knowledge to new generations.

The selected plants, many of which are found in this guide, are an integral part of the life and spirituality of the Gran Tescual Indigenous community. The protection and use of these plants in the chagra is fundamental to maintaining a life in harmony with nature and the cosmos. In the chagra, women find a physical and spiritual space to cultivate life, health, and a connection to the natural environment, teaching the importance of clean, pollutant-free subsistence farming and valuing natural resources as part of a cultural legacy that must be protected and preserved.

Illustration 12. Edible and medicinal plants in the chagra



Illustrated Botanical Guide



Ornamental Plants

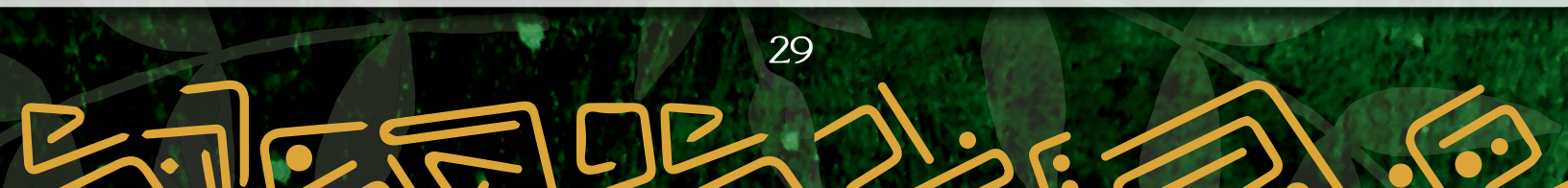
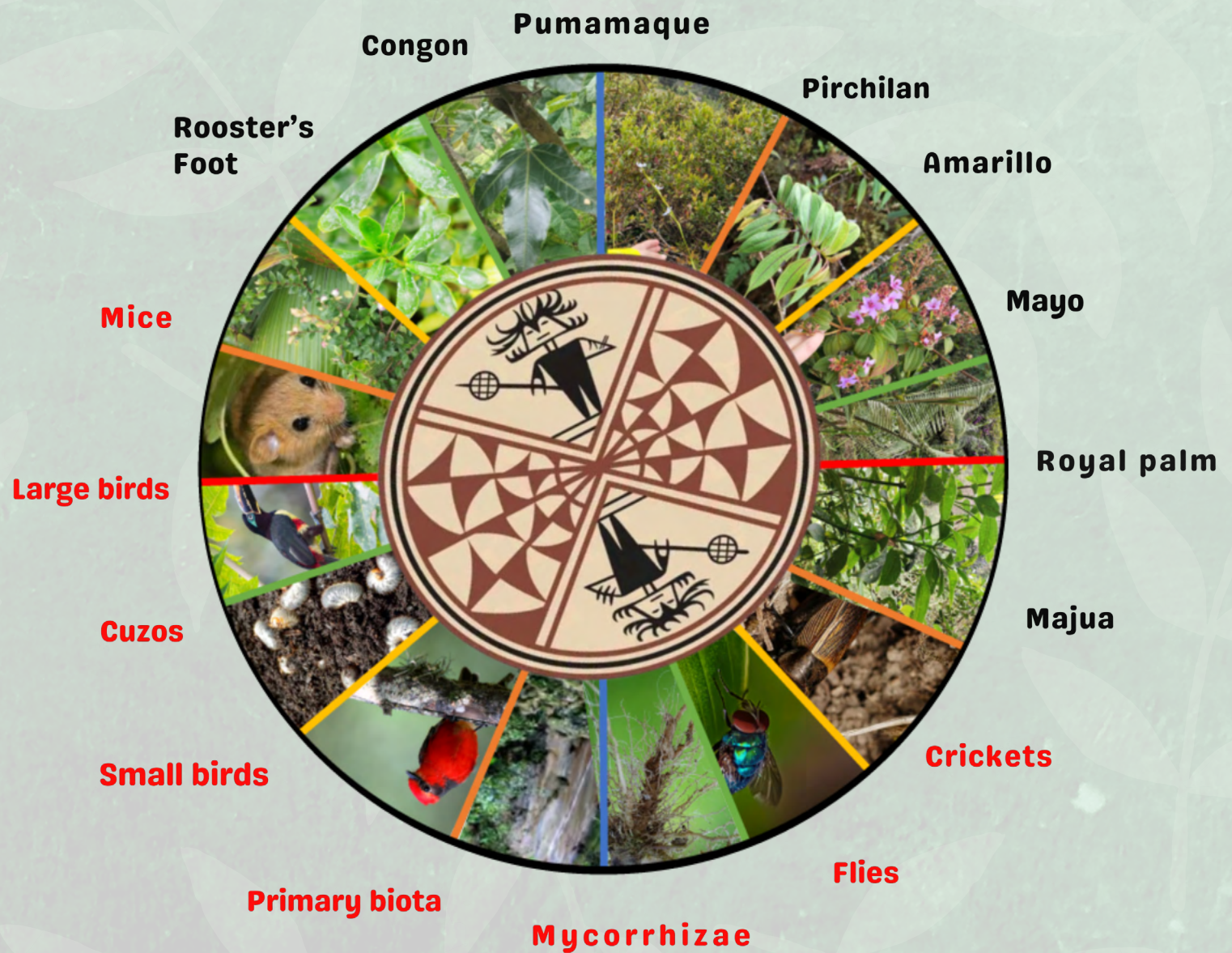
The Andean world is circular, like a big bowl that unites us. Therefore, each species shared in this guide has a reason to be and to exist. Everything that has life, starting with the cell, is circular, united in a spiral by a greater cyclical force. Our world is like a big spider web. Everything is tied together, in connection with the womb, with the deep heart of the earth and the cosmos.

Pasto memorial depictions have marked the history of the communities, which is transmitted through ceramics, wood and stone carvings, baskets, gold work, and other methods to hold and communicate memory in simple, everyday language. The depictions show a life cycle in balance with the solar, lunar, and stellar worlds of the dimensional whole, in harmony and connection, with the unity of concentric figures or parallel lines, in sequences that demonstrate how the territory is seen, felt, experienced, and narrated.

A reading of different symbolic elements, interweaves additional voices, senses, and meanings and this allows us to narrate a story about the origin of our peoples. Hence the connection with the rays of father sun and mother moon, connecting with the visible and invisible worlds. This demonstrates a deep relationship with the earth, fertility, and the flowering of life in all its manifestations of existence, expressed in the different natural and spiritual worlds—the origin of the Pastos People in the Andean Amazon region.

This category is related to the outside world and its beauty. In the inside world it is tied to that which is dynamic, to the interrelation with the microorganisms that maintain natural balance.

Pasto depiction: Lightning God of fertility for the Andean regions.





EN

Tuczara*

Glossoloma magenticristatum J.L.Clark, D.Hoyos & Clavijo
Unbranched terrestrial subshrubs

We have found a new, very special plant that only grows in the high mountains of Caquetá and Huila and was not known to be present in Nariño. The plant climbs on other trees and has very beautiful purple flowers. What makes it different is that its flowers are bell-shaped, and its leaves are a bit rough. It lives in humid and cool areas, among the clouds.

Zone: Alpichaque in Puente de Piedra and El Playas waterfall

* Common name in Qwast language meaning: Plant of the earth and birds)

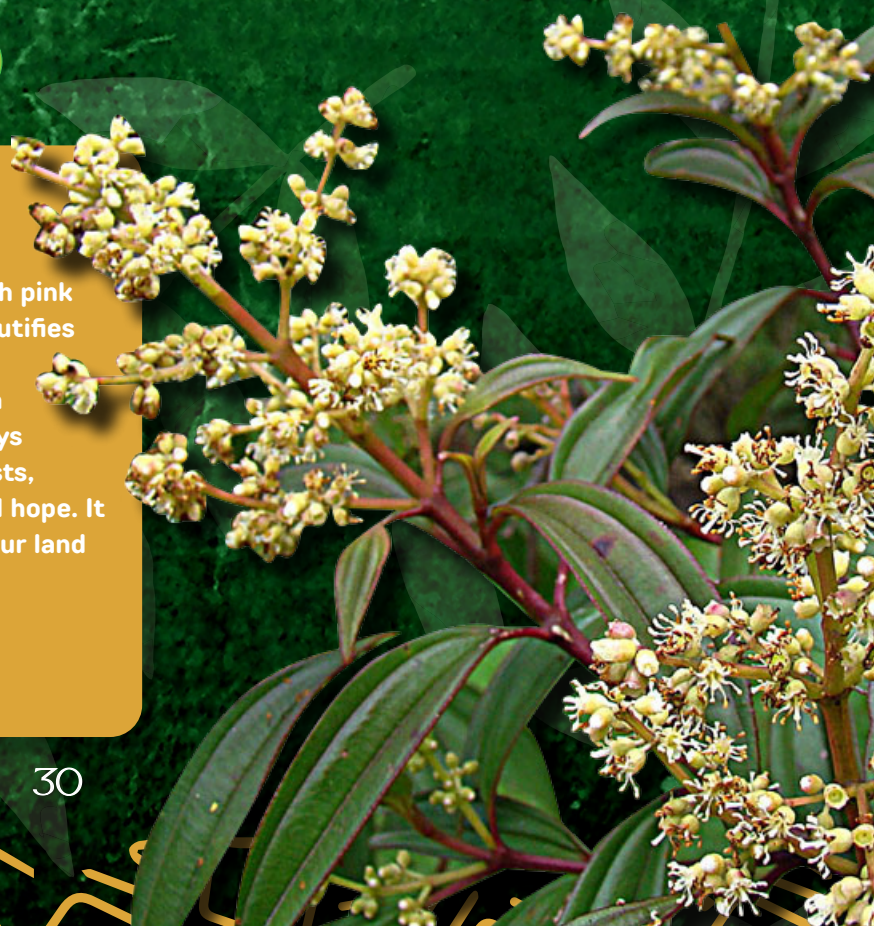
Amarillo

LC

Axinaea macrophylla (Triana)
Small tree

Our territory has a tree that has flowers with pink tones reminiscent of the sky at dawn. It beautifies the land while its heartwood, with a golden yellow tone, is valued for home construction and crafts. This tree feeds the birds and plays a crucial role in regenerating damaged forests, symbolizing our community's resistance and hope. It reminds us of the importance of caring for our land for future generations.

