

# Mythical Plants of the Huaringas – Huancabamba (Perú) And its Data Analytics

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## ABSTRACT

The purpose of this article was to explain the behavior of the mythical plants of El Faique in Huancabamba (Huaringas, Perú). The aim was to determine how mythical and medicinal plants in Andean-Amazonian communities are used in healing and how they are linked to health and healing in the human beings of these peoples. The research was interdisciplinary in nature and combined contributions from literature, philosophy, history, anthropology, traditional medicine, and data analysis. The study considered three plants: shimir (Culle language), ñangay (Quechua language), and faique (Mochica or Yunga language). The results show that there are three indigenous languages in the mountains of Piura (Huancabamba) that preserve pre-Hispanic plants as myths and cures in the health of the communities. It is concluded that traditional plants remain relevant both in mythical narratives and in current cures.

**Keywords:** Mythical plants, oral narrative, data analysis, healing plants, Huaringas

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## INTRODUCTION

The Andean communities of northern Peru, residing in Huancabamba-Piura, have treated various ailments and diseases for generations using medicinal and mythical plants, which play an important role in cultural traditions and beliefs. As a result, Peru has diverse geographies, languages, and cultures on the coast, in the mountains, and in the Amazon. For the scientific community, this leads us to serious and relevant research into the great encounters and discoveries of a country with a great future. We are touching on a new and old face of ancient Peru that continues to make us reflect and see its thematic characteristics very present in recent times in human civilization. The Huaringas, located in the province of Huancabamba, in the Piura region of Peru, are a group of sacred lakes and mountains known for their mysticism and rich biodiversity. This place is recognized as one of the most important centers of healing in the Andes, where ancestral rituals are performed using mythical plants for healing and spiritual connection.

Among the most revered plants in the Huaringas are San Pedro (*Echinopsis pachanoi*), Ayahuasca (*Banisteriopsis caapi*), and other endemic species that form an integral part of the ceremonies and practices of local healers. These plants not only have deep spiritual significance, but also possess medicinal properties that have been used by local communities for centuries. The study focuses on the collection and analysis of data related to these mythical and medicinal plants shimir (Culle language), ñangay (Quechua language), and faique (Mochica or Yunga language) in order to identify patterns of use, reported effects, and the relationship between traditional practices and modern scientific knowledge. And with this, to show a comprehensive vision that combines ancestral wisdom with modern medicine and ethnobotany.

The importance of this study lies in the preservation of traditional knowledge and the possibility of discovering new medicinal applications from three mythical plants (El Faique, Ñangay, and Shimir) from the Huaringas. Likewise, data analysis will allow for a better understanding of how these practices have endured and evolved over time, adapting to the changing needs and contexts of society. In this context, the research will not only contribute to scientific knowledge, but also to the appreciation and respect for the identity of the peoples and their ancestral practices, promoting an intercultural dialogue that recognizes the richness and complexity of the healing traditions of Huancabamba. Undoubtedly, there is a rationality specific to the subjects of each place, because they are driven by another logic, another *raison d'être*, another worldview as they learned it from their ancestors. This is a generous legacy that is needed in these turbulent times of strange ideologies, which confuse us and prevent us from appreciating

ourselves. That is why we say that there is no homogeneity, but rather diversity, even in the ways we live and reason; all human beings are different.

Much of this legacy is rooted in our childhood education, which is why we can attest to the existence of mythical plants. Of course, they have always played a decisive role in traditional medicine and are part of the diet of communities that have known them since time immemorial, as Ramírez (1966) points out in a detailed description that seems to have been written specifically for this work. Another exposition is found in Cabieses (1993), with a comprehensive study of the thematic production on the subject in question in Peru, which also proposes an alternative rationality to the hegemonic one imposed by Western science.

In this way, the research seeks to have an impact on the academic community linked to literature, anthropology, history, and linguistics. To explain the behavior of the mythical plants of El Faique in Huancabamba (Huarinas-Peru) through data analysis.

