
**'We Come from Trees': The Poetics of Plants
among the Jotĩ of the Venezuelan Guayana**

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Abstract

This paper explores the pervasive role of plants in the lives of the Jotĩ, a group of 900 people from the Venezuelan Guayana. In contrast with other Amazonian people for whom plants play relatively minor roles in spiritual spheres when compared to animals (e.g. the Ese Eje, Aguaruna, or Yanomami), among the Jotĩ plants pervade their religious universe, assuming fundamental and polysemic dimensions. Plants constitute active agents in Jotĩ biological, cultural, and spiritual production and reproduction. Plants are prominent within all aspects of Jotĩ society, making it difficult to establish strict separations between subsistence and ideological spheres. This issue is explored here using a broad concept of religion including four interrelated concerns: protology, anthropogony, ecogony, and eschatology. Embedded in this text are three aspects: (1) the contemporaneity of phyto-myths in daily lives; (2) the centrality of plants in the fabrication of humanity; and (3) the relationship of the phyto-world to what some Amazonian scholars refer to as 'the symbolic economy of alterity'.

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Introduction

This paper discusses some ways in which plants permeate the Joti universe beyond the material sphere. The main argument is that plants are actors in the reproduction of the Joti ethos, spiritual performances, and integral lifestyle. This paper is organized along Robin Wright's definition of Religion as consisting of 'cosmogonies, cosmologies, theories of the nature and relationships among beings in the cosmos, and eschatology' (Lecture, University of Florida, 23 August 2007). A slightly modified notion used here considers religion as productive poetics embracing those four interrelated areas of praxis and ideology: (1) protogonies, the order that explains the origin of the cosmos and surroundings (perceptible or imperceptible) and the entities that dwell therein; (2) anthropogonies, the discourse that explains human creation; (3) ecogony, the elucidation of the interrelationship and dynamics between the entities of the biosphere and their current function; and (4) eschatology, the declaration of closure, the individual, and social end or potential transcendence of selves in the afterworld. Poetics refers to the modes in which these matters are 'woven into the fabric of everyday life', a merged arrangement of 'empirical observation' and 'a fanciful embellishment of the inexplicable' (Whitehead 2002: 2). The focus is on the significance and value of plants interdigitated in ritually marked stages of Joti dynamics in the four areas mentioned.

The reconstruction of plants' roles in the Joti universe presented here is based on the testimony of over 55 Joti (of varying ages and genders) as well as on a decade of personal observations of the behavior of the Joti people in different communities (<500 persons). This research was originally focused on techno-ecological, cognitive, and behavioral aspects of the Joti (Zent and Zent 2004a, 2004b). Gradually, subjective and religious dynamics expressed through Joti notions of body, personification and socialization were incorporated (Zent 2005). These dynamics in turn offer the central logic for understanding the Joti lifestyle, such as representations of constant events of interchange and communication among the entities of the universe exemplified by hunting, gathering, gardening, and fishing. Plants generate, catalyze, and provide the meaning of a large portion of these dynamics.

The theories subsumed in this article are eclectic, associated with the symbolic economy of alterity (Viveiros de Castro 1996). Alterity is used here as a synonym of Otherness, how a given culture defines and identifies itself, as opposed to its most significant and different Others (enemies, affines, animals, etc.).

Ethnographic Background

My data here are drawn from broader ethnoecological research conducted with Stanford Zent among the Jotĩ, an indigenous group from the Venezuelan Guayana, since 1996. In 1969 the Jotĩ were the last of Venezuela's thirty indigenous groups to come into contact with the Western world. Most of the 900 Jotĩ are monolingual, of a language apparently affiliated to the Saliva family (Zent and Zent 2008b). Both the Jotĩ and their homeland, the Sierra Maigualida (Amazonas and Bolívar states), were virtually unknown to scientists, which stimulated our interest in developing a research project with an interdisciplinary approach. Maigualida is a mountainous formation of rugged terrain about 300 kilometers long and almost 7000 square kilometers in land area, reaching its highest altitude of 2400 meters at Cerro Yudi. The entire mountain range is covered by dense and high forests (pluvial, riverine, premontane, montane, and gallery forests), except above 2000 meters where tepui flora prevails (Zent and Zent 2004c). Most of the 25 Jotĩ communities maintain to a large degree their ancestral subsistence strategies, although they have been exposed to a varied degree of contacts (with missionaries, scientists, tourists, miners, other Amerindian groups, soldiers, etc.), which in turn have triggered disparate cultural changes among them (Zent 2005; Zent and Zent 2008b). Despite recent changes in their settlement patterns due to this contact (see Zent and Zent 2004a), the Jotĩ still spend more than half of the year trekking between temporary campsites.

In Maigualida, the Jotĩ live traditionally in small, dispersed, and isolated communities of about five to thirty-five people, although their population has been concentrated in two Christian missions (Kayama and Caño Iguana,¹ Catholic and Protestant respectively) and today at least 65% of the Jotĩ live in one of them. However, even in these communities the Jotĩ are organized in mobile, egalitarian, and temporary bands with loose kinship rules (Zent and Zent 2008b). Jotĩ subsistence ecology consists mostly of the hunting and gathering of wild resources during frequent overnight forays and longer seasonal treks, intermingled with shifting agriculture and some fishing. Their settlement pattern consists of temporary shelters during the annual cycle, although each group might retain a sort of base camp where erratically tended gardens are kept. Gardening practices are one among multiple foraging strategies in an environment characterized by seasonally unstable and spatially

1. In February of 2006 a Presidential Decree ordered the expulsion of the North American New Tribe missionaries and a military base was installed in its place.

dispersed resources. The Jotĩ dedicate about 80% of their subsistence activity time to foraging and around 20% to agricultural tasks.

Jotĩ Ecological Ethos and Ethics

Jotĩ language does not have terms that translate concepts such as 'ecology' or 'nature'. Jotĩ conception of space is more akin to a notion of unnamed, continuous, socio-cosmic totality or biosphere that includes diverse and multiple entities. Current research aspires to understand the customs, habits, and characteristics of the Jotĩ associated with their plants and their views on ecology (*oikos*, home, study of home), ethos (*etho*, to be accustomed to, expertise, a form of knowledge), and ethics (*ethic*, custom, character, habit).

Daily actions that people execute without major reflections offer a perceptual expression of their ethos and define a lifestyle centered on notions of the 'right way' of existing in the world. Perhaps the causes of those conducts are found in the diffuse space that lies between ideology and the material world. Among the Jotĩ, plants are like medullar triggers that underlie the stimulus for movement and the construction of events (expeditions, hunting, ritual events, etc.). In contrast to other Amazonian people for whom plants seem to play minor roles compared to animals in their ideological and religious universe (Aguaruna, Brown 1985; Ese Eje, Alexiades 1999; Yanomami, Miliken, Albert, and Goodwin Gomez 1999), plants pervade life spheres among the Jotĩ and take on fundamental and polysemic dimensions. Jotĩ conceive plants as entities ontologically and factually equivalent to people in a way that is similar to that reported for animals in other Amerindian cultures (Viveiros de Castro 1992; Århem 1996a; Cormier 2003; Kohn 2007). Plants play a role not only as landscape components that shape physical contexts (forests, savannas, ecotones, etc.) where the events that generate life take place, or as differentiated physical organisms (herbs, trees, vines, etc.), but also as subjects that assume multiple characters, acting contextually and locationally as hypostatic beings, tricksters, predators, immanent beings, or diacritics that potentially perpetuate or end life dynamics. Not all plants (or animals) are considered equivalent to people, but those perceived as persons have the same social organization and dynamics as the Jotĩ. Some people even state that they have kinship with plants. Plant-persons continue to be people behind their everyday appearance (Viveiros de Castro 2004: 466) and are thus endowed with agency, unique personalities, and attributes beyond their immediate perceived aspects. The Jotĩ's distinctive ethos and ethics, cosmological, social, and individual realms are embraced by vegetal forms as reflected in at least three current dynamics: (1) the occurrence of phyto-myths and phyto-cosmologies in

daily lives; (2) the centrality of plants in the fabrication of humanity and the reproduction of culture; and (3) the relationship of the Jotĩ phyto-world to the symbolic economy of alterity.

