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# Ecology as Cosmology: Animal Myths of Amazonia

*Alexandre Guida Navarro*

## Abstract

Amazonian ethnography is relied on the creation of the world by Animals as the Anaconda, considered an ancestral creator. The history that myths tell is that the Amazon River is the metaphor of an Anaconda because it has meanders like this snake and it is a large reptile-like the river itself. As far as Archaeology, many of these myths were represented in archaeological ceramic as Cosmology metaphor. Some animals like birds were presented as a ceramic rattle which noise is a shamanic trait of Amazonian Indian Cosmology. This chapter shows how the Stilt Villagers of the Eastern Amazonian built their Cosmology based on the Animals of their environment's Ecology.

**Keywords:** cosmology, ecology, prehistoric art, stilt villages, Amazon

## 1. Introduction: myths and animals

Myths provide cultural explanations for understanding the world. It contains creation stories and explains all the elements necessary to understand the universe [1]. They are memory, a vehicle of cosmological message and identity [2]. In Amazon, the myths rely on the animal metaphor as the social component of the cosmology [3]. As far as Archaeology, the myth usually is represented in the ceramic support as Art.

Many archaeologists think that the art should be understood within a much broader semantic significance: (a) artistic manifestations, functioning as symbolism; (b) cosmological message vehicles serving to communicate social, political and religious values of a certain society; (c) or art to be on its own, as a social cohesion form or political control strategy, to demonstrate these same values to other peoples, as a form of ethnic identity [4].

Artistic manifestations filled the precolonial Amazon and invited the archaeologists to study these themes [5]. However, it is still difficult to define the diverse variations of the art types of these societies, partly because there is no conceptual standardisation [6], or partly as the variability is not fully known, yet, due to the complexity and enormous size of the precolonial Amazon [7].

However, many important paths have already been walked. Among the theoretical assumptions about art that found greater development in Amazon is the structuralist school and its variations, mainly through the works of Lévi-Strauss who regarded the art as an expression of communication and sociability [8]. Gell [9] saw the artefacts as social and non-static agents, which highlighted the activities they were involved, such as rituals. In those magic gives a more pronounced property to the objects, what the author called incantation technologies. To understand the

indigenous art the Amerindian Perspectivism [10], also under structuralist influence, has been used successfully, especially making the shamanistic relationships between men and animals more noticeable.

## **2. The stilt houses of eastern Amazon**

Having presented above the definition of art and studies in the Amazon, this text addresses the art in the Brazilian precolonial stilt villages of eastern Amazon societies, temporally between the 8th to the 10th A.D., thus, they no longer existed during the period of European conquest in the 16th century.

The stilt villages were ancient dwellings (palafittes) built on piles over a lake. Stumps or trunks of trees served as a support for the superior buildings of the



**Figure 1.**  
*Map of the stilt villages in eastern Amazon and apparent stilts at the time of the drought. Photography: Alexandre Navarro.*

villages [11]. Traces of these wooden stilts are located within rivers and lakes and are shown only at the time of drought. This normally corresponds annually to October to December [12]. Rest of the year, the palafittes are submerged. In some of these prehistoric sites, such as Coqueiro, there can be over three thousand stilts [13]. This type of archaeological sites has been described in isolated cases in South America, namely in the reports of Amerigo Vespucci in 1499 on communities that lived in Stilt Houses on the Venezuelan coast. The stilt villages also appear in the reports of Amazon river mouth and from the Upper Amazon, near Peru [14]. However, as known today, the prehistoric palafittes of Maranhão are the only ones preserved, in the entire American continent (**Figure 1**). The ancient stilt villages have been also common in the prehistory of Europe during the Neolithic age, for instance in northern Italy and Switzerland (Lake Constanza).

In the Amazonian eastern coast, the geographical area where the Stilt Houses are located is called Baixada Maranhense, in the State of Maranhão, Brazil. This region comprises approximately an area of 20,000 km<sup>2</sup> within the legal Amazon and has more than 500,000 inhabitants. People are very poor, with the lowest HDI indices not only in Maranhão state but also in Brazil as a whole. Baixada Maranhense population lives from the subsistence of traditional agriculture, fishing, keeping small animals and growing vegetables. Santa Helena, Penalva, Pinheiro, and Viana are the main cities in this area.

It is assumed that the easy availability of food in the form of a rich variety of fish created a favourable situation for the sedentary housing of the human groups that occupied the region. It is also likely that these dwellings had defensive purposes. It is also notable that the oxygen-free aquatic environment preserved the artefacts in such a way that even allowed the ink on the artefacts to remain visible. The straws of the cottage walls and roofs and utensils made from the hardwood, like oars and indigenous weapons (bordunas), also resisted the decomposition process over time.