## LITERATURE REVIEW

In his work, Camino (1992) took a break from his research to travel around the territory in question to write his book *Cerros, plantas y lagunas poderosas. La medicina al Norte del Perú (Mountains, Plants, and Powerful Lagoons: Medicine in Northern Peru)*. This book appeals to us not only because of the photographs he took of the place at that time, but also because of his in-depth scientific and academic study. Another essential reference that looks at the historical aspect is Hocquenghem (1989), a study that places the cultural process of the subjects of the Sierra Piurana in their cultural evolution. In *Los Guayacundos de Caxas y la sierra piurana Siglos XV y XVI (The Guayacundos of Caxas and the Sierra Piurana in the 15th and 16th Centuries)*, he puts the historical process of these cultures that still survive in order.

To see the mythical aspect, one of the most specific and precise references that has addressed this aspect is Camino (1942) in his novel *El daño*. This shows the customs of the people of Lambayeque, where there is a healing and mystical tradition that dates back to pre-Hispanic times. It is necessary to turn to literature, because in this fictional space, certain phenomena that have occurred can be interpreted. We are certain that literature is not a carbon copy or replica of reality. Nor is it lies or fantasy. As fiction, it is a recreation of reality. Training as writers does not oblige us to make this statement, Bruning (2004).

We also have mythical narratives such as *Camino a las Huarinas* by Arrieta (1993), who recreated events related to mythical plants. The same author constructed and shaped a trilogy in which he develops this theme, completing the saga with *En el Reino de los Guayacundos* (2003) and *El jardín de los encantos* (2008), speaks *El gran Sinonés* (2009), all in a feast of a millennial celebration: myth and ritual ceremonies that explore this way of understanding the world, which remains valid today.

For Mompó (2022), it is important to analyze, visualize, and create predictive models using data analytics for plant processing, using a data analytics approach for crop, pest, and quality control.

According to Gallegos (2017), medicinal plants in rural Andean areas are important in the absence of formal medicine for the treatment of diseases, requiring medical assistance in more critical cases.

The manifestations of mythical plants in El Faique-Huancabamba were studied, and they have determined the identity of the communities, Ramírez (1966). In this sense, there has been a wealth of expressive morphological and healing characteristics that formed part of the ancestral legacy and wisdom of the men who populated this Peruvian nation. These have served as a framework for an approach to mythical plants. On the other hand, the research has contributed to understanding the function of mythical plants, whose analysis has decisively determined the pattern of growth and behavior in the realization and interpretation. Similarly, the work has allowed for a closer look at the system of mythical plants in the development and communicative practices of the beings that have populated this Peruvian territory, in the philosophical, mythical, and religious thought that underlies pre-Hispanic Andean discourses. The importance of the research lies in the fact that the work has enabled the recovery of the ancestral legacy, in particular, of mythical plants as supports for fixing information, which were present in the founding narratives and myths and which converge in pre-Hispanic communicative practices. The publication of the research results will strengthen these studies and open new avenues for future research into the behavior of plants, their characteristics, as well as their healing and nutritional properties. Finally, the purpose of the research was to explain the behavior of the mythical plants of El Faique in Huancabamba (Huarinas, Peru) and to analyze the data.

## METHODS

The research was interdisciplinary in nature and combined contributions from literature, philosophy, history, anthropology, traditional medicine, and data analysis. The field study was conducted in the district of El Faique, in the province of Huancabamba, Piura region. Year 2024.

### The Sample

The research sample consisted of a representative selection of mythical plants and pre-Hispanic Andean pharmacopoeia, which has been linked to the communicative practices of the ancient peoples of Peru: Shimir, Ñangay, and Faique. A survey was conducted of 250 residents over the age of 18 who prefer to heal themselves with plants (150 men and 100 women) on their preferences for plants, as shown in Figure 4. The instrument was a questionnaire on the use of plants, the objective of which was to gather the opinions of people in the community.

### Procedure

- a) A systematic review of the literature on mythical plants and their survival over time and conservation in the Andean Amazonian environment was carried out.
- b) For the selection of plants, ethnolinguistic aspects were taken into account, considering the linguistic definitions Shimir (Culle language), ñangay (Quechua language), and faique (Mochica or Yunga language).
- c) For the recognition of the characteristics and local behavior of plants, tropism, morphological characteristics, and the curative and food parts (for data analysis using the APPs plantsnap / Picture tools) and to explore and analyze data containing qualitative information that allows us to order, relate, summarize, and visualize information (NVivo).