No records of Jotĩ history exist prior to their Western contact in the early 1970s. Furthermore, Jotĩ oral traditions reflect minimal concern about documenting their history. Therefore, little can be said about the Jotĩ past except through information recalled in mythological discourses. Inasmuch as myths and narratives are as dynamic as life itself, they constitute a prominent tool to understand the past as interpreted and enacted in the present. Myths are receptacles and expressions of history (Hill and Wright 1988). Phyto-myths—those myths where plants are dynamic, agentive actors—provide significant insight into the Jotĩ ethos and past. Contrary to being stagnant, Jotĩ are acutely aware of changes, particularly those that have occurred during the last decade of their lives. Ancestral discourses and behaviors that pervade the Jotĩ ethos are re-played through new contexts (schools, church, nucleated communities, cities, etc.), through novel medias (written texts, taped histories, etc.), and through using recently adopted tools (GPS, computers, etc.). They sustain and reproduce the right way of being a Jotĩ in the current world. Parallel to embracing changes, the Jotĩ have demonstrated a remarkable interest in incorporating old customs and narratives into new, changeable settings. The fabrication of bodies is a synthetic example of these processes: a statement of both difference and continuity. Jotĩ bodies are the outcome of multiple structured interactions (symbiotic, predatory, mutual, competitive, material, symbolic, etc.) in which plants are vigorous and determinant in the final product. Interaction is used here as equivalent to communication and social networks (Zent and Zent 2008a) among entities: plants, animals, hypostatic beings, people, and so on. Not just matter but also immaterial and essential components of humanity are fabricated with particular vegetal species whose incorporation or exclusion is pivotal to determining future successful relationships with entities in the universe. Use of a myriad of plants is reflected in the daily ritual incorporation of vegetal matters into the body, a broader practice of introducing essences in the bodies that constitutes the self, and that we have translated and conceptualized as 'essence interpenetration' (Zent and Zent 2008a).

Essence interpenetration (*au woi*, *au jkwa*, *au dili*) is a set of practices that requires the direct application of fragments of mostly organic and a few non-organic components to the body. It consists of the individual performance of primarily nasal but also oral and corporal ablutions, libations (*au wai*), concoctions (*au jkwa*), inhalations (*au iño jkwa lamau*), and partial or total body baths (*au dili*, *au ibi*) with parts or portions of

certain plants, arthropods, fungi, fish, birds, and mammals as well as waters rich in some minerals or rocks. This practice ensures connectivity or relatedness with sentient beings in the cosmos. While components of this essence interpenetration vary, plants are a constant presence and the most prominent ingredient. Essence interpenetration is among the last of the habits learned at the beginning of times that distinguishes the Jotĩ way of life. It was taught by *jkyo ae* (hypostasis of thunder, a canonic and strong being) to *moali ja* (a wise primordial person) who trained the *jkajo jadi* (wise light people, shamans) who in turn instructed *nĩn jotĩ* (the true people, entities where the spiritual and physical essences and appearances coincide) to practice it every day.

Essence interpenetration is a multi-purpose practice for the Jotĩ; seven core functional categories include: fabrication-transformation of the body and matter (in order to create the spiritual components such as *jnamodi*, ensure connectivity, and trigger change), purification-restoration (specifically, to amend transgression that breaks connectivity and relatedness), invigorating-recuperation (to restore all health, animus, and beauty), trigger-acquisition (to catalyze vital functions, such as those that start walking, swimming, hunting, etc.), contacting-access (to prepare for gathering or hunting), and preventive-deterrent (to preclude diseases or death of children or adults). Finally, but fundamentally, essence interpenetration is a practice to construct alterity. Through different mechanisms (body painting, ablutions, drinking, eating, bathing, etc.) the Jotĩ allow essences of organic and inorganic matters to penetrate their bodies. Penetration of the same essences within a residential group allows for the assessment of self/other. Alterity is more and more a matter of degree in the daily movement of relations: life seems to be associated with a conscious process of relating the self to an equivalent set of life forms that, while penetrating the bodies not only build and transform them, but are them (Zent and Zent 2008a). Essence interpenetration is conceptually comparable to consubstantiation (Storrie 1999; Belaunde 2005; Londoño Sulkin 2005). I found, nevertheless, meaningful differences. Essence interpenetration is foremost a very conscious corporal technique and also most of the time void of moral value. The Jotĩ decide when and how to submit their bodies to the practice. Another difference is related to what seems to be considered substance versus essence of the entities involved in the interchanges and events of communication among the Amerindians. Among the Jotĩ, not just the particularities that define and set apart a species (in a more abstract and broader sense) but also the variable natural histories and social memories of the *individual members of the species* (whether plant, arthropod, person, insect, rock, etc.) that takes part in the act are transmitted synergistically

to the person's agentivity. In that sense, both what could be considered the 'objective' and 'subjective' aspects of a given entity are active in the essence interpenetration performance. That is one of the reasons why it is unthinkable to eat pets or why a hunter returns to the same individual tree to enhance his/her connectivity with game (Zent 2005). Among the most important essences in constant transferences are blood, tobacco, paints and attires (vegetal resins, animal bones, exoskeletons, etc.), bio-triggers (vegetal, animal, and mineral matters that potentially activate changes in sensual, perceptual, cognitive, or physiological process in human bodies), as well as edible substances (Zent and Zent 2008a).

Protogony

As in most Amerindian cosmogonies, nothing in the Jotí cosmos is generated *ex nihilo* (Viveiros de Castro 2004: 477). Physical perceptual reality originated through transformations of something already existing in a different form. The Jotí's cosmos structure is similar to that of other Amerindian groups (Yekwana, de Civrieux 1980; Nukak, Cabrera, Franky, and Mahecha 1999; Makuna, Århem *et al.* 2004) and involves three layers or tiers of life and reality: *jkyo* above (sky), *jne* in the middle (earth), and *jne jkwa* below (underworld). Prominent, emergent trees found in Maigualida flora support these oval tiers: *jkyo* is buttressed by several trees, the most commonly mentioned being *nin alawini* (*Vitex capitata* Vahl), *jkyo alawini* (*Vitex* sp.), *jnujtiyebo jele* (*Amphirrhox longifolia* [St. Hil.] Spreng), and *jkawale jkajka* (*Caryocar microcarpum* Ducke); *jne* is sustained by four individual trees of the same species which vary according to the speaker: *muye jyei* (*Copaifera officinalis* L.), *nin alawini* (*Vitex capitata* Vahl), *jkawale jkajka* (*Caryocar microcarpum* Ducke), and *kyabo jyei jkajka* (*Qualea paräensis* Ducke). Finally, an intricate root system of these trees lies in *jne jkwa*, the most stable tier and the location of widespread abundance and happiness. Running water moves under and around the spatial span that mediates the spaces between the ovals of *jkyo*, *jne*, and *jne jkwa*. The water and the tiers float in endless motion.

The beginning of conscious time is attributed to the third and current cosmic creation generated after the last chaos or total destruction of the former cosmos. The narrative recalls that the primordial being *ikyejka ja* (the hard one, a trickster being), tired of the disproportion and abuse of power among the overpopulous *jkajo jadi*, cut down the trees that sustain the biospheres causing the collapse of the earth and the shaking of the sky. The underworld remained motionless and unchanged in its own cycles and flows. Along with *jkyo ae*, *ikyejka ja* shaped the earth out of amorphous chaotic matter. Likewise, plants were instrumental in

reinstating the current availability and presence of the four essential elements: air, water, earth, and fire. To avoid losing water, the rain was stored in the trunk of the *jkawile jyei* (*Faramea* sp.); still today, this tree regulates the rain which comes from inside its branches. Likewise, the air was stored by *jkwana uli ja* (hypostasis of giant sloth) on a tree that, according to different versions, could be either *nin mujkë jyei* (*Jacaranda* sp.) or *jkyo kyabo alawini* (*Jacaranda obtusifolia* H & B). Once the earth was rebuilt, the air came out of the tree's trunk. After the last period of chaos, the fire was also kept hidden by *jkwaijlo* (a man that transformed himself into a frog) inside the trunk of some trees, among them *jkyo jkulilu jyei* (*Bixa urucurana* Willd.), *malile jyei* (*Brosimum* sp.), *jwejkao jele* (*Pouruma* sp.), *jlude jyei* (*Dacryodes* sp.), *nin luzwe jyei* (*Inga* sp.), *uli luzwe jyei* (*Inga* sp.), *wejtolo wawa* (*Cecropia* sp.), and *uluku jyei* (*Heisteria* sp.). Earth was again located on top of the canopy of trees, and the roots of many species (former people) created convoluted nettings and webs that definitively consolidated the stability of a permanently moving oval biosphere.