Zone: Tescual, El Páramo township



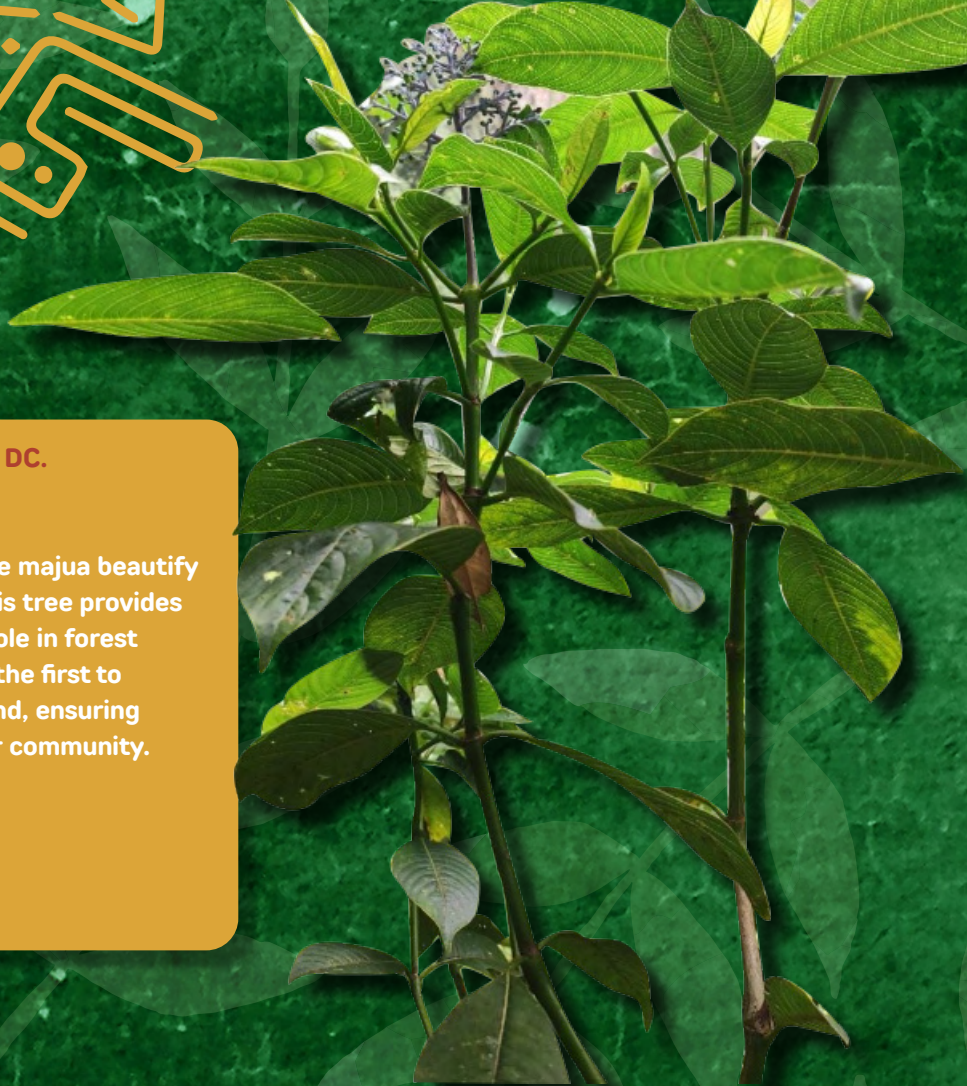
Majua NE

Palicourea amethystina (Ruiz & Pav.) DC.

Tree

Uses: The vibrant purple flowers of the majua beautify our lands. In addition to its beauty, this tree provides food for birds and other animals. Its role in forest regeneration is crucial, as it is one of the first to sprout and restore life to damaged land, ensuring that the land continues to nourish our community. Reforestation.

Zone: Chapal, San Mateo area



Congona o Verdolaguillas EN

Peperomia galioides (Kunth)

Shrub

Uses: This plant has multiple uses and is of cultural and medicinal importance. In traditional medicine, especially in Peru and Ecuador, it is used for its anti-inflammatory, analgesic, diuretic, and digestive properties. It is a key component in the preparation of traditional beverages such as Ecuadorian horchata. The benefits of improved blood circulation, heart health, and overall balance in the body are attributed to it. It is added to chapil, a traditional alcoholic drink.

Representation for the Pastos People: connection with cosmic and spiritual thought.

Zone: Tescual, El Páramo township





Pumamaque*

LC

Oreopanax ecuadorensis (Seem)

Tree

Uses: This is a plant of major ecological and cultural relevance to the Indigenous communities of the Ecuadorian Andes and southwestern Colombia. Valued for its capacity to regenerate eroded soil and its role in the reforestation of riverbanks. Additionally, its wood, which is soft and pliable, is used to make household utensils and for rural construction. In traditional medicine, infusions and decoctions from the leaves are used to treat wounds, rheumatism, and for postpartum baths, preserving ancestral knowledge about its healing properties.

Representation for the Pastos People: It represents the sacred number of the tri-dimension, signifying the puma paw.

Zone: Tescual, El Páramo township

* Common name in Qwast language meaning: site of the puma tree)

Pirchilan*

LC

Orthrosanthus chimboracensis (Kunth) Baker
Herbaceous

This plant is native to the mountainous regions of Central and South America.

It grows in open grasslands and disturbed areas. It also acts as a natural insect repellent, which contributes to its ecological management in Indigenous communities where it is valued both for its beauty and practical utility.

Uses: The stalk is used for panela candies

Zone: Tescual, El Páramo township

* Common name in Qwast language meaning: plant of water, the heavens, and the depths)

Rooster's foot LC

Gaultheria glomerata (Cav.) (Sleumer)
Shrub

Uses: This plant plays an important role in mountain ecosystems, helping to stabilize the soil and provide food for various species of fauna such as turkeys, sparrows, chihuacos, and crickets due to its berries. Although it is not as widely recognized for its medicinal uses, some local communities value this plant for its potential anti-inflammatory properties and use it in infusions to relieve cold symptoms. Its ability to grow in difficult conditions also makes it a key species for biodiversity conservation in its natural habitat.

Zone: Tescual, El Páramo township



NE Mayo

Chaetogastra mollis (Bonpl. DC)
Tree

Uses: Ornamental. Reforestation. The flowers are useful for coughs. Ecologically, it plays a role in stabilizing the soil of mountain slopes, contributing to erosion prevention. Its flowers are also a source of nectar for pollinating insects, such as bees and butterflies, which helps to maintain local biodiversity. The plant is a keystone species in the natural regeneration of disturbed areas in its habitat, promoting ecosystem health. It is native to western South America (Colombia, Ecuador, and Peru).

Representation for the Pastos People: Praise to the Southern Cross

Zone: Tescual, El Páramo township



Royal palm *

VU

Ceroxylon quindiuense (H.Karst. H.Wendl.)

Also known as the wax palm, it is the tallest palm in the world and the national symbol of Colombia. It provides habitat and food to several species, including the Andean condor, an endangered bird, and its wax-covered trunk contributes to water regulation in the forests where it grows. Its fruits are central to the diet of small mammals and birds. Historically, the palm has been used by Indigenous communities to build houses and make utensils, taking advantage of its durable wood. However, the uncontrolled extraction of its leaves for religious celebrations and wax for industrial uses has put its survival at risk. Conservation efforts are currently underway to protect this endangered species, highlighting its crucial role in Andean mountain ecosystems and its cultural value to local communities.

Representation for the Pastos People: A greeting to the waira wind.

Zone: Tescual, El Páramo township

* Common name in Qwastu language meaning: Gualte: animals that are high and far away)

NE

Amarillo Colca

Miconia crocea (Desr. Naudin)

Uses: Native to the Ecuadorian and Colombian cloud forests, between 2,000 and 3,400 m above sea level. It is valued by Indigenous communities for its medicinal uses, the leaves and bark are used to treat skin infections and digestive problems. It plays an important ecological role by providing food to birds and mammals that disperse the seeds, helping to regenerate forests. It also helps to prevent soil erosion on mountain slopes, which contributes to ecosystem stability. Its presence favors biodiversity in the underbrush of tropical Andean ecosystems.

Zone: Tescual, El Páramo township



Timber Trees

The symbolic depictions that hold the memory of the origin of the Pasto People's territory demonstrate the connection between plants and the earth, the origin myth of the Tescuales, and their connection with human, spiritual, and energetic life. The world above and the world below dance in a continuous and incessant creation of worlds. When they meet they transform the thoughts and words of those who walk the shaquiñanes (paths) of life, that is why everything is interconnected, say the elders.