## RESULTS

### 1. The shimir

is a word from the Culle language, whose narrative abounds with stories about the places where they grow and serve to protect against theft and robbery, made with "malevolent compacts," according to local healers. Such are the records of the oral tradition narrative: "Another malevolent plant is the shimir; they also used to have it. If anyone had it today, they would be punished. The shimir is similar to an orange tree, it is large, immense, some cut it down to use as firewood. It was said that anyone who passed by it would spit, and it was known to cause rashes on the neck" (Arrieta 1993, p. 139). Its fruits, which perceive the energy of a human being, generate a reaction: its resin had to be spat out because it infects the skin. Hives appear, scabies that even medical prescriptions cannot alleviate or cure. Currently, communities no longer cultivate it, meaning it is becoming extinct: few survive. According to old myths, healing from this disease caused by the secretions of this plant occurs through urination. Therefore, there are many stories surrounding this plant due to its tropism sensations and process. The uses, according to the beliefs and customs of the Andean communities where this magical plant grew, continue to provide its benefits: caring for the fields and protecting the crops from thieves, as shown in Figure 1.

Shimir have tropism reactions, a behavior that occurs when they perceive an energy influence that causes irritability. This phenomenon is called haptotropism or thigmotropism, "which are very rapid reactions caused by contact with an external agent" (Rojas 1999, p. 40). The plant perceives human energy, which explains these phenomena and not what mythical stories have told us, but, understandably, tradition prefers to stay away from the plant; they do not approach it because of its reactions to perceiving a foreign agent as an aggression to its cellular universe. It does the same with reptiles or any animal that tries to approach it. The reactions of these plants are feared, so much so that dogs only bark at them from a considerable distance, as if they were seeing ghosts. They do not see them, but they perceive their smell and the discomfort it causes in their bodies.

**Figure 1** Mythical shimir plant



Note: Endangered plant – photograph taken at its place of origin.

2.- **The ñangay:** a mythical plant in danger of extinction. Name of a hamlet in the district of San Miguel de El Faique. Never studied, rather forgotten, planted on the edges of roads, so visible to the naked eye. Therefore, green flowers in the morning, green-yellow at 12 o'clock noon. Meanwhile, at 6 pm it turns a dark color. It was used to measure time, the clock tree for mule drivers and walkers. Its inhabitants argue when we talk to them. It is a Quechua word. Only a few old inhabitants tell the reason for its existence, characters in Arrieta's novel (1993), which recreated in a fictional narrative Camino a las Huaranga, references made by the ancients to see the passing of time. A function to record and detect the moment they were in, nothing more than whether it was late or early to locate themselves. It must be remembered that fiction is literature and is not a carbon copy of reality, nor is it fantasy or lies. So what is it? A recreation of reality, literary fiction itself. A plant considered to be the timekeeper of old mule drivers, which, due to its virtues, such as the scent of its flowers, gave rise to the name of a town. As can be seen in Figure 2.

Therefore, at Ñangay, a Quechua word, we prefer the meaning it has in this place. There is a tropism due to the colors of the sun falling on the plant. The sun reflects off the plants, and that light information causes changes in the color of their flowers. According to Rojas (1999), the natural phenomenon of plants, known as irritability, is a “basic capacity of living matter to obtain information from the outside world,” as the flowers change color throughout the day. It is also a tree that influences health and distraction, as its flowers are pleasant and smell like French Chanel 5 perfume, sweet and pleasant. It does no harm, but rather transmits peace and tranquility. When it is the middle of winter, there is no change in the colors of its flowers; they remain a single color. These plants contribute to the health of these communities, as their flowers, apart from marking the time, impose a great deal of tranquility, peace, and calm.

**Figure 2** Mythical Ñangay plant



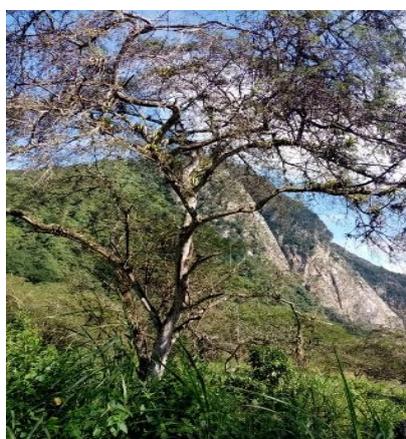
Note: Endangered plant – photograph taken at its place of origin.