In addition to constituting the fundamental structure that supports life, plants provide aesthetic images translated into circular processes: the stars are tree flowers especially *jkawale jyei* (*Caryocar microcarpum* Ducke), *alawni* (*Jacaranda* sp.), *ili jluwe jyei* (*Inga* sp.), *jono jyei* (*Lecythis* sp.), *duade jono jyei* (*Eschweilera* sp.), and *jluwe jyei* (*Inga* sp.), and these in turn are stars in the forests. The moon was originally a man who, after his involvement in an incestuous relationship, left the earth and decided to transform himself forever into the nocturnal light. He grew up quickly in the canopy of a notable tree, *jkaile jyei* (*Micropholis*; cf. *egensis* [A. DC.] Pierre) and was helped into the sky by two other tree-people that decided to turn themselves into plants: *uli mujkë jyei* (*Tachigali*; cf. *guianense* [Benth.] Zarucchi and Herend and *muye jyei* *Hymenaea*; cf. *courbaril* L.).

Anthropogony

Similar to other Amerindian peoples, the Jotĩ do not believe that humanity is an exclusive, essential quality or condition of a single life form (Hallowell 1960; Viveiros de Castro 1992, 1998). A myriad of beings are humans: many plants, animals, mushrooms, stars, the sun, the moon, topographic features (rocks, soils, etc.) are not merely animated, but rather humans in a different morphological appearance. Humanity is the common or original condition of them, or their shared ultimate reference point. Likewise, humans are the most susceptible, and even predisposed, to change their surroundings constantly while producing the dynamics of life. For Jotĩ there is no tension between humans as objects (*Homo sapiens*) and subjects (endowed with agency sensibility, sensitivity):

humanity is not just a physio-biological given but also a socio-cultural fact (Seeger, Matta, and Viveiros de Castro 1979; Viveiros de Castro 1979, 1992; Ingold 1991). Humans are persons with perspectives provided by their bodies: subjects' inherent differences are not metaphysical but corporal. Bodies have a central position in the understanding of reality (Viveiros de Castro 1979, 1992, 1998). They are the outcome of socio-physiological phenomena involving an endless double motion, fabrication and transformation. Furthermore, the construction of persons goes beyond sensual perception: the body totalizes a particular vision of the cosmos (Seeger, Matta, and Viveiros de Castro 1979).

Jotĩ language does not have a word that translates body in a Western sense. The 'human body' is an aggregate of material and non-material components. Plants are agentives in the social (myths explain the ethnic fabrication of people) and individual (stages of growth of a person) fabrication of human bodies. Social and individual notions are used here heuristically since both refer to the same process.

Creation of Human Society

Plants, compared to animals, as the substrate of humankind are infrequent themes among South American narratives. Exceptions include: the Apinayé (Nimuendajú 1939), the Matchigenka (Métraux 1948), the Bakairi (Métraux 1948), the Arawaks (Brett 2003), the Maipures (Roth 1915), and the Salivas (Roth 1915).

Jotĩ recognize two narratives of human creation, both of which involve specific plants. The first (assumed to be older) is known as the *jtawĩ bo jotĩ* or the tree-trunk people, and credits the gestation of current people to a set of wild plants. The second, known as the *walule miji* people, considers as the raw matter of human creation the domesticated complex of banana-plantain.

Jtawĩ bo jotĩ

It all happened during the last chaos, at which time the current cosmos was destroyed and recreated. *Jtinewa*, the sun (a very big and tall person) stopped his walk at the zenith in the midday point. He had forgotten his trail. A single but incomplete wise man, *jkajo ja*, lived in the earth alone in his *inē ja dodo* (lit. the 'wrapper or skin of meat') or body. *Ikyējka ja* had predated his *ijkwö ju* (lit. 'heart, blood') and all his *jnamodĩ* (lit. 'spirits' or animus selves). *Jkyo ae* came down to earth after noticing that *jkajo ja* pretended that a *muli jwējlo* (bract from the *Socratea exorrhiza*'s palm; other versions claim *jkolowa* [*Attalea* sp.]) was a woman. Both went to look for a *jobei jtawĩ* (tree that sings) and found *jtĩjtĩmo jyeĩ* (*Apeiba* sp.;

other versions recognize *jkwiwkwi jyei* or *nin jluwe jyei*) and, crying out, cut off a piece of wood of approximately 60 centimeters. Then *jkonoto jati*² (a couple of wise bird-man and woman, *Psarocolius decumanus*) gave *jkajo ja* indications to carve the first woman, *ñamulie³au*, out of that stick. The she-life sprouted from inside the trunk; first her heart, then, gradually, the rest of her body (times range between nine days to nine months according to the narrator). The wood sang and the first woman was born looking towards the direction where the sun sets. *Jkonoto au* (the wise woman) placed the baby over a mat and gave her a bath with some plant leaves, seeds, and flowers of agreeable scent. *Jkonoto mali* (the wise man) took *jkajo ja* for *jkjo balebi* (to hunt, fish, gather, explore, and go out in the forest) and returned a few days later with a mass of organic matter with which to bath the baby girl. They cried out welcoming the first female *nin Joti*. The child grew up quickly and when she menstruated for the first time, they celebrated abstinence, isolation, and silence, then climbed a mountain to perforate her nose and thereafter they painted their bodies, took herbal baths, and practiced ablutions. Life was blown into the primordial couple through their two sons, *ñamulie jañye* (first son) and *jtujtea jañye* (younger son) who transformed into the complete, true humans when bathed by their mother with a piece of the first mushroom (*yakino*)⁴ that sprouted from her leg.

Walule miji joti

A more recent version of human origins attributes a second and more numerous type of person to *yowale uli ja* and *yowale uli jau*, the big male and female opossums from the underworld. The story recalls that for a long time *uli yowale jau* piled and stored all *walule miji* (plantains' skins, *Musa x paradisiacal*) that people discarded on the ground after eating the fruit. She fastened the plantains' skins to a shaft that supported their house, just as present-day Joti do in order to mix the plantain skins with tobacco after burning them to ashes. Eventually there was no room for all of the skins and they fell down. Out of those skins the *uli yowale jadi* modelled and fabricated a whole set of *nin Joti*, and thereafter created people from different ethnic groups, including *dodo ma Joti* (us, the people

2. Some narrators mentioned *ñowalibujka jadi*, *moali*, *moali yaya jadi*, or *moali bujka jadi* (eternal wise woman and man). Also cited were *jkajwiye moali* (protectors of peccaries) or a generic couple of *jkajo jadi* (wise light persons).

3. Joti do not use personal names. *Ñamulie* means literally 'first', whereas *au* translates woman but is not recognized as a personal name but as a description.

4. There is no consensus about what kind this first mushroom was; usually a generic one is mentioned. Allegedly, from this first mushroom sprang and diversified all existent fungi throughout the world.

who use clothes). Since people are finite and thus require endless production, *uli yowale jadi* are still in the underworld, fabricating humans in the same way (Zent and Zent 2008a).