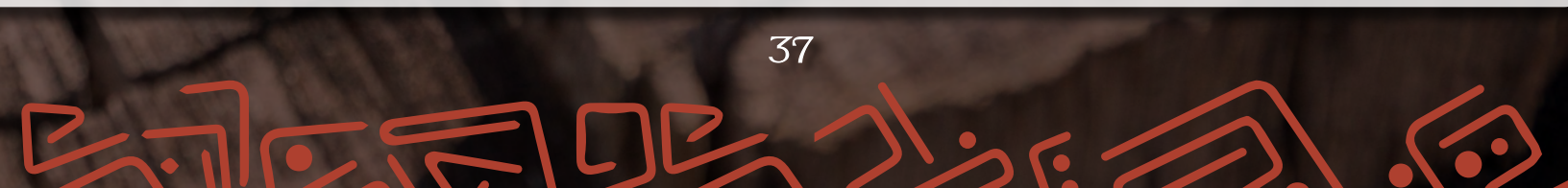
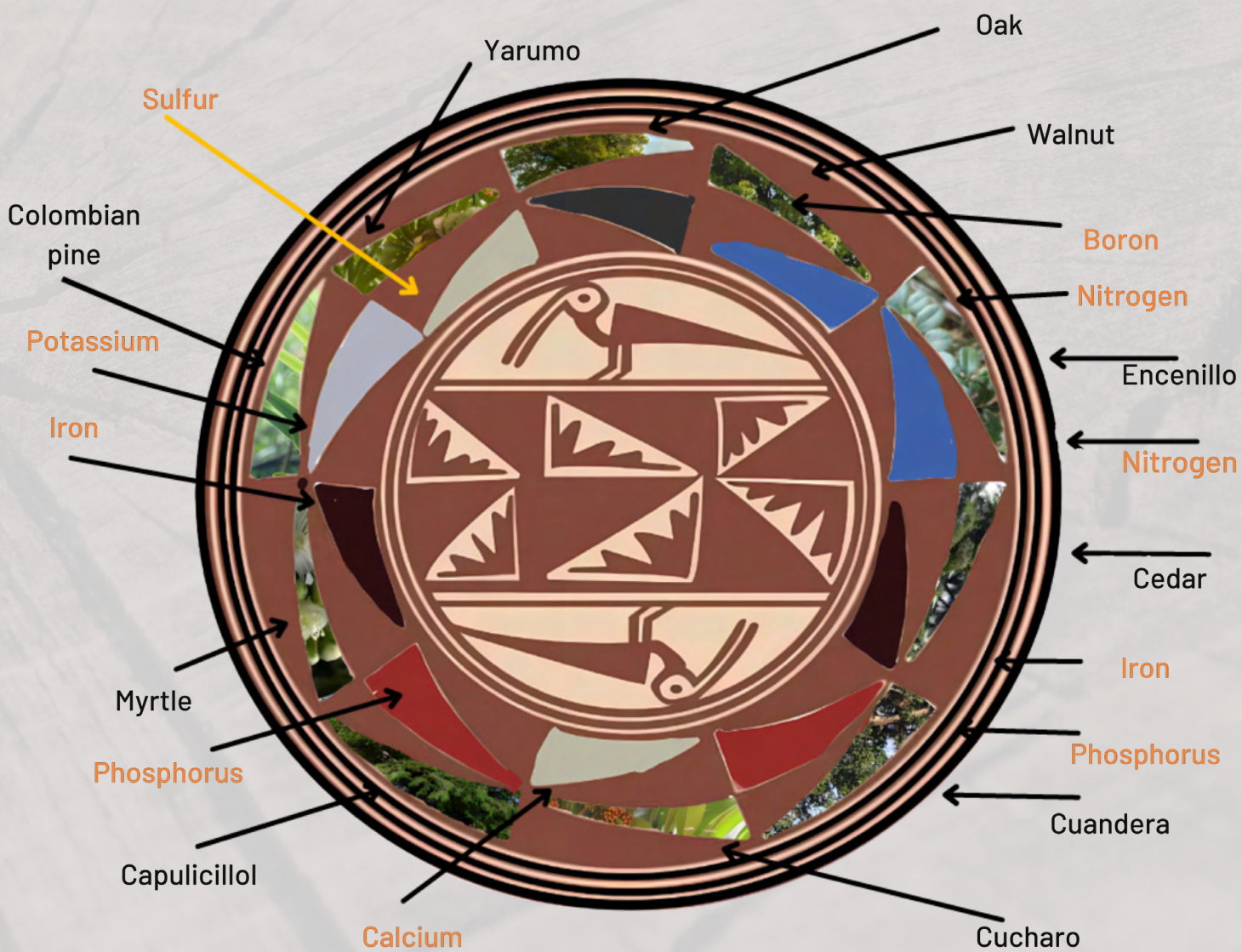
The representations depict the life cycles of natural species on the mountain, their relationship with minerals, which is the deep connection with the center of the earth, the origin, which represents energy, the cycles of our existence in movement.

The earth is a living organism that feels, speaks, communicates, and cries. There is no doubt about that, however there is also a diversity of knowledge, feelings, and actions that have generated a cultural, political, environmental, and economic crisis. It is important to reflect on this while exploring the memory of our people and reading the present.

These plants are related to the mineralization that has formed the planet. These plants aid mineral transformation and use.

The mineralization process is proportional to the level of carbon sequestration and is a bioindicator of ecosystem health.

Pasto depiction: The dynamic between fertility and seeds



Walnut

EN

Juglans neotropica (Diels)

Tree

Uses: Different resins and substances are extracted from this plant (such as juglandin and juglone), with a variety of uses in the textile industry and medicine (for immune system diseases). The fruit is edible and it has high-quality wood, which is used in construction and to manufacture furniture.

Representation for the Pastos People: The dye of the Pastos culture, cinnamon of the ruanas. Black cedar.

Zone: Tescual, El Páramo township

Encenillo

NE

Weinmannia fagaroides Kunth

Shrub

Uses: Used to make fences, for firewood, etc. It also has medicinal uses. This plant acts as a pioneer, in other words, it is one of the first plants to grow in cleared areas. This helps stabilize the soil and promote biodiversity, as other plants and animals can establish themselves thanks to its presence.

Local communities use it for firewood and construction because the wood is very resistant. Its presence also indicates that the páramo ecosystem is healthy. Therefore, conservation is very important to help maintain balance in these fragile environments.

Zone: La Antena



NE

Encenillo

Weinmannia balbisiana Kunth
Shrub

This tree is valued for its wood, which is used in construction and as firewood. It also plays a crucial role in the ecology of cloud forests, where it helps stabilize the soil and conserve water. It is used in traditional medicine for its anti-inflammatory and antioxidant properties, holding an important role in community health.

Uses: Reforestation

Zone: Tescual, El Páramo township

Cedar Timber

NT

Cedrela montana Moritz ex Turcz
Tree

Uses: Known for its durability and strength, this wood is valued for both construction and furniture manufacturing. In addition to its economic value, this species plays a crucial role in the ecology of mountain forests, where it helps to protect the soil and regulate the water cycle. Its ability to regenerate degraded lands also makes it an ally in the conservation of ecosystems and the restoration of natural habitats. The conservation of Cedrela Montana is vital due to threats from deforestation and unsustainable extraction.

Zone: Alpichaque in Puente de Piedra and El Playas waterfall.





Guandera*

NE

Clusia multiflora Kunth

Tree

Its thick, glossy leaves and showy white or pink flowers make it a popular tree. It has a significant ecological role: it acts as a nurse plant in its natural habitat, facilitating forest regeneration by protecting and improving the microenvironment for other species to grow. Its traditional medicinal properties, used to treat inflammation and skin conditions, highlight its cultural and practical relevance in various Indigenous and rural communities.

Representation for the Pastos People: The tree of fire from within, seeks to connect with the heart of the earth.

Zone: Rosal and Esperanza

* Common name in Qwastu language meaning: "Cuande: Depth of the man from afar")

NE



Cucharo

Myrsine dependens (Ruiz & Pav.) Spreng.

Tree

This species contributes to soil stabilization and erosion prevention. It is especially useful in areas with poor soil quality. It also has ornamental uses and is valued for its drought resistance. Culturally, it is significant in traditional environmental conservation practices, where local communities benefit from its medicinal properties, which include anti-inflammatory and antioxidant effects, although specific studies on its applications are still underway.

Representation for the Pastos People: Relationship with food and approved through everyday knowledge, not every wood is good for a spoon.

Zone: Rosal and Esperanza



NE

Capulicilla Capuli

Freziera canescens Bonpl.
Tree

The attractive white and fragrant flowers not only beautify the landscape but also provide a valuable habitat to various species of birds and wildlife. This plant is also used in landscaping as a groundcover and is valued for its rapid growth and ability to thrive in well-draining soil and direct sun. In the context of ecological conservation, it plays a crucial role in protecting biodiversity where deforestation has severely impacted the ecosystem.

Uses: Bird food

Zone: El Páramo township

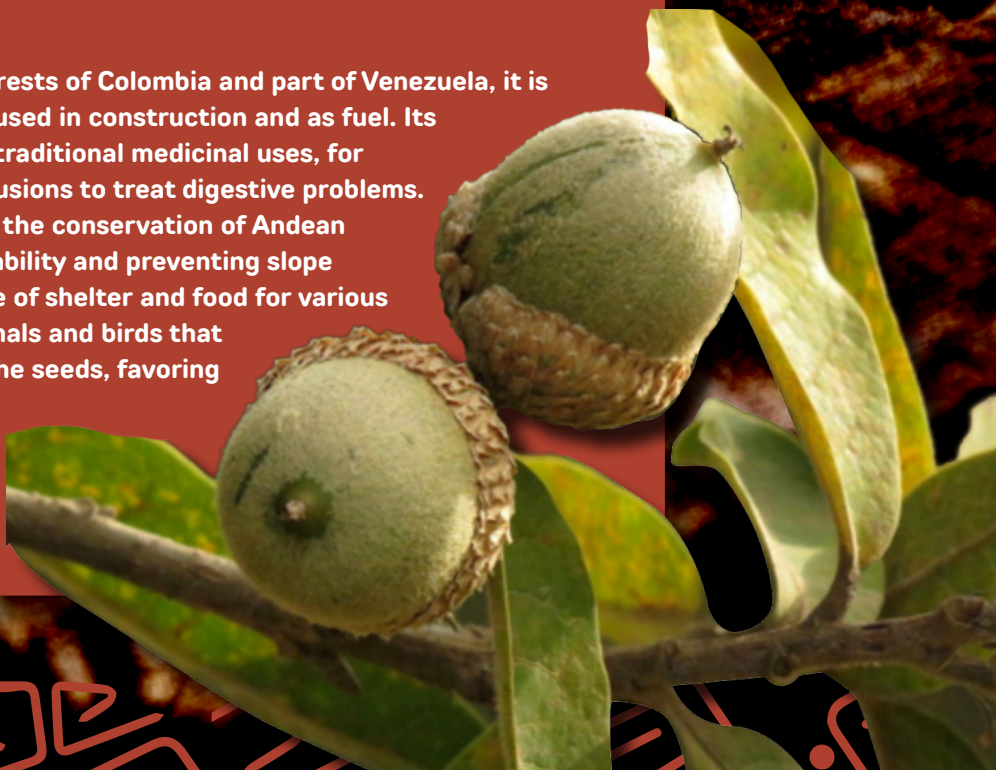
Oak

VU

Quercus humboldtii Bonpl.
Tree

Uses: Native to the montane forests of Colombia and part of Venezuela, it is prized for its high-quality wood, used in construction and as fuel. Its acorns also have nutritional and traditional medicinal uses, for example in the preparation of infusions to treat digestive problems. Ecologically, it plays a key role in the conservation of Andean forests by contributing to soil stability and preventing slope erosion. It also serves as a source of shelter and food for various species of fauna, including mammals and birds that feed on its acorns and disperse the seeds, favoring a regeneration of the ecosystem.

Zone: Alpichaque



Colombian pine or Romero pine

NE

Podocarpus sp

Uses: This tree grows in the Andean mountain forests, particularly in Colombia, Ecuador, and Peru. Its wood is used by Indigenous and rural communities for construction, and some species have medicinal uses. For example, the bark and resin can be used to treat respiratory ailments. Ecologically, it plays a fundamental role in stabilizing the soil, preventing erosion, and retaining water on slopes. Additionally, its fruits feed birds and mammals, which help to disperse the seeds, facilitating forest regeneration. This species is an indicator of healthy ecosystems, and its conservation is essential for the biodiversity of Andean forests.