3. **El Faique** is a town that has been a district for 60 years. It is also the name of a plant whose flowers and fragrance invited travelers and mule drivers climbing up to Huancabamba, as well as those

descending, to rest. Thus, they called it “the tree that induces sleep.” The flowers of the faique “lulled us to sleep while we rested.” Thus, a town was born around a plant that, according to its inhabitants, had a relaxing effect. In this context, stories grew up around the tree and also around the origin of a town that became the Andean district of Huancabamba. It possesses the phenomenon of tropism, and we are told that the perfume, the fragrance of the flowers, heals us because it relaxes us from the stress and fatigue that we humans experience. In ancient times, it was the travelers or mule drivers who discovered its benefits, as shown in Figure 3.

**The faique** is a plant that means “that lies to us in our dreams.” The scent of its flowers makes us dream and serves as a relaxant to help us rest. Its flowers are good for our health, as they relax our bodies (they are nature's dream-inducing sleeping pills). For this reason, the ancient mule drivers who arrived preferred to rest under the leafy tree after long walks. We would contextualize it as a tree with medicinal properties: relaxing, helping to induce sleep. In this same sense, it not only heals stress, but also the soul. In other words, it brings peace and harmony to your life. It also, of course, benefits the body. Abundant in the El Faique district, it reproduces naturally, its seeds carried by the wind and its scent perfuming the air.

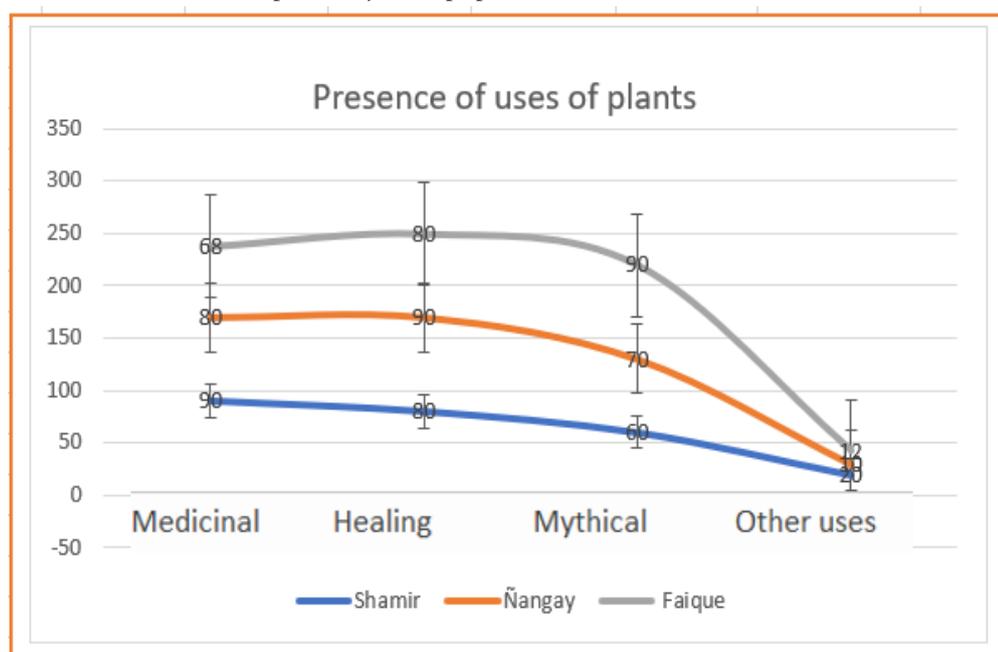
**Figure 3** Mythical El Faique plant



Note: Endangered plant - photograph taken at its place of origin.

With regard to the community's preferences for plants, Figure 4 shows that, out of a total of 250 respondents, we can say that they have a preference for El Faique as one of the healing and mythical plants recognized by their ancestors, hence the mythical name of the El Faique District.

**Figure 4** Preferences for the use of plants by local populations



Note: Medicinal plants as a healing agent and mythical plants for relaxation.