Whereas the first myth attributes agency to wild plants, the second gives it to domesticated ones. In the first myth, there is consensus among all interviewed regarding the structure, sequence of events, characters, and the co-existence of three different wild species as the wood-material used to create the first woman. Thus, there is consensus about the fact that Jotĩ come from trees and even about the fact that three species of trees created the true humankind, and from those trees sub-groups of Jotĩ ascend and are organized thereafter. Such awareness mirrors aspects of the social composition, dynamics, and ascendancy of Jotĩ sub-groups, since the three trees *jtijtĩmo jyeĩ* (*Apeiba* spp.), *ajlikwete lue jyeĩ* (*Inga bourgoni* Aublet), and *jkiwi jyeĩ* (*Caraipa densifolia* Martius) are considered the generators of their sub-groups. This divergence of species varies according to the self-ascription of the speaker claiming a unique ascendancy: 'I come from *alikwete lue jyeĩ* whereas my wife comes from *jtijtĩmo jyeĩ*', for instance. Jotĩ recognize at least three trees that sing, which vary as *the proper species* according to the person. Consequently, they distinguish three, and not one, events of creation marking an endogenous social differentiation within the ethnic group. A form of non-extreme alterity is highlighted by an essential tree-origin; the attributes of each case define a subtle differential character among subgroups that is only revealed in critical situations (such as potential conflicts). Explicitly, the ascendancies of the three groups are considered as ways to ponder the most convenient spouses or to avoid incest. Furthermore, the tree's tropical genera are diversely represented in Venezuelan Guayana by a meaningful number of species, *Inga* with thirty-nine (Steyermark, Berry, and Holst 2001: 616), *Caraipa* with thirteen (Steyermark, Berry, and Holst 1998: 13), and *Apeiba* with six (Gentry 1993: 820). This intra-genera diversity mirrors the intra-ethnic group diversity of which the Jotĩ are also very aware.

In some instances, traces of history may be encrypted in the mythological narratives to indicate potential migrations of new groups or dynamics of interaction. This seems to be the case with the second myth in which the raw material involves a domesticated genus introduced purportedly less than 500 years ago from Southeast Asia. Meanings of *Musa x paradisiaca* attest to the agile cultural appropriation of alien material becoming 'traditional' non-antique components. The domesticated *Musa* is made up of many varieties, similar to human ethnic diversity since it is held responsible for *all* people in the world (including some *nĩn Jotĩ*). More extreme alterities are established in this narrative, exogenous and endogenous ones respectively.

Individual Human Creation

Guiding principles of day-to-day behaviors find echoes in these mythical narratives at individual levels in different stages of growth and change: gestation, pregnancy, birth, adolescence, adulthood, and death. The first three moments are focused on the construction of humanity and personhood, while during adulthood the individual strives to maintain his/her human condition mostly through proper eco-cosmic interactions. Finally, death prescribes the closure of a way of being in the universe.

Beginning of Life

The conception of a person occurs when fluids from a man and a woman (semen and blood) are mixed. A woman's pregnancy, similar to what occurs among other Amerindians, does not guarantee the birth of a human. Rather humanity must be fabricated with the culturally determined series of sociological techniques (Seeger, Matta, and Viveiros de Castro 1979). The first body part to form inside the womb is the heart. As part of the *couvade* rituals (followed by parents and some community members to substantiate the making of a human child), certain plants should be contextually consumed (corn) whereas others should not be eaten (short banana, long yam) to avoid malformations and predations to the fetus and to protect it from corporeal transformations. Plants are also used at the start of the process of individuation or separation of baby from the mother. Following the procedure used when the first woman was born, the umbilical cord should be cut with a sharpened bambusoid grass (*jtawibo jwajwa* [*Guadua* sp.] or *jwana jwajwa* [*Arthrostylidium* sp.]). After the severing of the umbilical cord, the father must wash the placenta with the bark of some secret trees and wrap it in monocot leaves (*nijnëo wawa* [*Monotagma laxum* K. Schum.], *jtawe jwajwa* [*Calathea* spp.], or *dökö* [*Calathea* spp.]). The following morning, he buries the wrapped placenta superficially on the roots of certain (usually undisclosed species) soft wooden trees and asks the primordial being *jkyo ae* to take it.

A crucial and definite power of plants in the development of individual human life is associated with the *jnamodî*: invisible components of human beings that insufflate human intelligence, volition, knowledge, and sensibility and serve as the seat of health (Zent and Zent 2007). *Jnamodî* are both fabricated and given in three liminal moments of the person: at birth, during adolescence, and during some specific training. Three days after the baby is born, the father goes deep into the forest and simultaneously requests and fabricates the first *jnamodî* for his child. Proportional to his shamanic knowledge and according to the sex of the

newborn, the father looks for a large number of leaves, vine fluids, barks, roots, flowers and fruits of diverse plants (*yewö tawi*, *jkwii hele*, *luwilo*, *jtamu adé*, *jkyo jtuku*, *jne jkwa*, *jani jkaliwěki*, *juluwěka jnejkana*, *majina jtuku aiye*, *malawa*, *alawini*, etc.), mushrooms (*uli jkwayo yakino*, *awěla wede yakino*, etc.) and arthropods (spiders, scorpions, ants, etc.).⁵ He chews up those elements and makes a mass that he introduces into a basket woven specifically to store the mass. The generative role of plants in this complex moment is undeniable: the newborn's father fabricates spiritual and intangible components (*jnamodi*) of his baby with compounds of many (mostly botanical) species while simultaneously requesting from *jkyo ae* the *jnamodi*. The process is double: the mass assembled by the baby's father (including his saliva) makes up the *jnamodi* bonded by *jkyo ae* into the basket. On the morning of the fourth day, the baby's father returns home and the baby's mother rubs and bathes the newborn with the compound of substances amassed by the father. These essences penetrate, protect, and connect the newborn forever with each of the species that were part of the compound: they act as vehicles through which the *jnamodi* penetrates the new being, providing strength, health, and life. Thereafter, all members of the residential unit are whipped with certain leaves on their legs and arms. Each of the newborn's parents bless portions of a set of different plants and then take separate baths with them (Zent and Zent 2007).

Infancy

During the first two years of life, at least three processes occur wherein plants introduce their agentivity to a person: as tools through body paraphernalia, painting, and dreaming. At approximately five months of age, the parents tie a woven band of cotton around the infant's waist that marks his/her perceptual difference as human being in relation to other entities. Usually the person wears that band until puberty as the sole item of 'clothing'. At ten months of age and through celebrating at a communal party, the children are introduced to the *jkwarajka* or woven beads in order to protect the person's interior self. *Jkwajajka* are comprised of mostly seeds and bracts of wild and domesticated plants (*uli* and *jani jnajtae*), bird feathers, bird and mammal claws and bones, fish cartilage, portions of bottle caps, coins, buttons, glass, and so on. *Jkwajajka* is placed onto infants' chests in the shape of an X, and, as they grow, beads cover their arms and legs (Zent and Zent 2008a). *Moali ja*, a deity, taught Jotí to use beads at the beginning of times as a distinctive feature of humanity,

5. Systematic biological determinations are not provided when bioactivity of those organisms is suspected.

happiness, and personhood. People use beads at all times but especially in the forests. Beads make their wearers *jti ja*: beautiful, good, and healthy; they ward off predators such as *awēladi*,⁶ who do not use and are repulsed by these adornments (Zent and Zent 2008a). At about ten months old the infant is introduced to the complex practice of *maluwe duwidekae*, or body painting, which was taught by *jkēmabakä jadi* in primordial times. Colorful or black vegetal, mineral, or animal essences adorn but especially protect the infant body and are based on different species of wild trees such as *mou jtawï* (*Protium* spp.), *jtokolo jtawï* (*Himatanthus* spp.), and *malu jtawï* (*Trattinnickia* spp.), and the cultivated shrub *jkulilu* (*Bixa orellana* L.). Gradually, as the Jotï enter into adult life, *maluwe duwidekae* is practiced more intensely and frequently. Beads and body painting act as tools aiding the wearer to appropriate essential attributes of the organisms from whence they came.



Figure 1. Body-painting of infant and pre-adolescent boy during a communal ceremonial feast

6. Numerous beings, but especially three kinds of feared polymorphic predators: hypostatic (huge black hairy persons that crave eating a person's eyes), eternal (who were left imprisoned in the underground since the last chaos), or finite (transformation of bad things, laziness, diseases, death; they have autonomous volition but no sense or language [see *awetha*, Overing and Kaplan 1988; *kanaima*, Whitehead 2002]).