Zone: Alpichaque





Yarumo

EN

Cecropia sciadophylla Mart.

Uses: A common tree in the tropical forests of South America, especially in the Amazon and the Andes. Indigenous communities value its leaves and bark for their medicinal properties, using them in infusions to treat respiratory and digestive problems and as an anti-inflammatory. Ecologically, it is a pioneer species that rapidly colonizes disturbed areas, contributing to forest regeneration and improving the soil structure. Its fruits are also an important source of food for various species of birds, bats, and mammals, which help to disperse the seeds, favoring local biodiversity. Its light and soft wood is mainly used to make crafts, domestic goods such as platters, and in some cases to construct temporary housing and roofs. Although it is not known for its strength, its wood is easy to work with and appreciated for its availability in areas where the tree grows quickly. It is also used as firewood in rural communities.

Zone: Alpichaque



Edible plants

The symbolic and graphical depictions are demonstrative of different knowledge relations. So, too, of the depth of the Pasto world vision, marking the dynamics of time and space that become memory activated through the journey. This exterior world is represented by the variety of terrestrial life. The present world is manifested through the flavors, colors, and food of all species, marking an intimate relationship. For thousands of years, our cultural DNA, knowledge, thought, and action that have been connected to our origin and the dynamic process of our existence. Food, like life, is a connection to our ancestors, but also to the hope of keeping alive our bodies and the territory, as one, today and tomorrow.

It is from this process of reading the pictorial worlds that stories and methods of territorial organization can be interwoven. In this sense, territorial planning is directly tied to the constant interpretation of our sacred and spiritual origin in order to survive in a harmonious relationship with nature.

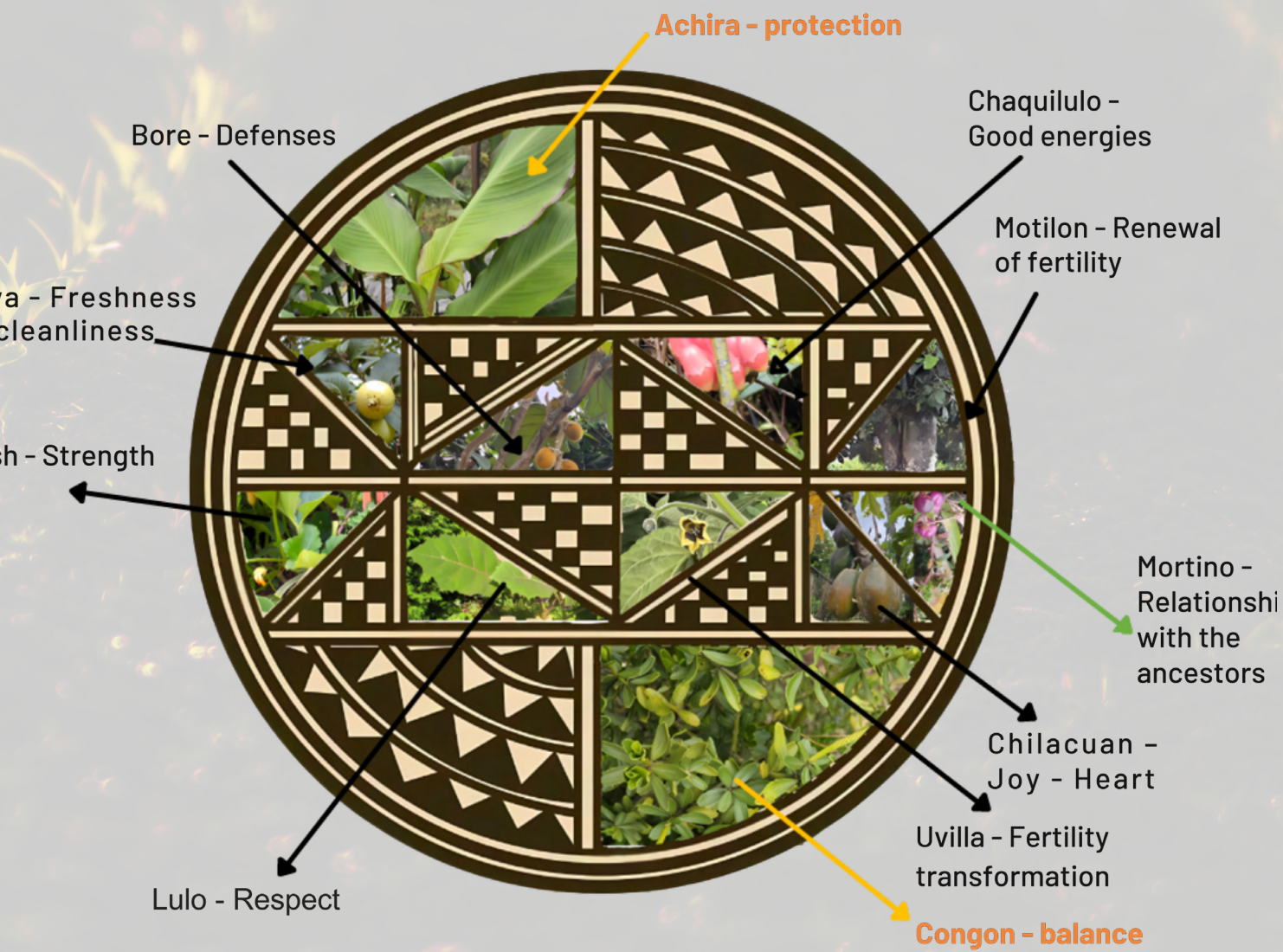
Although this category relates to food, it forever leads to or generates wellness.

These plants are related to the balance of the mind, body, and spirit and uses may not always be via ingestion. It may be that their scent or “air” is medicinal.

Pasto Depiction: Vibrations

Guava
and c

Squash





Chaquilulo o Limoncillo*

LC

Thibaudia floribunda Kunth
Shrub or epiphyte

Uses: The fruits are edible, sweet and aniseed flavored. It is medicinal and used to cure spiritual maladies and fright.
Representation for the Pastos People: The communication that feeds the chasquis, a symbol of connection between the three realms, a food that we share with the birds as the messengers of the cosmos, their roots connected to the memory of the ancestors.
Zone: La Antena

*Common name in Qwastu language meaning: Flavorful center)

Motilón

VU

Hieronyma macrocarpa Müll.Arg
Tree

Uses: Edible fruit, bird food, Andean bear food, timber, fodder, preparation of wines in Encano, and reforestation.

Representation for the Pastos People: Considered the spirit of the mountain, it has special powers to heal, protect, and guide human beings. It is associated with fertility, abundance, and renewal. The motilon is a being of great respect that imbues us and gives us health.

Zone: Tescual, El Páramo township





NE

Mortino

Vaccinium laurifolium var. laurifolium
Shrub

This plant is known for its ability to grow in nutrient-poor soil, thanks to its symbiotic relationship with mycorrhizal fungi, allowing it to access essential nutrients such as nitrogen and phosphorus. This adaptation is crucial in mountain ecosystems where other plants might not thrive and thus it contributes to the biodiversity and stability of these environments.

Uses: Edible fruit used to make coladas or fruity drinks and jams.

Representation for the Pastos People: Used to connect with and honor the deceased, request blessings and maintain the balance between life and death. Used for beverages on the day of the deceased.

Zone: Rosal and Esperanza

Uvilla

NE

Physalis peruviana L.
Shrub

Use: Native to the Andes. Traditionally, it has been used in folk medicine to treat a variety of diseases such as cancer, leukemia, and rheumatism thanks to its high levels of vitamins A, C, and B complex, along with carotenoids and phosphorus. Ecologically, it plays an important role, growing from the forest edges to the river banks, contributing to local biodiversity. Culturally, it has been part of Andean agriculture since Incan times. The fruit has multiple uses in the kitchen, as it is consumed fresh, in jams, or as a garnish. Valued for its sweet and sour taste.

Representation for the Pastos People: Associated with mullus, the small seeds that generate transformations and fertility; a medicinal plant.

Zone: Tescual, El Páramo township



Guaya

LC

Psidium guajava L.

Tree

Uses: Traditionally, it has been used to treat a wide range of conditions, including gastrointestinal problems such as diarrhea and dysentery, as well as respiratory and skin diseases. Additionally, it has been recognized as an antioxidant, which may be beneficial to treat chronic diseases such as diabetes and to improve skin health. Guava also has an important economic role; as a widely grown and consumed crop, it contributes to the local economy, preserving ancestral cultural practices related to its medicinal use.

Zone: Tescual, El Páramo township

Widely distributed.



NE

Bore

Xanthosoma sagittifolium (L.) Schott
Herbaceous

Uses: Ornamental and edible. It is commonly grown in tropical regions where its starch-rich corms are an important source of carbohydrates, similar to potatoes. In addition to its nutritional value, taro is essential in the diet of people with gluten intolerance as its starch does not contain the gluten protein. The leaves are also nutritious and are often used as fodder for livestock. In traditional medicine, its large leaves have been used to treat fevers and, in various cultures, as an antidote for insect bites. Some parts of the plant are used in soups, stews, roasts, fried foods, soft drinks, beverages, and sweets and its flour in breads, baked goods, and cookies.

Zone: Alpichaque



NE

Squash (Zapallo)

Cucurbita maxima Duchesne
Herbaceous

Uses: This plant has a significant cultural and economic importance. Native to South America, it has been grown since pre-Hispanic times and is valued for its versatility in food and traditional medicine. The fruit is rich in nutrients and is used in a wide variety of dishes. Additionally, its seeds and other parts of the plant have medicinal properties and are used to treat ailments such as intestinal parasites and urinary problems.

Representation for the Pastos People:

The male pumpkin. The female pumpkin and male squash are both important and necessary plants in the local Andean diet.

Zone: Alpichaque

Lulo

NE


Solanum quitoense Lam.
Shrub

Uses: Native to the Andes, it produces a fruit with high content in vitamins A, C, and B, and is famous for its citric and refreshing flavor. The fruit is widely used in juices, desserts, and traditional drinks such as the lulada, especially in Colombia. Although growing lulo has its challenges, such as susceptibility to nematodes, it has a significant economic and cultural potential. However, the need for sustainable agricultural practices is crucial to avoid soil degradation and to protect the environment.

Representation for the Pastos People:

Native naranjilla, associated with abundance

Zone: Tescual, El Páramo township



Achira or Indian Shot

Canna indica L.
Herbaceous

Uses: Ornamental, medicinal use as a diuretic, antiseptic, analgesic, and for its healing properties. Its edible roots were part of the basic diet. The leaves are used to wrap tamales and quimbolitos.