The most striking Stilt House artefacts are the small objects, like plates and bowls, which most likely were used in serving foods or liquids in rituals. These utensils were made of good quality clay burnt at a very high temperature, giving rise to high-quality vessels. These small ceramics had very complex painted decoration with geometric motifs made with precision, indicating also that these vessels were used in rituals.

### **3. The animal myths in ceramics**

These pottery utensils formed an information channel of the social and ideological structure among the members of the society. As regards to their form and decoration, these vessels reflect mythical themes and/or were used in rituals [15]. Archaeologists agree that the ceramics reflect the culture of a society and that the main social changes affect the production and types of vessels [16]. So, the ceramics are vehicles of expression of ideological content. The most likely evidence of this is that they were painted, decorated, incised, modelled, with plastic decoration, aiming to reflect mythical or ideological themes.

Therefore, the art interpretations are cultural and in this sense adhere to rigid systems of social conviviality. In prehistory, its main material vehicles are small-scale art that is moveable (mobiliary art), such as decorated figurines and pottery and feather art; the graphic art, with parietal art and rock graphics and body painting, the latter very important, because, in general, it demonstrates the status of the individual, as in the case of chiefs and other leaders who had a high social position [17]. Indigenous art is therefore the result of the identity relationship [18] and social conviviality between the indigenous groups [19].

Animal forms are recurring in the art of the Stilt Houses, being the most persistently various birds, but especially owls. The monkey and the jaguar are mostly illustrated Mammals, but also Amphibians (especially frogs) and reptiles (mainly snakes) are common. These animals form the appliques and figurines and are associated with indigenous myths some of which have been described by the missionary chroniclers of the 16th and 17th centuries and by anthropologists when working among indigenous Amazonian communities from the 19th century onward.

The ethnographic analogy shows that myths associating the snake to the creation, such as the canoe-snake, mother of the fish, for example, are recurring in Amazonian cosmologies [20]. Whereas the king vulture is mentioned in Amazonian ethnography as a bird belonging to the realm of the dead.

Anaconda is a shamanic animal in the Amazon. Some peculiar ecological characteristics of these snakes could have attracted the attention of the indigenous people, as the specimens can reach up to 10 m in length and weigh more than 200 kg, is the heaviest animal in the Amazon. Also, the Anaconda has pale skin with black drawings served as an iconographic orientation, efficient camouflage, speed of attack in the water and lethargy on land, active at night, sensitive tongue for predate [21], powerful teeth and muscles and the females are larger and more aggressive than the males, predator of large mammals such as jaguars, deer and tapirs [22].

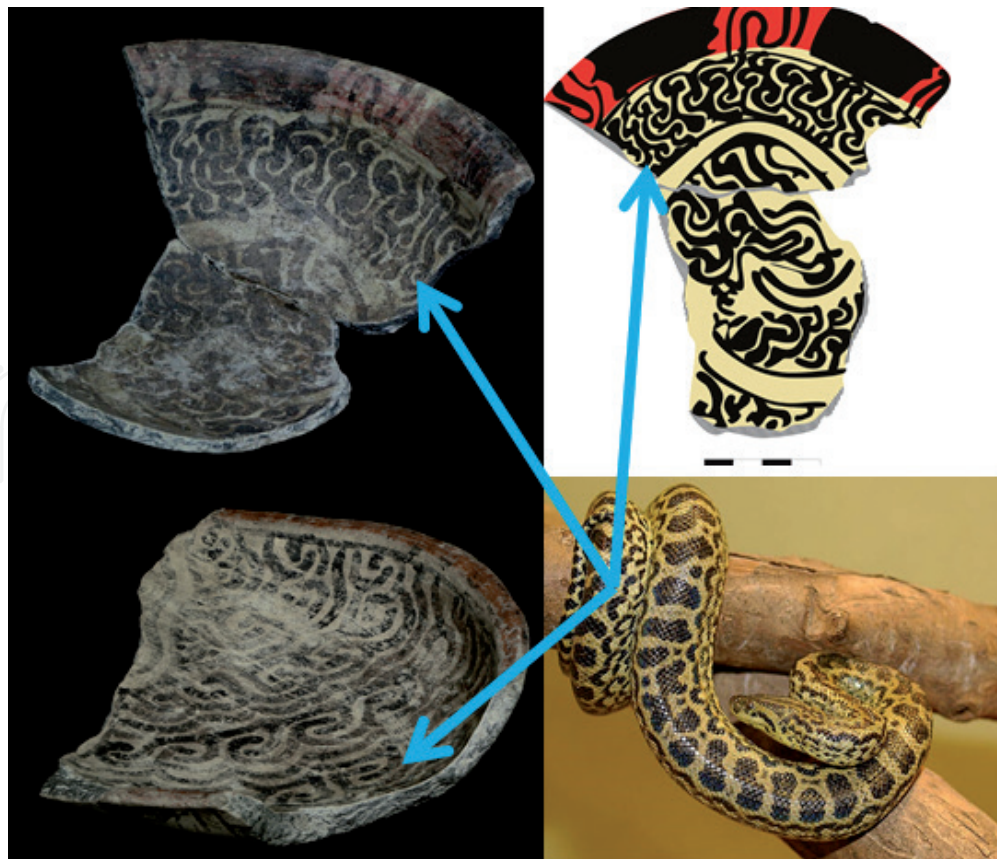
The indigenous peoples we mentioned in this text are the Tukano of the Tukano linguistic family who lives in the northwest of the Amazon; the Pano family Shipino who live between the Amazon and the Ucayali river in Peru; the Tupi peoples who have a wide dispersion in the lowlands of South America and countries like Bolivia, Uruguay and Argentina; the Waujá who live in the Xingu and belong to the Arawak family; the Panare and Timbira that are groups of the Jê family of Central Brazil and the already extinct groups of which we only have archaeological material such as the beautiful ceramic pots Tapajó and Konduri from the Lower Amazon in Brazil. Finally, there are the Warao who still live on stilts in Venezuela.