### Data análisis

The characteristics of mythical and medicinal plants have been extracted through the use of mobile technologies and the Plantsnap/Picture This apps to obtain the relevant information, as shown in the following tables: Table 1.

Characteristics of mythical plants

Shimir	
Colors	green, yellow, dark
Actions	as protection
Reaction	Senses the energy of the living being
Size	3 – 10 meters
Type of plant	tree: native
Flowering	perennial
Genus	plumeria
Family	phylum plantae
Class	magnoliopsida
Temperature conditions	35 to 40 degrees Celsius
Associated Myth:	Malevolent toward living beings

Ñangay	
Colors	Yellow, dark green, dark
Actions	Relaxing through its fragrance
Reaction	Senses the energy of the living being
Size	3 – 10 meters
Type of plant	tree-shrub
Flowering	perennial
Genus	plumeria
Family	apocynaceas
Class	magnoliopsida
Temperature conditions	33 to 39 degrees Celsius
Associated Myth:	fragrance for people

a) Shimir

b) Ñangay

El Faique	
Colors	Yellow, dark green
Actions	Relaxing through perfume
Reaction	Perceive the energy of the sun
Size	6 – 10 meters
Type of plant	thorny tree
Flowering	perennial
Genus	cedrus
Family	pinaceae
Class	pinopsida
Temperature conditions	33 to 40 degrees Celsius
Associated Myth:	Spiritual journeys

c) El Faique

Note: a) it has tropism reactions, b) the plant is considered a timekeeper by old mule drivers, and c) the tree causes drowsiness.

### DISCUSSION

First, we must bring the presence of Western culture into the discussion. Has it been positive or negative? Of course, the loss of knowledge is very unfortunate. Today, when ecology seems to be in vogue, we must look back to Andean cultures in terms of their ecological coexistence, which was also their way of life, their daily life. In other words, they perpetuated their harmony with nature. That is why we reaffirm that allowing indigenous languages to become extinct has been the worst mistake we have made in Peru, and paradoxically perpetrated by official education. Therefore, the future project is to seek to rescue them. This mission remains to be accomplished by academia. Undoubtedly, these plants have a significant impact on both spiritual and biological health. so data analysis clarifies that these plants undergo a biochemical process called tropism, specifically irritability, which “consists of the reactions of certain specialized cells that accelerate or slow down some biochemical processes as a result of certain physical changes in the environment that act as stimulants” (Rojas 1999, p. 39). Do we believe that everything argued by the mythical narrative has no basis in reality? Should we consider these scientific arguments in order to take them into account? On the other hand, let us consider the tradition as an order of belief of the most original Andean communities we have in the Piura highlands, as proposed in the mythical narratives.

Of course, it has to do with health: are there any plants used as dream therapy, such as faique and ñangay? Should their extinction be prevented because they are disappearing, and should there be constant study of this type of plant? In some way, health is the first thing to consider. Therefore, their mythical narratives, like data analysis, guide us toward health with a better explanation of these phenomena or events. Of course, these plants have an impact on the healing of the peoples of this community in the Piura highlands of Peru.

## CONCLUSIONS

1. Tradition (beliefs and customs) must be taken into account, because peoples have their old narratives in which they have symbolized their experiences in myths, stories, and the accounts of their dreams in which they believed.
2. Health was there, in the stories about plants that sometimes proposed dream therapy to prevent fatigue in the ancient mule drivers and walkers. Therefore, learning from this seems to us to be an urgent necessity in these times in which we live in other hustles and bustles that our life gives us: we are modern mule drivers imposed on us by the destiny of this universe.
3. Both proposals, therefore, are valid to take into account: the tradition that recounts mythical narratives (oral tradition discourses) are the messages left to us by ancestral cultures. And our data analysis, which has configured what science says about the characteristics and behavior of mythical plants.

## RECOMMENDATIONS

1. The first aspect is the recommendation that should be given to these communities to urgently prevent the extinction of these plants for the sake of health and ecology, well-being, and the conservation of humanity.
2. Recommend, from academia (universities), the promotion of research that calls for the use of relevant data analytics in scientific research that better explores reality and our cultures.
3. It is urgent to compile oral tradition, as it preserves part of the worldview of the ancient inhabitants of this region. With sinister forgetfulness, such valuable information disappears.

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