Representation for the Pastos People: A sacred plant associated with medicine, protection, and nutrition. It preserves flavors and marries well with food.

Zone: Tescual, El Páramo township

Chilaçuan*

NE

Vasconcellea pubescens A.DC.
Shrub

Uses: With its naturally acidic flavor, the fruit is used widely to prepare jams, juices, and ice creams, in addition to being eaten stewed or in soups. Medicinally, the plant is valued for its papain content, a digestive enzyme used to treat stomach problems, and for its anti-inflammatory properties, which have been shown to be useful to treat ulcers and wounds. This plant is not only key to the gastronomy of the Andean regions, but also contributes to the local economy and the preservation of ancestral practices related to health and wellness.

Representation for the Pastos People: Water dense plant with nutritional and refreshing powers. It is a symbol of the renewal of the sacred waters of transformation. Chila (plant) yaku (water) an (deep), carrier of the sacred water of transformation.

Zone: Tescual, El Páramo township



*Common name in Qwastu language meaning: center of man - woman of the sky)

Congon

NE

Peperomia inaequalifolia (Ruiz & Pav)
Herbaceous

Uses: An edible plant, very relevant in traditional medicine, especially in countries such as Ecuador and Peru. It is known for its anti-inflammatory and antioxidant properties, and is used to treat various conditions. The plant is rich in essential oils that have been shown to have antimicrobial activity, reinforcing its use in home remedies to treat infections and other ailments. In addition to its medicinal benefits, it is also important in the conservation of local traditions, where Indigenous communities have maintained and transmitted knowledge about its cultivation and therapeutic applications.

Zone: Tescual, El Páramo township





Ecologically important plants

The interpretation of Andean thought in relation to the elemental aspects of life is an expression of the balance between forms of territorial and spiritual governance to guide the movement of the sacred, the power of representation between the visible and invisible, and the materiality of the invisible manifested through the staff or rod of justice, in exercise of its authority, which maintains order and harmony with Mother Earth.

The elemental aspects of life for the Pasto people represent an ordering and transformation of the world, which leaves behind a legacy, organizing the disorder and guiding the journey of Indigenous peoples.

In this sense, earth, air, fire, and water bring order to Indigenous territories, but at the same time, immerses them in dimensions of thought that allow for and understanding of their origin, of movement for the preservation of harmony in the life cycle of the visible and invisible, and of the connection between the inner and outer world.

In this category we prioritized plants related to the life elements (water, air, fire, and earth). These plants are very important in the production or protection of water, oxygen, or air, and for soil protection and the cosmos-environmental relationship.

The well-being of biodiversity is important as it provides habitats and resources for other species and their ecological interactions such as pollination and seed dispersal, strengthening the resilience of ecosystems to climate change.

Pasto depiction: dual quadrature



ant



Earth Cerote
Cojín



Water

Weeping willow
Alder
Carbunquillo

Air

Frailejón
Cerote

Fire Red Oak
Chilco
White Oak



Cerote

LC

Hesperomeles ferruginea (Juss. ex Pers.) Benth.
Small tree

Found mainly in páramo and Andean forest areas. Ecologically, it is vital for soil conservation and to regulate the water cycle where it grows, due to its capacity to retain water and prevent erosion. Additionally, its fruit is a source of food for various bird species, which promotes seed dispersal and ecosystem regeneration. Culturally, in some local communities, it is valued for its medicinal properties and is used for traditional remedies to treat respiratory and digestive ailments.

Representation for the Pastos People: A plant that regulates the balance of internal organs, to protect, strengthen, and balance life (longevity), to stay vigorous and strong.

Zone: La Antena

NE

Weeping willow

Salix humboldtiana Willd.
Tree

A pioneer in the regeneration of wet soils. Adapts well in riverbank areas, where it helps prevent soil erosion. Its pliable wood is used in basket weaving and to make wicker furniture. Medicinally, its bark contains salicylic acid, a compound with anti-inflammatory properties, which is a precursor to aspirin. It is also valued as an ornamental tree in the Andean regions and is often planted to provide shade.

Representation for the Pastos People: This plant promotes the rooting of species and connects with the soil spirits to promote the proliferation of soil organisms.

Zone: Tescual, El Páramo township

Alder

NE

Alnus acuminata Kunth
Tree

Uses: Its wood is highly valued due to its resistance in the construction of houses and to make tools. This tree also plays an essential ecological role in the improvement of soil quality, as its roots add nitrogen, a crucial nutrient for the growth of other plants. Additionally, alder contributes to the formation of topsoil and helps retain water in the soil, favoring the health of the surrounding ecosystem. It provides habitat and food for various species of insects and birds. Reforestation.

Representation for the Pastos People: This tree captures the longing for the greenness of life, for the soil (pulls nitrogen from the air and gives it to the soil)

Zone: Chapal, San Mateo area

Cojín

NE

Plantago rigida Kunth
Creeping plant

Uses: It plays an important role in soil stabilization, as its roots help prevent erosion in arid environments. Additionally, its seeds are a source of food for various species of birds and small mammals. The plant also stands out due to its ability to survive in extreme conditions, contributing to the biodiversity of its habitat.

Representation for the Pastos People: Plant of the fractal thoughts of water, dividing the relationship between the past, future, and present. Thoughts of time.

Zone: Rosal and Esperanza



Frailejón (Espeletia)

Espeletia pycnophylla Cuatrec.

Uses: Endemic species. It is home to many large and small insects. All plants in the Espeletia genus and their habitat are endangered due to human activities and climate change, which cause longer dry seasons and heavy rainfall.

Representation for the Pastos People: Sacred plant that captures the spirits of creation, revitalizing them in time and space to continue building life and the spirit of connection and resistance, which reflects the gold dust of the mountain.

Zone: Rosal and Esperanza

Lichens

NE

Cladonia confusa R. Sant.

Uses: Bioindicators of air quality as they are sensitive to atmospheric pollution. Ecologically, this lichen plays an important role in the formation of soil by decomposing rocks and wood, contributing to the creation of a fertile substrate for other plants. It also provides food and shelter for small invertebrates and acts as a bioindicator of the ecosystem's health. Its presence is a sign of relatively pure and healthy environments.

Representation for the Pastos People: The genetic sequence of life where the world's vital information is transmitted. Associated with medicine, self-care.

Zone: Rosal and Esperanza.





Chilco o Cuasa*

NE

Escallonia myrtilloides L.f.
Tree

Uses: Ornamental, ecological restoration, living fence
Representation for the Pastos People: Red wood tree
representing strength. A tree of dual importance in
conjunction with the chilca.
Zone: Rosal and Esperanza

*Common name in Qwastu language meaning: Chilco: man of the sky)

Oak

NE

Weinmannia rollottii Killip
Tree

Uses: This species is noted for its medicinal properties; its leaves and bark are used in infusions to treat various ailments, such as digestive problems and fever. Ecologically, it plays a vital role in the conservation of the Andean forest. It aids in water cycle regulation by capturing and storing moisture, which is crucial for maintaining ecosystem health. It also contributes to soil formation and stability, reducing erosion and providing habitat and food for a variety of wildlife species, including insects and birds. Its presence is also indicative of the quality of the forest ecosystem, as it thrives in well-preserved environments.

Zone: Rosal and Esperanza



NE

Oak

Weinmannia brachystachya Willd. ex Engl
Tree

Uses: This plant is endemic to tropical forests in the Andean regions of South America, especially in Colombia, Ecuador, and Peru, and has an important ecological role in the forest as it contributes to the structure of the canopy, providing habitat and food for various species of fauna like insects and birds. Its presence also helps to maintain soil stability and regulate the forest water cycle by contributing to moisture retention and erosion prevention. The plant is indicative of a healthy forest ecosystem, as it thrives in well-preserved natural environments.

Zone: Rosal and Esperanza

Carbunquillo

Meriania splendens Triana
Tree

Uses: The leaves and flowers are used in infusions to treat various ailments, such as respiratory and digestive problems. Its bright flowers attract pollinators such as bees and birds, facilitating the pollination of other plants in its habitat. It also helps prevent soil erosion in mountainous areas and provides shelter and food for a variety of organisms. Its presence is an indicator of the health of the montane ecosystem. Reforestation, edible fruit.

Representation for the Pastos People: Flower of the moon, it invokes a connection to the feminine and foments health and harmony.

Zone: Chapal, San Mateo area



Apple or Moridera

NE

Pernettya prostrata (Cav.) DC.
Shrub

Uses: The fruit is edible in small quantities, as they have narcotic, hallucinogenic, and intoxicating properties. It is used to prepare coladas or fruity drinks in some parts of the mountains. The leaves are used as fodder for goats and sheep. The leaves are also used to make herbal tea as they help to treat kidney issues and eliminate toxins from the body.

Representation for the Pastos People: A sacred plant that represents respect, prudence, and tranquility. Medicine for the air spirits in small quantities.

Zone: Chapal, San Mateo area



Medicinal plants

Medicine, a part of the wisdom, knowledge, and practice of Indigenous peoples, goes beyond physical health; it is based on observation of and interaction with the territory, the natural environment, and the holistic relationship between beings. This allows us to use what is under our care rationally.