Regarding the cosmological aspects, the characteristics described above could contribute to the association of this powerful animal with the creation myths of the world and humanity. Among the Tukano, Hugh-Jones [23] the songs intoned by the shamans allude to the Amazon River as the terrestrial Anaconda and the Milky Way, the supernatural and creative Anaconda. Many Amazonian peoples compare the supernatural milk of the creative Anaconda with the milky-coloured sap of hallucinogenic plants of the genus *Banisteriopsis*, whose tree trunk is the metaphor of the body of the creative Great Anaconda [24].

In the polychrome ceramic material of the stilt villages, the principal iconographic element that stands out is the presence of curvy black or hook-shaped designs that fit together (**Figure 2**). The rim of these polychrome vessels is painted red. This iconography is recurrent in almost all the sites of this river. Although abstract, the iconography has a reading order in horizontal bands, filling the entire internal space of the vessel. The predominance of black colour could corroborate the suggestion that these images correspond to the black spots that the anaconda snake (*Eunectes murinus*) has on its back, as Roosevelt also interpreted in his study of anacondas and women-shamans in Marajo island.

This magical world is enhanced by music and dance. According to Barcelos [25], the snakes are part of a myth-musical repertoire among the Wauja, in which *Kamalu Hai* stands out, “the gigantic snake-canoe that carries on its back a long series of singing pots”. These ceramic cookwares are of different sizes and have a varied polyphony according to their function. In this sense, the snake-canoe could imply the origin of the ceramic activity among the Wauja, a pristine myth, therefore.

In the Amazon, the anaconda is associated with both the male universe, among the Tukano, as well as the female. Anaconda’s association with a shaman woman



**Figure 2.**  
*Vessels with Anaconda skin iconographic pattern. Photograph: Fábio Matta.*

and creative deity are common in oral traditions in the Amazon, as among the Shipibo, according to Roosevelt [22]. Indigenous peoples conceive of Anaconda as a dangerous ancestral spirit to the present day. She would be a master who governs the feminine part of the cosmos, which is the aquatic underworld. To Shipibo the anaconda is a woman shaman [26].

According to Roosevelt [22], many Amazonian peoples associate the Amazon River with Anaconda because these snakes dominate the aquatic landscape and because the meanders of the rivers imitate the movement of these reptiles. Thus, it is common for Anacondas drawings to be represented in community houses among the Tukano.

Roe [27] in his classic book *The Cosmic Zygote* reported among the Shipibo the mythological association of the creation of the world with the Anacondas, is also associated with the rituals of healing, divination, ceremonial dances and the creation of musical instruments. Among other groups, such as the Tupi-Gavião and Panare, Anaconda is a giant animal associated with the rainbow [28] or a celestial phenomenon among the Timbira in which the reptiles ends rest in the mouths of two anacondas [29]. The rainbow would be a symbol of disease [30] and for Weiss [31] it would represent “something demonic, repulsive and detestable, as well as the anaconda”. Anaconda, therefore, inhabits a very large number of Amazonian myths, having as main characteristic the shamanic activities which include cosmological creation, under celestial aspects, and cultural properties associated with natural transformations of aquatic life and the water world.