Before the infant is able to consume most edible items, s/he is introduced to dreaming. Dreaming is an art learned through the body by the penetration of essences of unique plants. Before two years of age, the person must be bathed with *jlojkodi* and *ibuju mäli* leaves. The compulsory prescription of the bath is determinant: the child's tender body must be penetrated by those leaves' essences in a certain time period of her/his development or s/he will never be a dreamer. Plants here are more than agentive: they make possible or impossible an exceptional competence. The plants teach the *jnamodi* three arts: to communicate with other beings including ancestors and *jnamodi* while traveling in dreams, to hunt/explore the forest, and to heal, restore, and cure. Dreams provide a fundamental perspective of the life sphere; contrary to playing a role secluded from habitual life, they offer clues to guiding daily existence (Zent and Zent 2007: 99). Overall, to dream properly is to consolidate a lifestyle that could not otherwise be enacted without the agentivity of plants.

At approximately ten years of age, childrens' ear lobes are perforated in order to wear small cane plugs which are believed to help in the development of the listening skills of their bearers.

Adolescence

Far from being exclusively material tools, plants are instrumental at the onset of adolescence when the individual's consolidation of personhood is marked through a ritual that entails spatial, corporeal, symbolic, and behavioral elements established during primordial times (López 2006). Plants are prominent throughout three structural stages found in this initiation ritual: restrictions and teachings, corporal marking and departing, and hyperactivity and intemperance (van Gennep 1960 [1909]; Viveiros de Castro 1979: 36). The initiates are allowed to eat just one cultigen (corn, plantain, manioc); they sleep in new hammocks made with *wejtolo jyei* (*Cecropia* spp.) inside a little shelter built at the middle of the family house with palm leaves of *ulu j̄i* (*Attalea maripa* Mart.) and *bajte j̄i* (*Oenocarpus* spp.) that spatially isolates them. The initiates stay there between seven days and three months (it varies according to the speaker) until they depart to a mountaintop to pierce their superior nasal septum with *jani bajte j̄i*'s darts (carved from the midrib of *Oenocarpus bacaba* Mart.). While walking to the mountain they protect their head with a *muli j̄i* hat (*Socratea exorrhiza* Mart.) to hide their presence from *ñejto ja* (rainbow-predator person) and to avoid the penetration of any harmful substance. Returning from the mountain and nearing home, the hat along with the fiber of the little shelter used during isolation and the hammock is put on a termite nest and burnt under a hardwood tree

(*alawini*, *iyējka jyei*, *muye*, *manio*, *jtuwomelekejke*) while the initiates produce loud noises (shouting, tree beating). A few days later, a small piece of wood is introduced in the nasal hole hidden inside the nose and this will stay there for the rest of that person's life. Common wooden plugs are made from *Rinorea pubiflora*, *Licania apetala*, and *Pseudolmedia* spp.

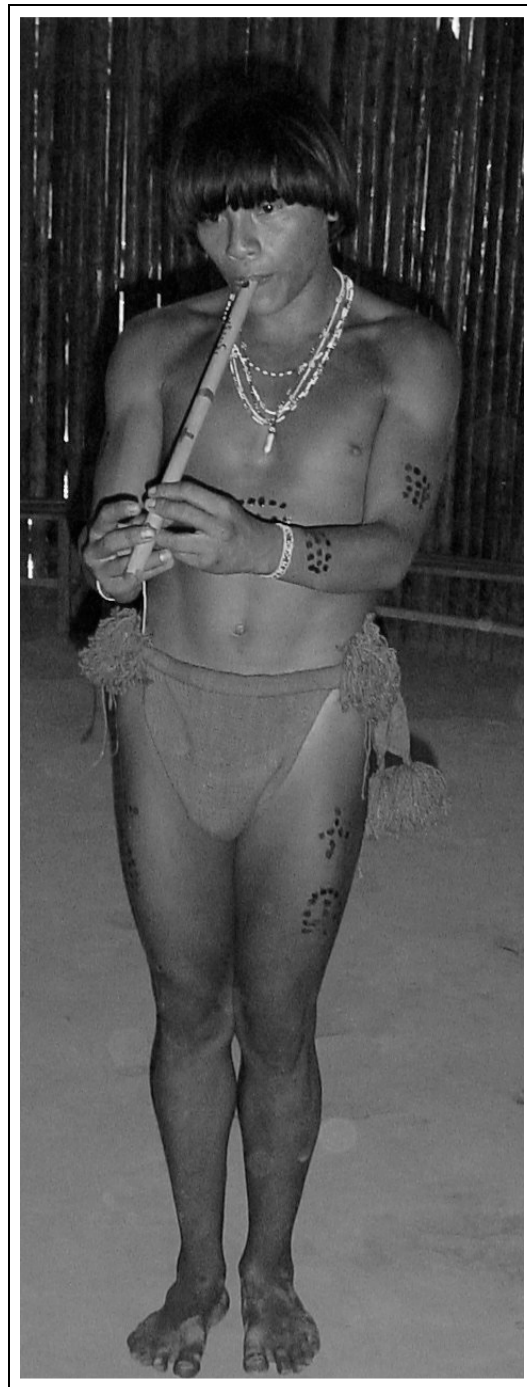


Figure 2. Young man playing a cane flute (*Guadua* sp.) prior to introducing tobacco to initiates

Thereafter, the initiate heads off noisily to the forest, practices ablutions and libations with specific plants, takes a bath, and ornaments her/his body (necklaces, body painting, etc.) to get ready for the final phase of the ritual: a communal festival to return to sociality and request *jnamodi*. The festival starts seven days before the actual congregation of people when the initiates' kin request permission for a ceremony dedicated to the *jkyo aemodi*, known as Masters in Amerindian literature (Reichel-Dolmatoff 1971; Overing and Kaplan 1988; Århem 1996a; Whitehead 2002; Cormier 2003). On the eighth day, they head to the forest while dancing and singing to cut off and hollow out a tree trunk (preferably *jtijtimo jyei*, the same tree of human creation; alternatively, *jwani jyei* *Jacaranda* sp. or *jtabali jyei* *Ceiba* spp.) to act as a receptacle for the fermented beer made out of sweet potatoes or manioc. Paraphernalia is fabricated for all participants with leaves, seeds, and fruits of different species of palms and trees. The initiate drinks, dances, and sings all through the night. The next morning s/he is introduced to tobacco and is allowed to eat various foods. A week of rest follows after the festival and then the initiates go to the forest. After the nasal perforation, the initiate is incorporated as a complete human into social, cosmological, and potentially eternal life. An adult who dies without having endured the initiation ritual is doomed to extinction since s/he will be eaten by *jlojkoi uli ja* (a huge person-predator, hypostasis of a lizard). The ritual closes a cycle of human completeness and marks the beginning of the Joti's life in symbolic, spiritual, and behavioral spheres.

Ecogony

After adolescence, the person is considered an adult ready to start a family since he/she should have the knowledge to guarantee the production and reproduction of cultural and biological life. Only after the celebration of the rite of passage is the initiate allowed to interact properly with many species without jeopardizing the life of community members.

Adulthood

Some central ideas permeate daily events in which the awareness of the interconnectedness of entities in the biosphere is crucial. The subject (individual or social) constitutes the causal foundation that triggers most dynamics in the Joti universe. The subject-person is simultaneously receptor and transmissor of multiple visions of her/his surroundings. These perspectives are given by her/his inherent characteristics (species-specific, body-specific), and in turn defined by her/his *habitus* (bundle of affections). Both subjects and surroundings exist in constant motion.

Movements are interactions among the many characters (plants, sun, animals, moon, stone, etc.), and interactions are the mutual or reciprocal influences, exchanges, contacts, connections, and foremost communications between them in the biosphere (Zent and Zent 2008a). Subjects with their volition, sensibility, reflexive consciousness, intentionality, and agency (Ingold 1991) are responsible for sociality: the immanent element of the Amerindian thought that shapes the cosmos network (Viveiros de Castro 2004: 7).