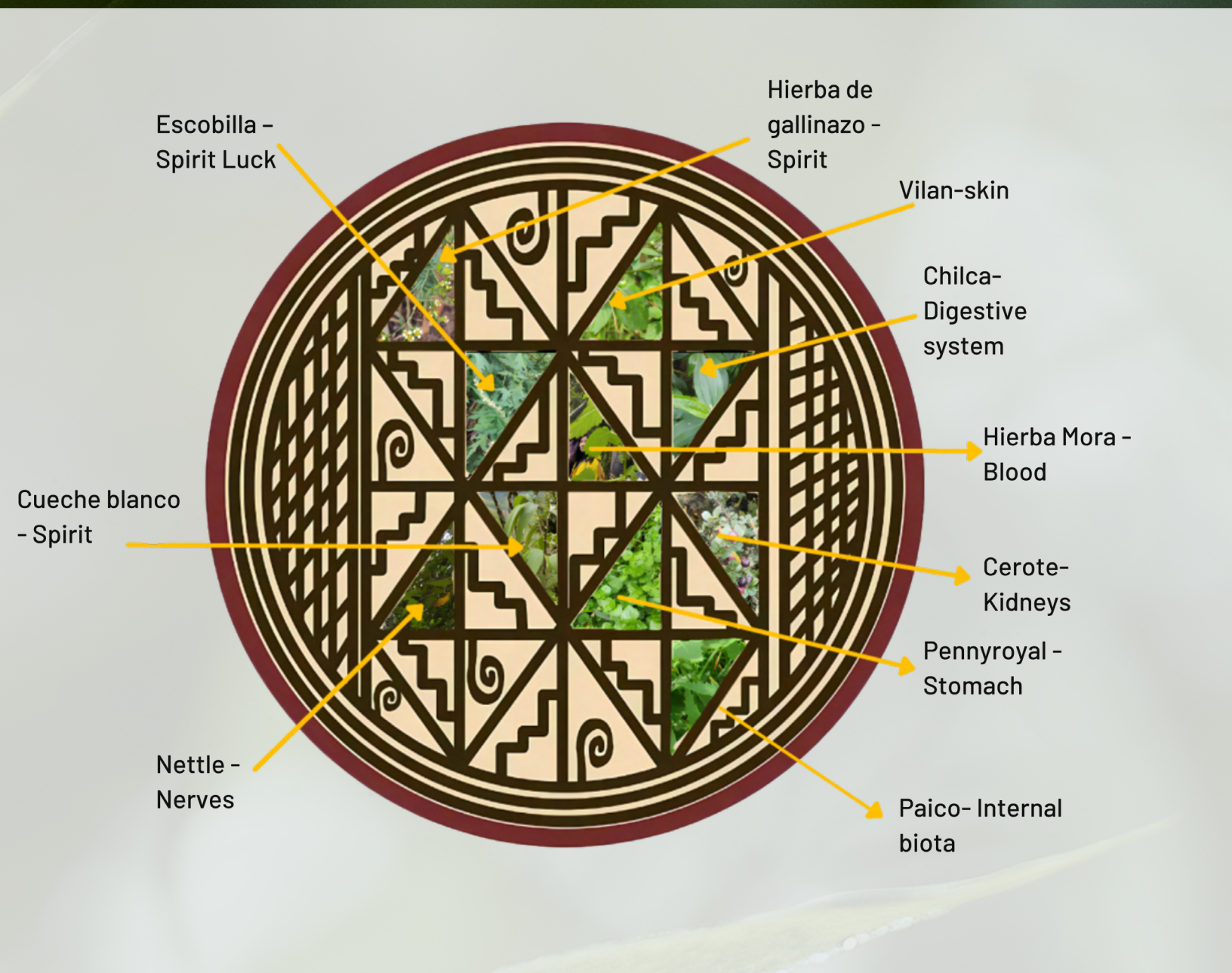
Medicine is fundamental to our identity. It is part of our collective memory, shared for thousands of years through an oral tradition that transmits knowledge about the plants, rituals, and healing that are essential to our survival. It is the medicine that connects us with our origin, showing us time and again the path, how fleeting we are, and the need to cleanse our body, mind, and spirit using the plants that surround us.

This category is linked to our body - territory.

Native medicine connects traditional knowledge and territory.

The physical environment influences our health, the territory conditions our habits, and the natural environment is connected to our mental health.

Pasto depiction: Cyclical chumbe weaving.



Escobilla -
Spirit Luck

Hierba de
gallinazo -
Spirit

Vilan-skin

Chilca-
Digestive
system

Hierba Mora -
Blood

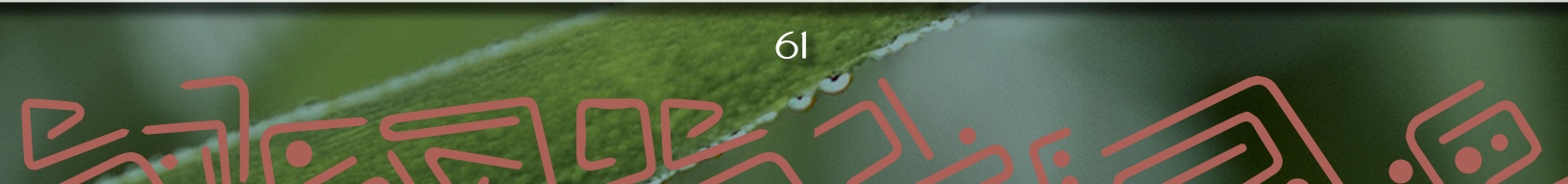
Cueche blanco
- Spirit

Cerote-
Kidneys

Pennyroyal -
Stomach

Nettle -
Nerves

Paico- Internal
biota





LC

Cerote

Hesperomeles obtusifolia (Pers.) Lindl.
Shrub

Uses: Has edible wild fruits that are used to make jams and other recipes. **Medicinal uses:** an infusion with the leaves or fruit is used to treat kidney problems, liver disorders, nerves, headaches, and stomach pain. Postpartum it is applied in baths. The wood is used to make plows, looms, furniture, and to build houses. The plant is boiled to dye clothing. It is used as an ornamental plant in hedges, as a living fence and frost barrier. In addition, as a livestock barrier and to protect springs and river banks.

Zone: Rosal and Esperanza.

Vilan*

NE

Monnina aestuans (L.f.) DC.
Arbusto

Uses: Medicinal: The leaves and roots are used in preparations to treat digestive disorders and skin problems and to cure cold sores. "Food of the Chiguaco."

Representation for the Pastos People: to control the body's internal fire.

Zone: Tescual, El Páramo township



*Common name in Qwastu language meaning: "Ibilan: a little water from the inside")



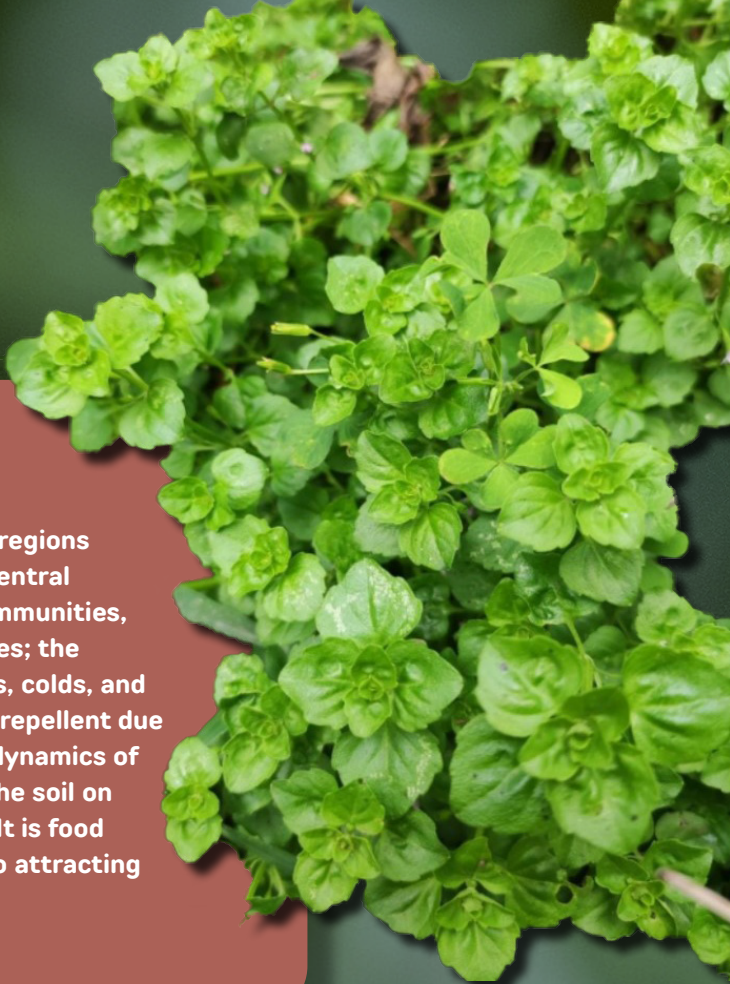
Pennyroyal

NE

Clinopodium brownei (Sw.) Kuntze
Herbaceous

Uses: Aromatic plant that grows in humid and tropical regions of the Americas, from the southern United States to Central America and parts of South America. In Indigenous communities, this plant is highly valued due to its medicinal properties; the leaves are used in infusions to treat digestive problems, colds, and respiratory ailments. It is also used as a natural insect repellent due to its strong aroma. Ecologically, it plays a role in the dynamics of aquatic and wetland ecosystems, helping to stabilize the soil on riverbanks and marshy areas, which prevents erosion. It is food and shelter for insects and small animals, in addition to attracting pollinators such as bees and butterflies.

Zone: Tescual, El Páramo township



Hierba mora or Nightshade

NE

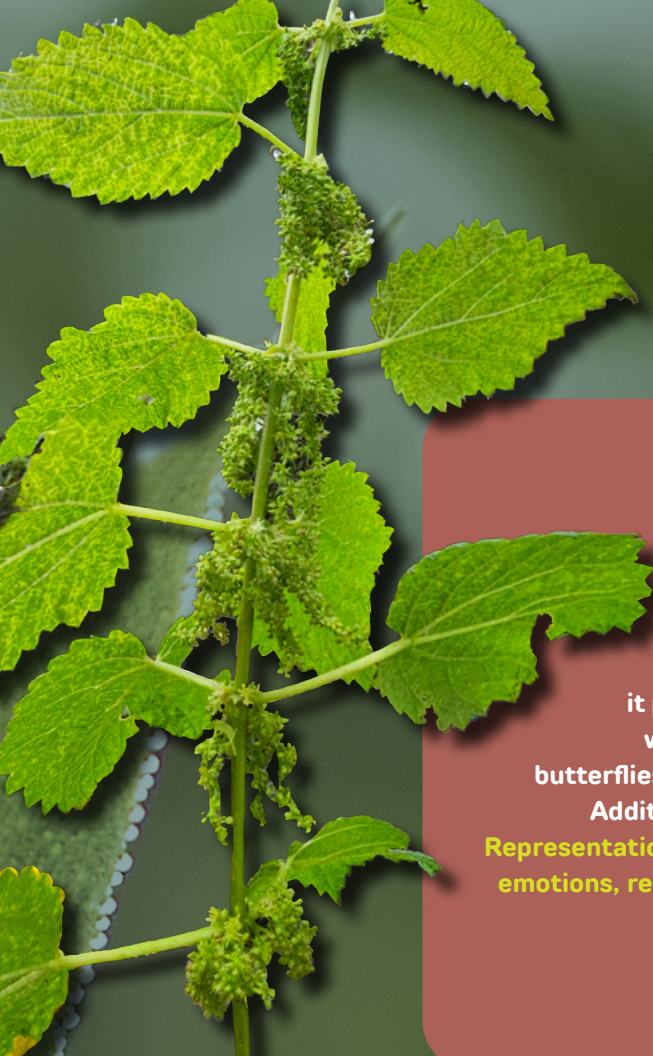
Solanum nigrescens M.Martens & Galeotti
Shrub

Uses: Grows in tropical and subtropical areas of the Americas. The leaves and fruit are used in traditional medicine due to their medicinal properties. Treats inflammation, wounds, and digestive problems in topical preparations and infusions. However, caution should be exercised with the unripe fruit, as it can be toxic if consumed in large quantities. The ripe fruit is eaten by various bird species, which in turn helps to disperse the seeds. It is also part of the underbrush in disturbed habitats, contributing to the natural regeneration of ecosystems.