The ceramic figurines indicate the presence of ritual [32]. They are characterised by the representation of animals, especially the owl, the monkey, the turtle and the frog. Some of them are anthropomorphic or zoomorphic design, the zoomorphic being the most recurring. Many of them have a sculptural standard: the legs are open in the shape of a half-moon and some of them possess the feminine genitalia

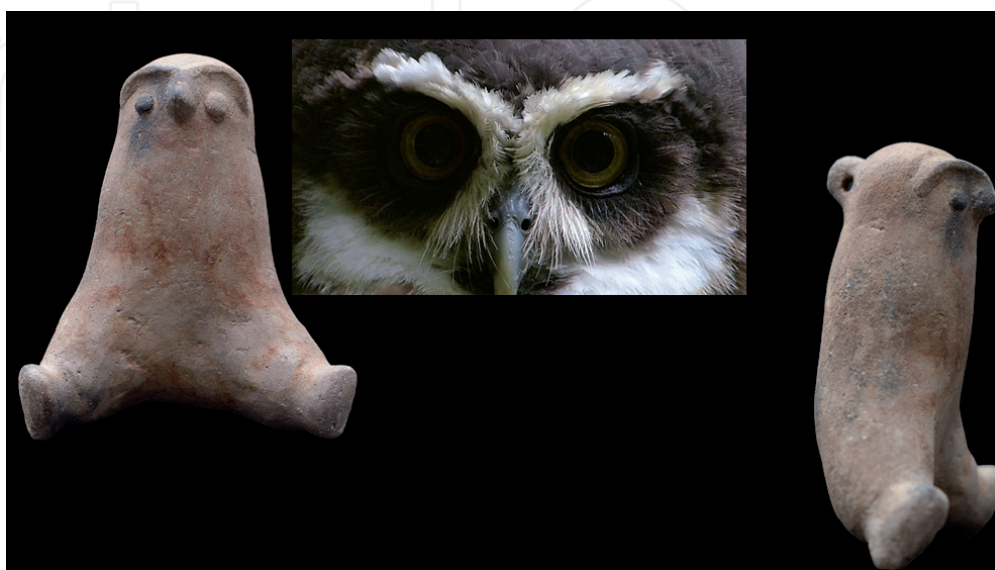
on display. A figurine in particular, in the form of an owl, is a rattler and features a small handle that possibly had the function of being hung.

The shamanic nature of these archaeological materials is also evidenced by the production of figurines, generally female, where there are small clay balls inside, which could be a rattle, known in the lowlands of South America as *maracas*, as communication between the living and the dead. According to Zerries [33], the *maracá* has always been the most important shamanic instrument in non-Andean South American cultures, since “the noise of the little stone or *maracá* seeds inside is interpreted as the voice of the spirits”. Thus, the *maracá* was considered an *idol* for the indigenous peoples of the lowlands of South America (**Figure 3**). Thus, in many cultures the owl is associated with death [34], and evil spirits [35].

These sound instruments are present in the ethnohistorical records of the colonial period such as Daniel [36], D’Abbeville [37] and D’Évreux [38] and also ethnography by anthropologists from the beginning of the 20th century. The *maracá*, therefore, is part of the shamanic paraphernalia since it can emit sound, thus, a form of communication between the different worlds in which the shaman acts. In this way, the rattle functions as a musical instrument whose sound together with the hallucinogens induce special sensations that alter their mental and psychological state. For the Warao, who still live in stilt houses in the Orinoco delta in Venezuela, the *maracás* have spiritual forces and their human forms refer to the ancestral shaman who visited heaven and was gifted with this instrument the Great Spirit of these water peoples [39].

The ceramic figurines were important products of the indigenous art in the Stilt Houses. Sometimes, they represented mainly hand-shaped geometrical figures. Often those represented also animals such as amphibians, fish, mammals and birds, which were similar to those among the Tapajó and Konduri peoples [40]. These animals were represented in a naturalistic style, thus preserving the identifiable traces of the species. A good example is the squirrel monkey (*Saimiri collinsi*) figurine, in which we can identify its furry ears, and in another piece, the torn mouth, typical of these primates [41] (**Figure 4**).

In turn, the frogs are associated with fertility, which is most likely due to the aquatic environment in which these societies lived. Themes associated with frogs are also common in the Mesoamerica [42] and the Caribbean [43] (**Figure 5**).



**Figure 3.** Rattler-figurine in the form of an owl, a maraca whose sound communicated the living with the dead. In the photo the head of the spectacled owl (*Pulsatrix perspicillata*). Photograph: *Áurea costa*.