Figure 3. *Ae ja*, a wise man, holding the traditional wooden shaft that indicates his leadership and ascendancy

Early in the twentieth century, the Estonian biologist von Uexküll (1907) attributed to all species the condition of subjects and not just to humans. He conceptualized *umwelt*, the subjective universe or the outer world as perceived by the organism. *Umwelt* is species-specific and provides the unicity of the different entities in the world. Hence, individual or social preceptors de-codify or ignore the network of interrelated signs and symbols that permeate the biosphere and build their interactions accordingly (cf. Kull 2005: 179). The notion of *umwelt* is in accord with Viveiros de Castro's Amerindian perspectivism (1992), Århem's perspectival quality (1996a), Gray's perspectival relativity (1996), and articulates meaningfully with Ingold's dwelling (2000, 2006). Partially based in the Heideggerian notion of building, remaining, or staying in a place, 'to dwell' is to engage in the outer world, the ability to do so enabling the subject to immerse her or himself in an environment of holistic life as the inescapable condition of existence. This theoretical scheme adapts well to Jotĩ reality. For the Jotĩ, relationships and interactions have ultimate importance. The everyday lives of the subjects are defined by their motions and their capacities to interact with the multiple entities of their universe as well as to affect and be affected by them, by their powers and the nature of their inherent selves. Likewise, the subjects' ability to create and modulate relationships frames a network that delimits their life. Furthermore, entities themselves are loaded with meanings (Zent and Zent 2008a). Subjects are assemblages of relational events whose core is determined by their networks of kin and experiences (Deleuze 1993).

Plants are significant in these interwoven dynamics. Both in mythical and current times, Jotĩ interactions occur in different spheres (abiotic, biotic, among humans, non-humans, etc.), frequencies (isolated event, daily, monthly, once in an individual life-span, etc.), intensities (total engagement, superficial transactions, intermediate force, etc.), and for a variegated number of reasons (economic, social, religious, pleasure, etc.). In these interactions, plants are generative and active actors in the interactions. They constitute meaningful links in the steps of life-form transformations; in fact, one complexity of the interactions lies in the fact that most life forms come from a circular, Boolean-type ontological reality. As described previously, human life sprouted from a trunk carved in the shape of the first woman, while the first mushroom sprang from the foot of the first wood-woman, enabling the fungi speciation processes that generated all mushrooms existing today. Likewise, most wild plants were originally humans (i.e. palms such as *Attalea* spp., *Oenocarpus* spp., *Socratea exorrhiza*, canes to make flutes [*Guadua* spp.] or blowguns [*Arthrostylidium* spp.], etc.) in the primordial times but decided to transform themselves into plants to sustain people on earth; because they

were bored, the plant-person walked away from the Sun's abode to Earth and chose where to live (their habitats) and how to look (their habit). Most of the current mammals and birds as well as cultivated plants were people who decided to transform as desired into actual species. These metamorphoses took place after humans transited and sang, from the interior of an emergent tree trunk (*Qualea* sp.) to the outer forests. Thus, connections between life forms perceived as people-plants-animals-fungi are direct: humanity is an essential component shared by many life forms that interact daily today. Indeed, some people claim to have kinship relationships with various plants and animals species.

The generation of life depends upon an ecocentric ethics and it is pragmatically reflected in the effort to maintain connections through the material and spiritual transference among the spheres of sensible life and social domains. All biota are ontologically interlinked as well as pragmatically dependent upon each other. For example, our data account for 45 mammal species (in 15 biological families) and 53 bird species (in 20 families) hunted by the Joti with the help of tools fabricated with 61 botanical species (in 33 families), whereas we have recorded over 100 species of mostly plants but also some mammals, fish, arthropods, and mushrooms involved in the essence interpenetration associated with subsistence ecology practices that guarantee successful interactions (Zent 2005). Likewise, Joti collect parts of over 220 wild plant species to eat and 11 help them to alleviate thirst while they are distant from water sources, 285 plant species are used to build shelters and houses, 36 botanical species aid them to fish, 193 are employed for technological ends, and 15 botanical species are used to clean and bathe their bodies (Zent and Zent 2004a, 2004b). The biospheric link is constantly consolidated through the essence interpenetration practice supported by applying systematically their knowledge in terms of ecology (species natural histories and interactions, distribution and movements of populations, anthropogenic impacts, etc.), technology (fabrication or trade tools, skills, traditional ecological praxis and wisdom, etc.), sociology (gender relations, kinship, interchange, trade, camping, socialization, etc.), and religion (cosmology, health, myth, rituals, dreams, ceremonies, taboos, essence interpenetration, etc.) (Zent and Zent 2004a, 2004b, 2008b).

Interactions have various dynamics involving characters that change their roles according to the context and the venture: mutualism, amensalism, commensalism, symbiosis, and predation including forms of parasitism (Zent and Zent 2008a). For instance, the hunters' seduction of game starts, just as it occurred in primordial times, with the multi-faceted practice of *maluwe duwidekae*, body painting with a compound based on vegetal resins (*Protium* spp. or *Trattinnickia* spp. and *Mabea* spp. for

male hunters and *Aphelandra* spp. or *Psychotria* spp. for female hunters), seeds, leaves, and pieces of the inner bark of some trunks (*jkwajtakä*) that includes processed parts of arthropods, mammals, birds, and fish, sometimes even mineral substances. But especially, the body paints are mixtures of plants able to communicate with other entities (*Himatanthus articulatus*, *Zingiber* sp., *Bixa* sp., *Protium aracouchini*, *Copaifera officinalis*, *Trattinnickia lawrancei*, *Trattinnickia burserifolia*, *Protium crassipetalum*, *Protium tenuifolium*, *Mabea* sp., *Garcinia* sp., *Hibiscus abelmoschus*, *Ecclinusa guianensis*, etc.). A permanent interchange and transfer of qualities and essences, both material and non-material, is enacted among the life forms that sustain the ethics of belonging, dependence, and affection.

Eschatology

The ultimate destiny of humankind and the world were revealed in primordial times.

Death

Ikyejka ja cut the trees that supported earth at the beginning of times, but night did not exist since the Sun remained motionless in the zenith. Concerned, the first son *ñamulie jañye*, encouraged by his parents, climbed up the sky and tried to convince the Sun, *jtinewa*, to walk behind him so that he could, once more, learn the oval trail around the three life-tiers. Unable to persuade *jtinewa*, and lacking other seductive strategies, *ñamulie jañye* killed him with a wooden lance. After many days of darkness the sun was reborn as a tiny halo of light, which came out from the coals of the minuscule core of the first sun's heart. The Sun grew up fast, and during his maturation *ñamulie jañye* taught him the whole circuit around which he must walk everyday and how to be a proper *nin Joti* (to make baskets, blowguns, mats, lances, houses, and hammocks, and to perform rituals, songs, stories, dances, etc.). Then *ñamulie jañye* descended to earth in the shape of a bat. The cycles began again after the Sun started walking, and with them, many night-creatures became known. Life was in abundance and regained motion (Zent and Zent 2008a). However, no one on earth followed the mortuary rituals required when the Sun died, provoking irreversible consequences for humans: they lost immortality and the opportunity to be *jluweoäi* (eternally young, shedding the skin like crabs or snakes), which forced *ñamulie jañye* to open the path that all people must follow after death towards the Sun's abode. The first people were afraid. With darkness on earth, many predators came and surrounded their home (*yewidi* [lit. powerful predator jaguars] and *awëladì*) and people remained quiet and silent,

even after the peoples' first son (probably transformed into a jaguar) begged them to open the door for him. The chain of potential outcomes is again the product of interlinked (ecological) occurrences of diverse actors and does not consist of isolated events crafted as dogmas or cryptical whims of a powerful entity or a few deities. A crucial goal attributed to one of the first complete men, *ñamulie jañye*, is announcing the destiny of humankind and the potential end of this era if humans did not reproduce the Joti lifestyle (Zent and Zent 2008a).

After death, the person's soul walks to where the Sun is born (i.e. to the East). The voyage is marked by potential predatory events, the nature of which depends upon facts that involve plants—such as whether the deceased wears a wooden plug in her/his nose, consumes tobacco, and whether the mourners fulfill the funerary rituals. Likewise, the final destination varies (underworld, sky, under some mountains, etc.) according to which of the three trees of the primordial Creation myth the deceased came from. Three components of the person—body, heart, and *jnamodi*—endure transformations after death, the viability of which depends upon the mourner's fulfillment of the mortuary rituals. Failure to complete the funerary rituals may result in predation and fatal substantial contaminations (chronic diseases).