Representation for the Pastos People: Sacred plant due to the balance of flavors. Body cleanser. Attracts prosperity and wealth.

Zone: Tescual, El Páramo township





Nettle

Urtica dioica L.
Shrub

Uses: Spiritual and for correction. For its medicinal properties, the leaves are used in infusions and poultices to treat conditions such as arthritis, urinary problems, and allergies. It is also rich in vitamins and minerals, which can make it useful as a food supplement. Ecologically, it plays an important role in the biodiversity of the ecosystems where it grows, providing food and shelter to insects, such as butterflies, and serving as habitat for birds that feed on these insects. Additionally, its roots help prevent soil erosion in disturbed areas.

Representation for the Pastos People: Sacred plant that teaches balanced emotions, respect, and generates harmony and balance. Associated with protection.

Zone: Tescual, El Páramo township

Cueche blanco



Bomarea sp
Shrub

Uses: Spiritual. The roots are used in infusions to treat respiratory and digestive ailments. Ecologically, these plants have a close relationship with pollinators, such as hummingbirds and insects, which are attracted by their showy flowers and assist in cross-pollination. It also plays a role in the biodiversity of the Andean underbrush, contributing to the ecological dynamics and providing refuge for various species.

Representation for the Pastos People: Sacred plant for releasing the water spirit.

Zone: Tescual, El Páramo township



Chilca o Chilque* NE

Baccharis latifolia Pers.
Herbaceous

Uses: Medicinal plant for stomach pain. Prepared by boiling with panela. Chilca is also used in traditional rituals and as a natural insect repellent. Ecologically, it is important to stabilize the soil on slopes and eroded areas, helping to prevent landslides and favoring ecosystem regeneration. Its flowers attract pollinators such as bees, contributing to local biodiversity. It also provides shelter for small animals and insects, acting as an integral part of the food web in its habitat. The leaves are used to clean or disinfect pork casings.

Representation for the Pastos People: Chilco female plant.
Zone: Alpichaque



*Common name in the Qwastu language meaning: "Chilca: grand sky")

NE

Wild Marigold

Tagetes minuta L.
Herbaceous

Uses: Attributed with medicinal properties as a digestive, carminative, and anti-abortive. An infusion made with its leaves is used to relieve gastric pain, and the decoction of its flowers and fresh leaves to relieve colds and bronchitis. An essential oil used in perfumery and aromatherapy is extracted from its leaves. In gastronomy, it is used as a condiment in sauces and traditional dishes, providing a distinctive flavor. It is also used as a natural insecticide due to its ability to repel crop pests.

Zone: Tescual, El Páramo township



Paico

NE

Dysphania ambrosioides (L.) Mosyakin & Clements
Herbaceous

Uses: This is an aromatic plant native to Central and South America, highly valued by Indigenous communities for its medicinal and culinary uses. Traditionally, its leaves have been used in infusions to treat intestinal parasites, digestive problems, and as an expectorant for respiratory conditions. In cooking, it is an important ingredient in typical dishes, providing a unique flavor and helping to reduce the gassy effects of digesting beans and other legumes. Ecologically, it is a hardy plant that grows in a wide variety of soils, even in disturbed conditions, helping to stabilize the soil and prevent erosion. Thanks to its aromatic properties, it also acts as a natural insect repellent in crops, making it an allied plant in sustainable agriculture.

Zone: Tescual, El Páramo township



NE

Escobilla

Ambrosia arborescens Mill.
Herbaceous

Uses: Body cleansing. Cleansing rituals.
Representation for the Pastos People: Sacred plant for spiritual balance, to avoid the effects of harmful spirits, and activate connection and respect for nature.
Zone: Chapal, San Mateo area.





Concluding Remarks

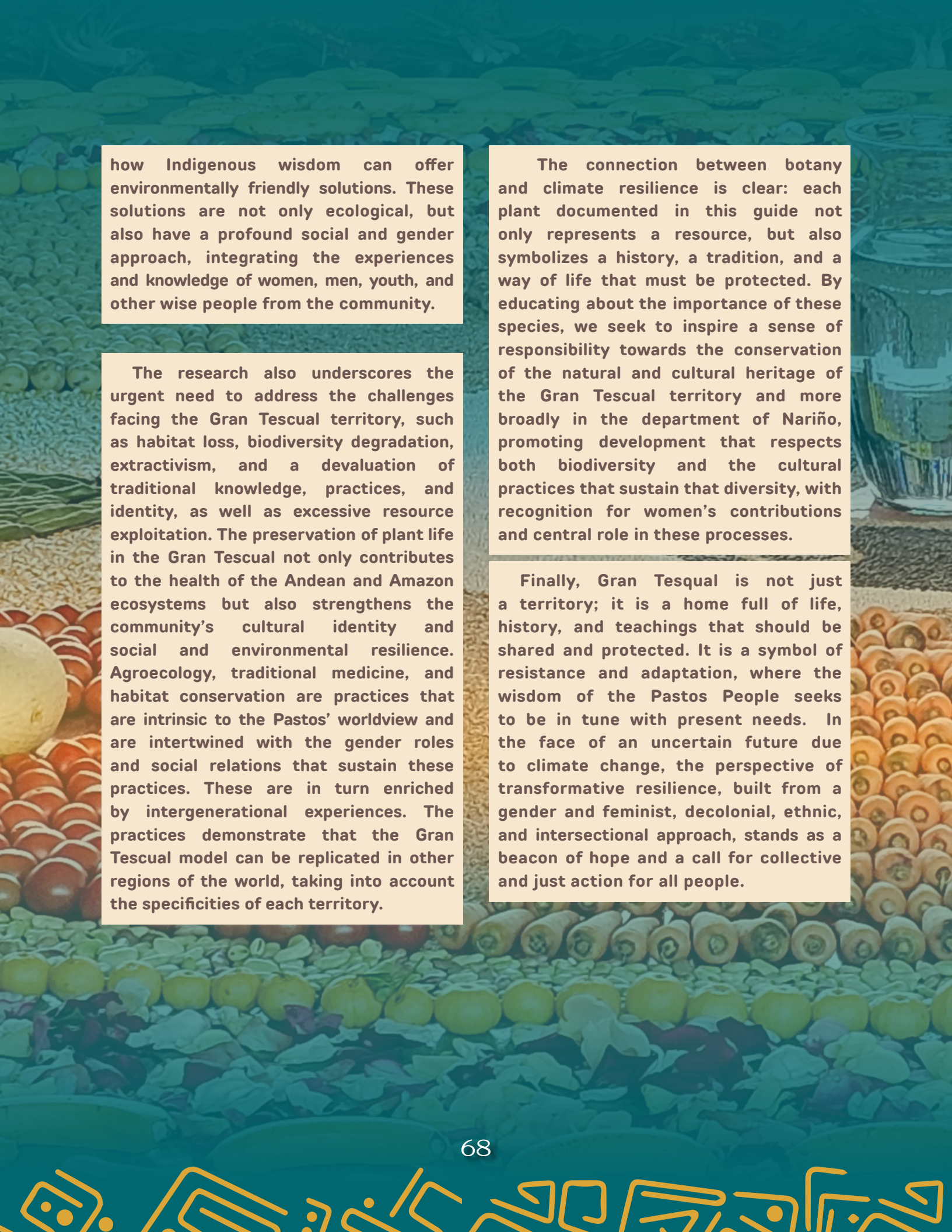
The Pan Amazon Gran Tescual Indigenous Reservation is a living testimony to the deep bond that the community has cultivated with its natural environment. The botanical wealth of this territory not only represents a unique biodiversity, but also an invaluable cultural heritage that reflects the ancestral wisdom of the Pastos People and their harmonious relationship with nature. This connection is collectively woven and sustained; the dynamic and transformative role of women is particularly noteworthy, as they have been the guardians of the botanical, medicinal, and spiritual knowledge transmitted over generations.

This guide has documented the main species ranging from ornamental plants and timber trees to edible species, and those of ecological, medicinal, and spiritual importance. Each plant included in the guide has an integral part in the Pastos People's worldview, highlighting the essential role the species play in the day-to-day life of the Gran Tescual community and in its ability to adapt to environmental challenges. This ancestral knowledge plays a crucial role in territorial resilience, revealing how sustainable-use practices with these plants have been a pillar of our response to the challenges of climate change. The knowledge of

those who live in Gran Tescual reflects a close and respectful connection with the environment, where sustainability and care are key aspects of our vision of the world.

It is important to understand that the Gran Tescual's climate adaptation and resilience have been collectively constructed with a gender approach. The women of Gran Tescual are protagonists and leaders in these processes, as they have traditionally cared for the land, transmitted knowledge about medicinal plants, and maintained sustainable agriculture through the chagras. Historically the women's contributions have been rendered invisible in conservation and land management narratives. However, Gran Tescual assumed the task of recognizing this role to advance towards transformative resilience with climate change adaptation.

In a global context marked by this phenomenon and unprecedented crisis, the native and endemic species of the Gran Tescual are living adaptations to the changing conditions of their environment. The selection of resistant varieties, sustainable agricultural and spiritual practices linked to land use—where women play a key role—demonstrates



how Indigenous wisdom can offer environmentally friendly solutions. These solutions are not only ecological, but also have a profound social and gender approach, integrating the experiences and knowledge of women, men, youth, and other wise people from the community.

The research also underscores the urgent need to address the challenges facing the Gran Tescual territory, such as habitat loss, biodiversity degradation, extractivism, and a devaluation of traditional knowledge, practices, and identity, as well as excessive resource exploitation. The preservation of plant life in the Gran Tescual not only contributes to the health of the Andean and Amazon ecosystems but also strengthens the community's cultural identity and social and environmental resilience. Agroecology, traditional medicine, and habitat conservation are practices that are intrinsic to the Pastos' worldview and are intertwined with the gender roles and social relations that sustain these practices. These are in turn enriched by intergenerational experiences. The practices demonstrate that the Gran Tescual model can be replicated in other regions of the world, taking into account the specificities of each territory.