**Figure 4.**  
*Figurine in the shape of squirrel monkey (Saimiri collinsi). Photograph: Fábio Matta.*

Regard to iconography, it happens through geometric lines or traces that delimit patterns within the stylistic composition of the vase: they are Greeks, zigzags or spirals taking up the interior of the pieces. We can see, that there are two opposite iconographic fields divided by one or two lines across the piece. Mostly the motifs differ in these two fields. For instance, when the square motifs were used in one artistic field, then the circular elements were selected for the opposite one. Red and black were the predominant colours, which were painted on cream engobe or white.

According to Prous [44], some of the motifs resemble the Tupi iconography and he associated them with the custom and practice of eating human flesh (anthropophagic) ritual, such as the representation of the intestine and the brain. However, the pottery shapes at the Stilt Houses, as well as their technologies, such as anti-plastic and quality of clay burning, are very distinct from those of the Tupi. Therefore, Stilt Houses' ceramics show better production control and technological quality.

Perspectivism deriving from structuralism serves the most fruitful theoretical and methodological discussions that apply to the study of archaeological pottery of the stilt villages. The study of the iconographic motifs, as well as their repetition and pattern, in addition to the ethnographic bibliographical revision of the Amazon, show that the geometric motifs of the ceramics are, in general, depictions of the skin or feathers of some animals, especially those of the top of the food chain, such as snakes and owls.





**Figure 5.**  
*Vessel frog appliqué of the stilt villages. Photograph: Fábio Matta.*

#### **4. Conclusion**

This chapter has shown that the pre-colonial Amazon peoples were well adapted to the environment and produced a rich art of strong social cohesion. Two types of the artefact of mobiliary art and one of the graphic art stand out in the conception of the indigenous art of stilt villages. The mobiliary art corresponds to the figurines, generally representing animals (zoomorphic design) and sometimes human beings mixed with animals and the appliques showing different animal shapes, especially mammals, amphibians and birds. Therefore, the art reveals the Perspectivism associated with the cosmologies involving mythical concepts. From the graphic art stands out the black and red paintings on white and cream engobe of the ceramic vessels. They contain geometric shapes which take up two distinct geometric fields, forming motifs resembling the skin of predatory animals.

Guss [45] has pointed out when postulating the relationship between myth and artefacts, that objects act as “subtexts” that provide an understanding of the functioning of society bringing them closer to their origins. In this sense, the artefacts imitate primaevial objects, as they are copies of this primordial world. This concept refers to what Gell [9] would call the object’s enchantment.

Very likely the representation of animals in appliques and painting of Stilt Houses ceramics have a close connection with the creation myths among the pre-colonial peoples in Amazon. Snakes are mainly dwelling in the river, and therefore associated with the origin of human life. The Amazonian rivers, on the other hand, have many meanders remembering the shape of the undulating movement of the snakes. Serpents are also associated with fertility and in an aquatic environment where stilts were found, these myths could be very important as social cohesion.

In the river environment of Amazon frogs are other important animals [46]. These amphibians were associated with the fertility and they produce hallucinogenic substances that allowed the shamans to make their spiritual journeys [47]. Many Indian ceramics have frog-shaped appliques and the small size of these vessels indicates their use for the consumption of liquid drinks. Some scholars have argued that the abstract drawings in ceramics paintings and appliques could originate from the view of the visual illusions (phosphenes) caused by hallucination.

On the other hand, the representation of mammals at the top of the food chain such as jaguars and monkeys may be associated with Amerindian perspectivism. Animals with aggressive characteristics in the ceramic appliques likely represented for the Indians a metaphor of power. It is also possible that these ceramics belonged to the chiefs. Often the animal itself was not represented, but the paintings of the vessels alluded only the skin of these animals.

The bright colours of the Anacondas, as well as their ecological characteristics such as constriction and their large size, played an important role in their choice to symbolise the canoe snake. Nothing better than a strong and large animal to be used as a transport vehicle to populate the villages. The fact of knowing how to swim, like a canoe, corroborates that Anaconda has adequate properties for its appropriation as a narrative. In this sense, the Anaconda had a higher status in the animal hierarchy, appearing only in painting and not in effigies.

Finally, it has to be considered that the contemporary Stilt Houses, most of them comprise the temporality of 800 to 1000 AD. So the long-range of their artistic ideologies in an extensive area, indicating firstly a cultural homogeneity of these societies, and, secondly, makes us think, even if hypothetically, that the existences of these chiefdoms of large regional scale between the 8th and 10th AD coincide with the pinnacle of the precolonial Amazonian societies.

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