As with the birth and adolescence rituals, the three stages characterizing the mortuary rituals also involve generative plants: (1) restrictions and isolation, (2) body markers and depuration, (3) hyperactivity and intemperance. The corpse is washed with vegetal and animal substances before being buried, frequently in areas with abundant subsoil plants. It is wrapped in a mat or a hammock made of *wejtoro jtawï* (*Cecropia* spp.) or cotton fiber, before it is placed into the hole. Large sticks are crossed on top and along the body, and over them are placed leaves of *jkanawa wawa* (*Phenakospermum guyannense* Endl. ex Miq.). Besides the body, the mourners place items they believe the deceased will use to complete the journey (food, lance, blowgun, paints, necklaces, etc.). Thereafter, mourners go away to avoid *awëla*'s attacks (diseases, kidnapping, frightening, etc.) and seek to protect themselves by eating certain mushrooms and decorating their bodies (painting with vegetal substances such as *jkalawine*, *Erechtites* sp., *jkulilu Bixa* spp., *Protium* spp., *muye jai*, *alawini jyei*, *balana*, etc.). Protection is acquired forever once a mushroom (*awëla yakino*) mixed with water is rubbed on the piece of wood that is used for the first nasal perforation. After burial, the group's house is burned, and a new shelter is built about an hour's walk away. For around three months, the mourners, and especially those who touched the corpse, must wash their hands, take baths, vomit, and make ablutions with certain plants. They must also provoke ants to bite their arms, hands, legs,

and chest and wash their scars with particular vegetal substances (varying according to sex and age) while positioning themselves on top of the ants' nests so as to allow the blood mixed with the vegetal fluid to enter the nests. The mourners scarify their bodies and mouths with specific leaves letting the blood drip on several ants' nests. They abstain from consuming wild products. Those who buried the corpse cannot touch children for a month until they have taken a warm bath with specific plants (*jtokwawa, jtijti, jkulilu, jtikiwili, jtuku jedö, mailaj tuku, wejkana, jedö najte alejtö*). Gradually, during a six-month period, the mourners eat one food type after another until they can offer a feast in the new house.

On his final voyage, the deceased must cross a river at the end of the world. *Jlojko* *uli ja*, the biggest predator, is waiting for all dead persons midway across the river: he eats all who lack the nasal wood plug, and only grants passage to the Sun's abode to those who have the piece of wood in their noses. Good spirits receive the survivors in the Sun's home where the dead person turns into a spirit.

Funerary rituals do not just protect a soul from cosmic final predation but allow the continuation of the Jotĩ lifestyle while maintaining health and connectedness with all life forms, thus avoiding cultural and biological extinction.

Conclusions

Similar to other Amerindian people, Jotĩ myths disclose the standard guidelines of the right lifestyle. Plants are central to Jotĩ poetics, both in their narratives and everyday life. Phyto-myths are repositories of religious wisdom that conceal the proper ways of being human in the cosmos. Phyto-myths that explain Jotĩ protogony, anthropogony, ecogony, and eschatology act as moral decalogues, articulating practices in the dynamics of Jotĩ ecological ethos and ethics (ideal bio-spheric behaviors). These dynamics are perceived through daily cultural poetics or performances linking praxis and ideas, primordial and everyday time.

Plants are at the base of life among Jotĩ, constituting a critical link in a circular conception of relations among living beings. Of the examples cited above, significant examples of the role played by plants are as follows:

1. The cosmos structure is maintained, supported, and sustained by more than twenty plants.
2. Human beings were generated from plants, whereas most animals, plants, and mushrooms were originally people. Thus, this origin in vegetal substance continues to have consequences for the Jotĩ ethos today.

3. Intangible components of humanity are produced and given through plants. Plants operate meaningfully in the endless process of fabrication and transformation of bodies; at least thirty-five plants assist explicitly in giving birth to a new human; several more are secret; over thirty are active agents in the initiation ritual and a higher number are used in the funerary rituals.
4. Inductions to real worlds through dreams, as well as the skills to interact, apprehend, and communicate successfully in the cosmos (hunt, gather, dwell, etc.), depend upon particular plants.
5. Plants have a multi-functional role in the reproductive cycle and are used to stimulate, avoid, and terminate pregnancy. The daily consumption of certain plants (as tobacco) guarantees life and its continuation. The bond among plants, humans, and eternity is sanctified through a physical marker since human beings must always carry wooden plugs inserted in their nasal septa. Wooden plugs are believed to provide protection from predation, provide access to the ancestors' world, cure, maintain relatedness with entities in the world, and avert death and extinction.

Permanent intercommunicability of matter and essence permeates and affects individual discrete limits as well as identity and alterity. Plants are critical to this process of intercommunicability. Feelings of belonging and self-definition are highlighted in extreme events of exposure, when the differences are evident between sub-groups of Joti who ascend from different trees, as previously mentioned in reference to the human creation stories. Hence, the statement 'we come from trees' alludes directly to the three trees (*jtijtimo jyei* [*Apeiba* spp.], *ajlikwete lue jyei* [*Inga bourgoni* Aublet], or *jkiwi jyei* [*Caraipa densifolia* Martius]) from which each person and each sub-group of Joti come. Inversely, but subtly, each subgroup is represented by a tree and each group adjudicates its phylogeny to a tree. Tension between similarity and diversity is a more permanent state that appears among the Joti, and plants make those tensions subtle or sharpen them. Difference is stressed through the constant fear of being predated upon, even by certain trees, and turning into one of the predators. Interactions with plants provide diacritics of alterity: beyond providing resources to satisfy needs, plants state the interconnection and complexities of the established limits of discrete individuals since many of them act as the main vehicle of permanent transformations.

The practice of essence interpenetration is today observed on a frequent, if not daily, basis. The insertion of substances in the body is precisely what initiates the change, making the body permeable, sorting out the succession of changes. When a Joti celebrates essence interpenetration through nasal, oral, and corporal ablutions (libations, inhalations,

and partial or total baths) with portions of some plants, mushrooms, and arthropods, s/he sharpens her/his capacity to see, hear, smell, being in the world of the senses. The practice enhances and purifies the body and establishes effective and affective links with the different organic spheres. The bath (essence interpenetration) with the first mushroom given to the first man is the metaphor that summarizes the metamorphosis practiced through the penetration of substances (such as is observed in the fabrication of *jnamodï*, the practice of hunting-magic, the use of tobacco, the carrying of nasal wooden plugs, etc.). The penetration of essences symbolizes the potential metamorphosis after essential body contact/penetration with organic matter takes place.

Finally, plants are fundamental to following the most crucial human purpose in the cosmos: to maintain and reproduce total interconnection of life forms. This interconnection is perceived as the only possible strategy to preserve the universe's existence. This cosmogonic responsibility is the marker *par excellence* of humanity, which is measured by the unique Jotï lifestyle. Hunting, gathering, fishing, and singing are all part of a continuous vital interchange. Humanity's fragility is also the Jotï's major strength: their hyper-consciousness of the latent possibility of chaos, the cosmic collapse and destruction that inappropriate human behavior could trigger by cutting the trees that sustain and support the Cosmos.

References

- Alexiades, M. 1999. 'Ethnobotany of the Ese Eja: Plants, Health, and Change in an Amazonian Society' (PhD diss.; City University of New York).
- Århem, K. 1996a. 'The Cosmic Food Web: Human-Nature Relatedness in the Northwest Amazon', in Descola and Pálsson 1996: 185-204.
- . 1996b. *Makuna: An Amazonian People* (SANS Papers in Social Anthropology, Göteborg University).
- Århem, K.L. Cayón, G. Angulo, and M. García. 2004. *Etnografía Makuna: Tradiciones, relatos y saberes de la gente del agua* (Bogotá: Instituto Colombiano de Antropología e Historia).
- Belaunde, L.E. 2005. *El recuerdo de Luna: Género, sangre y memoria entre los pueblos amazónicos* (Lima: Fondo Editorial de la Facultad de Ciencias Sociales Unidad de Post Grado de Ciencias Sociales).
- Brett, W. 2003. *Legends and Myths of the Aboriginal Indian of British Guiana* (Montana: Kessinger Publishing).
- Brown, M.F. 1985. *Tsewa's Gift: Magic and Meaning in Amazonian Society* (Smithsonian Series in Ethnographic Inquiry; Washington: Smithsonian Institution Press).
- Cabrera, G., C. Franky, and D. Mahecha. 1999. *Los ñikak: nómadas de la Amazonía colombiana* (Bogotá: Editorial Universidad Nacional de Colombia).
- Carlson, T., and L. Maffi (eds.). 2004. *Ethnobotany and Conservation of Biocultural Diversity* (Advances in Economic Botany, 15; New York: New York Botanical Garden Press).