The connection between botany and climate resilience is clear: each plant documented in this guide not only represents a resource, but also symbolizes a history, a tradition, and a way of life that must be protected. By educating about the importance of these species, we seek to inspire a sense of responsibility towards the conservation of the natural and cultural heritage of the Gran Tescual territory and more broadly in the department of Nariño, promoting development that respects both biodiversity and the cultural practices that sustain that diversity, with recognition for women's contributions and central role in these processes.

Finally, Gran Tesqual is not just a territory; it is a home full of life, history, and teachings that should be shared and protected. It is a symbol of resistance and adaptation, where the wisdom of the Pastos People seeks to be in tune with present needs. In the face of an uncertain future due to climate change, the perspective of transformative resilience, built from a gender and feminist, decolonial, ethnic, and intersectional approach, stands as a beacon of hope and a call for collective and just action for all people.

Appendix

COMMON NAMES ACCORDING TO THE REGIONS WHERE THEY GROW IN COLOMBIA.

- ***Axinaea macrophylla*: Amarillo**
Antioquia: Tuno rojo o Tuno rojo
Cundinamarca: Tunorroso
Cauca: Mendis
Andes: Danto blanco
Cauca: Manzanillo
Andes: Nigüito danto
- ***Palicourea amethystina*: Majua**
Andes: Cafeto de monte
- ***Peperomia galioides*: Congona o Verdolaquillas**
Nariño, Putumayo: Cuyanguilla
Cundinamarca: Canelón
- ***Oreopanax ecuadorensis*: Pumamaque**
Carchi Ecuador: Pumamaqui
- ***Orthrosanthus chimboracensis*: Pirchilan**
Boyacá, Cauca, Cundinamarca, Nariño: Esterilla
Boyacá, Cundinamarca: Esterillo, estrellita, paja garnona, fibra de María
Cundinamarca: Espadilla
Cundinamarca: Escobo
Cundinamarca: Lirio de páramo
Magdalena, Sierra Nevada de Santa Marta: raíz de cepillos, amargoso, aneiba
- ***Chaetogastra mollis*: Mayo**
Región andina: Flor de mayo
Ecuador y Perú: Pucasacho
- ***Ceroxylon quindiuense*: Palma real**
Meta, Quindío, Tolima, Valle, Andes: Palma de cera
Meta: Palma de ramo
Antioquia: Chonta
- ***Weinmannia fagaroides*: Encenillo**
Cauca: encenillo crespo
Boyacá, Cundinamarca: encenillo
- ***Weinmannia balbisiana*: Encenillo**
Antioquia, Cundinamarca, Nariño: encenillo
Nariño: encino
- ***Cedrela montana*: Cedro maderable**
Cundinamarca, Nariño: cedro
Cundinamarca, Norte de Santander: cedro colorado
Valle del río Magdalena: Cedro mondé
Valle: cedro rosado
Cundinamarca: cedro cebolla, cedro oloroso, cedro dulce
Valle: cedro cebollo
Antioquia, Meta: cedro clavel, cedro de montaña
Antioquia: cedro de tierra fría
Caldas: Monde, munde, serrano

- ***Clusia multiflora*: Cuandera**
Cundinamarca, Santander, Andes: gaque
Antioquia: chagualo
Caldas, Cundinamarca: cucharo
Cundinamarca: caucho, sape, tapas
Nariño: caucho gaque, imparmo, incienso, manduro
Norte de Santander: tampaco
- ***Myrsine dependens*: Cucharo**
Boyacá, Cauca, Cundinamarca: cucharo
Cundinamarca: maiztostao, arrayán, cucharillo
maíz tostado
Santander: maíz tostado
Valle: espadero
- ***Freziera canescens*: Capulicilla**
Nariño: motilón
Cauca: cerezo de monte
Cauca: capulicillo
- ***Motilón: Hieronyma macrocarpa***
Cauca: motilón colorado
Nariño: motilón dulce
Tolima, Valle, Andes: candelo
Boyacá, Caldas, Cundinamarca: chuguacá
Cundinamarca: chuguacá hojiancho
Santander, Andes: colorado
Cauca: mulato, mulatón
Cauca, Nariño: pantano
Magdalena: arenillo
Caquetá, Cauca, Andes: granadillo
- ***Uvilla: Physalis peruviana***
Generalizado: uchuva
Cundinamarca: uchuvo
Cauca, Huila, Nariño, Andes: uvilla
Nariño: uvilla buchona
Caldas: ochuva

Huila, Tolima: vejigón
Boyacá, Santander: chamico, guchuvo,
Cundinamarca: hierbabuena
Magdalena: tomate

- ***Xanthosoma sagittifolium*: Bore**
Amazonas, Antioquia, Boyacá, Caldas, Meta, Norte de Santander, Putumayo, Santander, Tolima, Andes: bore

Amazonas, Antioquia, Bolívar, Caldas, Caquetá, Cauca, Cesar, Córdoba, Huila, Quindío, Risaralda, Santander, Sucre, Tolima, Valle: mafafa
Antioquia, Chocó, Darién: otó
Amazonas: yota

Antioquia, Caldas, Cauca, Chocó, Nariño, Norte de Santander, Risaralda, Valle, Andes: rascadera

Arauca, Norte de Santander: ocumo
Cauca: alín
Cesar, Norte de Santander, mija
Boyacá, Cundinamarca, Tolima: malangay
Córdoba: mafafa blanca
Cesar: mafafa mija
Caquetá: mafafa pata de gallineta
Córdoba: mafafa morada
Amazonas: yota de picón, batata, yota de sapito
Amazonas: yota de sol
Amazonas: yotica
Cauca: rascadera morada, rascadera rosada
Cauca: rascadera negra
Chocó: chunga, malanga
Amazonas: nipachire



- **Cucurbita maxima: Zapallo**

Amazonas, Antioquia, Arauca,
Atlántico, Bolívar, Boyacá, Caldas,
Caquetá, Casanare, Cauca, Cesar,
Córdoba, Cundinamarca, La Guajira,
Huila, Magdalena, Meta, Nariño, Norte
de Santander, Putumayo, Quindío,
Risaralda, Santander, Sucre, Tolima,
Valle: ahuyama
Amazonas, Antioquia, Arauca,
Atlántico, Bolívar, Boyacá, Caldas,
Caquetá, Casanare, Cauca, Cesar,
Córdoba, Cundinamarca, La Guajira,
Huila, Magdalena, Meta, Nariño, Norte
de Santander, Putumayo, Quindío,
Risaralda, Santander, Sucre, Tolima,
Valle: auyama
Amazonas, Antioquia, Cauca, Chocó,
Huila, Nariño, Putumayo, Tolima, Valle:
zapallo: huyama
Bolívar, Norte de Santander, Tolima:
uyama
Bolívar, Norte de Santander, Tolima:
ahuyama burrera
Antioquia, Tolima: ahuyama candelaria
Antioquia, Tolima: auyama candelaria
Bolívar: ahuyama cintura
Cundinamarca: ahuyama peruana
Santander: auyama blanca
Sucre: auyama caturra
Antioquia: auyama común
Santander: auyama corazón de res
Santander: auyama lagartija
Boyacá: auyama pirul
Boyacá: auyama poteca
Caldas, Risaralda: uyamera
Valle: zapallera

- **Canna indica: Achira**

Amazonas, Antioquia, Boyacá, Caldas,
Caquetá, Cauca, Chocó, Cundinamarca,
Huila, Meta, Nariño, Putumayo, Tolima,
Valle, Andes, Pacífico: achira
Antioquia, Arauca, Atlántico,
Bolívar, Casanare, Cesar, Córdoba,
Cundinamarca, La Guajira, Magdalena,
Santander, Llanura del Caribe: capacho
Boyacá, Cundinamarca, Huila, Tolima,
Andes: chisgua
Boyacá: rigua
Boyacá: risgua
Cundinamarca, Meta, Huila, Tolima: sagú
Chocó, Nariño, Norte de Santander,
Valle: bandera
Antioquia, Cundinamarca, Nariño,
Norte de Santander: pabellón
Boyacá, Norte de Santander: raíz
Boyacá: rea
Caldas: achila
Amazonas, Quindío: achira blanca
Huila: achira bugueña
Cundinamarca, Tolima: achira colorada
Huila: achira criolla
Caquetá, Quindío: achira morada
Huila: achira natagueña
Amazonas: achira oscura
Meta: achira roja
Amazonas, Caquetá: achira verde
Antioquia, Cauca, Nariño, Quindío,
Tolima: achirilla
Caldas: chirilla
Magdalena: capacho de monte
Andes: rijua
Boyacá: brigua
Cundinamarca: sagú blanco
Antioquia, Cundinamarca, Tolima:
corbata de Gaitán
Santander: espada de Bolívar



- ***Vasconcellea pubescens*: Chilacuan**
 Nariño, Putumayo: chilacuán
 Nariño, Putumayo: chilguacán
 Cundinamarca, Horticultura: papayuela
 Cauca, Boyacá, Cundinamarca, Huila, Norte de Santander: papayuelo
 Cauca: higuillo
 Antioquia: tapaculo
 papaya de olor
 papaya de tierra fría
 papayuela maligna
 tapacú
- ***Hesperomeles ferruginea*: Cerote**
 Boyacá, Cundinamarca, Santander, Andes: mortíño
 Cauca, Huila: cerote
 Valle, Andes: noro
 Cauca, Valle: guayabo de páramo
 Cauca, Santander: manzano
- ***Meriania splendens*: Carbunquillo**
 Nariño: amarrabollo
 Nariño: carbunquillo
 Cauca: maya
 Nariño: carbonero
 garbunquillo
- ***Ambrosia arborescens*: Escobilla**
 Boyacá, Caldas, Cundinamarca, Nariño: altamisa
 Cauca: artamisa
 Boyacá: altamisa grande
 Nariño: marco
- ***Tagetes minuta*: Hierba de gallinazo**
 Caldas: ruda gallinaza



Notas

Handwriting practice lines consisting of 20 horizontal dotted lines.



Notas

Handwriting practice lines consisting of 20 horizontal rows. Each row is composed of three dotted lines: a top line, a middle line, and a bottom line, providing a guide for letter height and placement.