- Cormier, L. 2003. 'Animism, Cannibalism, and Pet-keeping among the Guajá of Eastern Amazonia', *Tipiti* 1.1: 81-98.
- de Civrieux, M. 1980. *Watunna: An Orinoco Creation Cycle* (San Francisco: North Point Press).
- Deleuze, G. 1993. *The Fold: Leibniz and the Baroque* (Minneapolis: University of Minnesota Press).
- Descola, P., and G. Pálsson (eds.). 1996. *Nature and Society: Anthropological Perspectives* (London: Routledge).
- Gentry, A. 1993. *A Field Guide to the Families and Genera of Woody Plants of Northwest South America* (Chicago: University of Chicago Press and Conservation International).
- Gray, A. 1996. *The Arakmbut of Amazonian Peru*. Vol. I. *Mythology, Spirituality and History* (Oxford: Berghahn).
- Hallowell, I. 1960. 'Ojibwa Ontology, Behavior, and World View', in S. Diamond (ed.), *Culture in History: Essays in Honor of Paul Radin* (New York: Columbia University Press): 141-78.
- Hill, J., and R. Wright. 1988. 'Time, Narrative, and Ritual: Historical Interpretations from an Amazonian Society', in J. Hill (ed.), *Rethinking History and Myth* (Urbana: University of Illinois Press): 78-105.
- Hornborg, A. 1996. 'Ecology as Semiotics: Outlines of a Contextualist Paradigm for Human Ecology', in Descola and Pálsson (eds.) 1996: 45-62.
- . 2002. 'Vital Signs: An Ecossemiotic Perspective on the Human Ecology of Amazonia', *Sign Systems Studies* 29:1: 121-51.
- Ingold, T. 1991. 'Becoming Persons: Consciousness and Sociality in Human Evolution', *Cultural Dynamics* 4.3: 355-78. doi:10.1177/092137409100400307.
- . 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (London and New York: Routledge).
- . 2006. 'Rethinking the Animate, Re-Animating Thought', *Ethnos* 71.1: 9-20. doi:10.1080/00141840600603111.
- Kohn, E. 2007. 'How Dogs Dream: Amazonian Natures and the Politics of Trans-species Engagement', *American Ethnologist* 34.1: 3-24. doi:10.1525/ae.2007.34.1.3.
- Kull, K. 2005. 'Semiosphere and a Dual Ecology: Paradoxes of Communication', *Sign Systems Studies* 33.1: 175-89.
- Londoño Sulkin, C.D. 2005. 'Inhuman Beings: Morality and Perspectivism among Muinane People (Colombian Amazon)', *Ethnos* 70.1: 7-30. doi:10.1080/00141840500048474
- López, E. 2006. 'Noções de Corporalidade e Pessoa entre os Jodí', *Mana* 12.2: 359-88.
- Métraux, A. 1948. 'Diversos mitos en grupos étnicos de América del Sur', *América Indígena* 8.8: 9-30.
- Miliken, W., B. Albert, and G. Goodwin Gomez. 1999. *Yanomami: A Forest People* (London: Royal Botanical Garden).
- Nimuendajú, C. 1939. *The Apinayé* (The Catholic University of America, Anthropological Series, 8; Washington, DC: Catholic University Press).
- Overing, J., and M.R. Kaplan. 1988. 'Los Wóthuha (Piaroa)', in J. Lizot (ed.), *Los Aborígenes de Venezuela*, vol. III (Caracas: Fundación La Salle-Monte Ávila Editores): 307-411.
- Reichel-Dolmatoff, G. 1971. *Amazonian Cosmos: The Sexual and Religious Symbolism of the Tukano Indians* (Chicago and London: University of Chicago Press).

- Roth, Walter E. 1915. *An Inquiry into the Animism and Folk-Lore of the Guiana Indians* (Thirtieth Annual Report of the Bureau of American Ethnology, 1908–1909; Washington, DC).
- Seeger, A., R. da Matta, and E. Viveiros de Castro. 1979. 'A Construção da Pessoa nas Sociedades Indígenas Brasileiras', in J. Pacheco de Oliveira Filho (ed.), *Sociedades Indígenas e Indigenismo no Brasil* (Rio de Janeiro: UFRJ, Editora Marco Zero): 11-39.
- Steyermark, J., P. Berry, and B.K. Holst (eds.). 1998. *Flora of the Venezuelan Guayana*, vol. IV (St. Louis: Missouri Botanical Garden Press).
- . 2001. *Flora of the Venezuelan Guayana*, vol. VI (St. Louis: Missouri Botanical Garden Press).
- Storrie, R.D. 1999. 'Being Human: Personhood, Cosmology and Subsistence for the Hoti of Venezuelan Guiana' (PhD diss.; University of Manchester).
- Uexküll, J. von. 1907. 'Die Umrisse einer kommenden Weltanschauung', *Die neue Rundschau* 18: 641–61.
- van Gennep, A. 1960 [1909]. *The Rites of Passage* (Chicago: University of Chicago Press).
- Viveiros de Castro, E. 1979. 'A Fabricação do Corpo na Sociedades Xinguana', in João Pacheco de Oliveira Filho (ed.), *Sociedades Indígenas e Indigenismo no Brasil* (Rio de Janeiro: UFRJ, Editora Marco Zero): 31-39.
- . 1992. *From the Enemy's Point of View: Humanity and Divinity in an Amazonian Society* (Chicago: University of Chicago Press).
- . 1996. 'Images of Nature and Society in Amazonian Ethnology', *Annual Review of Anthropology* 25: 179-200. doi:10.1146/annurev.anthro.25.1.179.
- . 1998. 'Cosmological Deixis and Amerindian Perspectivism', *Journal of the Royal Anthropological Institute* 4: 69–88.
- . 2003. 'La Inmanencia del Enemigo', *Amazonia Peruana* 15.28-29: 41-71.
- . 2004. 'Exchanging Perspectives: The Transformation of Objects into Subjects in Amerindian Ontologies', *Common Knowledge* 10.3: 463-84. doi:10.1215/0961754X-10-3-463.
- Whitehead, N. 2002. *Dark Shamans: Kanaimà and the Poetics of Violent Death* (Chapel Hill: Duke University Press).
- Zent, E. 2005. 'The Hunter-Self: Perforations, Prescriptions and Primordial Beings among the Hodï, Venezuelan Guayana', *Tipiti* 3.2: 35-76.
- Zent, E., and S. Zent. 2004a. 'Los Jodï: sabios botánicos del Amazonas Venezolano', *Antropológica* 97/98: 29-70.
- . 2004b. 'Amazonian Indians as Ecological Disturbance Agents: The Hoti of the Sierra Maigualida, Venezuelan Amazon', in Carlson and Maffi 2004: 79-112.
- . 2004c. 'Ethnobotanical Convergence, Divergence, and Change among the Hoti', in Carlson and Maffi 2004: 37-78.
- . 2007. 'Los Jodï', in G. Freire and A. Tillett (eds.), *El estado de la salud indígena en Venezuela* (Caracas: CISPI, Ministerio de Salud y Desarrollo Social, Venezuela): 77-130.
- . 2008a. *Thinking and Behaving Hunter-Gatherer: Hoti Ecological Praxis and Ethos* (manuscript monograph).
- . 2008b. 'Los Jodï', in M.A. Perera (ed.), *Los Aborígenes de Venezuela* (Caracas: Ediciones IVIC, Mote Avila, ICAS Fundación La Salle): 499-570.