



Fig. 1 | *Canela's girl in a cultivating backyard*
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GROWING GARDENS

towards a theory of ecological
aesthetic performances in
indigenous Amazonia

por Theresa Miller

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Abstract This article focuses on the production and performance of material culture in indigenous Amazonia. When understood as the study of various relationships between persons and things, material culture studies can include an examination of human-plant relationships involved in gardening practices and plant cultivation. This article will demonstrate how North-Western Jê societies conceive of gardening practices as a series of multi-sensory aesthetic ecological performances through which meaningful human-plant relationships are created and maintained. It will be shown how analyzing gardening as an aesthetic performance can lead to a renewed understanding of the material and symbolic aspects of plant cultivation and of material culture studies as a whole.

Keywords aesthetics, performance, ecology, Jê-speaking societies, Amazonia

CULTIVANDO ROÇAS

uma abordagem das performances ecológicas e estéticas na Amazônia indígena

Resumo Esse artigo trata da produção e da performance da cultura material na Amazônia indígena. Entendido enquanto estudo das relações entre pessoas e coisas, os estudos de cultura material podem incluir um exame das relações humano-planta envolvidas no cultivo de plantas. Esse artigo demonstrará como as sociedades Jê setentrionais conceitualizam as práticas de cultivo como uma série de performances multi-sensoriais estéticas, através das quais as relações humano-planta são formadas e mantidas. Será mostrado que, analisar as práticas de cultivo como performances estéticas, pode levar a um entendimento renovado dos aspectos materiais e simbólicos do cultivo de plantas, e do estudo da cultura material em geral.

Palavras-chave estética, performance, ecológica, sociedades Jê, Amazônia

Introduction: material culture production and performance in indigenous Amazonia

In recent years, the material culture of indigenous Amazonia has begun to receive more analytical attention. While indigenous lowland South American societies were previously thought to produce minimal artefacts that were lacking in technical sophistication (cf. Meggers and Evans, 1973; Roosevelt, 1980), recent anthropological studies have shed light on the conceptual significance and technical merits of indigenous design (Lagrou, 2007; 2009), body decoration (Turner, 1995; Ewart and O'Hanlon, 2007), beadwork (Ewart, 2008), and the creation of ritual artefacts such as musical instruments (Hugh-Jones, 2009) and masks (Barcelos Neto, 2009). These Amazonian accounts have contributed to a re-conceptualization of material culture as encompassing various relationships between people and things (cf. Ingold, 2007; 2008; Santos-Granero, 2009; D. Miller, 2010). The performative aspect of Amazonian material culture production has also been touched upon, particularly the importance of the body and embodiment in person-thing relationships (cf. Turner, 1995; Ewart and O'Hanlon, 2007; Santos-Granero, 2009).

Any understanding of indigenous material culture production, however, must include local societal notions of what constitutes an artistic performance and the aesthetic and ethical value of these activities (cf. Myers, 2001). In indigenous Amazonia, it appears that material culture production is not limited to the creation of artefacts and designs, but also includes gardening and crop cultivation practices, conceptualized here as a series of human-plant artistic performances. This paper will explore the implications of this claim through an analysis of gardening activities in Jê-speaking indigenous societies of central and northeast Brazil. A particular focus will be given to how indigenous peoples engage with cultivated plants, and how these human-plant relationships constitute embodied multi-sensory performances. It will be shown how the indigenous Amazonian garden can be conceived as an artistic space within which meaningful aesthetic performances are carried out. Based on the available ethnographic literature, I will outline how a theory of gardening as a series of aesthetic ecological performances can lead to a renewed understanding of the material and symbolic aspects of crop cultivation, and of material culture studies as a whole.

The artistry of gardening: growth, creativity, and skill

While anthropological and archaeological investigations of gardening practices are rare, some recent studies have conceptualized Western gardening as part of a society's material culture. Chandra Mukerji's (2010) historical account of 17th-century French state gardens demonstrates how human dominion over marginalized humans and nonhumans is embedded in material culture, as seen in the organization and design of the gardens at Versailles. Degnen's (2009) ethnographic study of northern English gardeners shows that garden spaces not only represent human social relationships, but are also the site of social en-

counters between humans and garden plants. Contrary to the overarching Western naturalism that differentiates between human and plant “interiorities” (cf. Descola, 2009:150), these English gardeners appear to engage with their plant counterparts through consubstantial relationships of identification (Degnen, 2009:160-161). In different ways, then, both of these explorations of Western gardening practices reveal the materiality of garden spaces and the variety of possible engagements (or disengagements) between persons and things. Although these analyses have contributed to the field of material culture studies, neither one attempts to investigate the artistic performative or aesthetic aspects of gardening. It therefore remains unclear whether gardens are conceptualized as spaces of artistic production in Western contexts.

There is evidence, however, that some non-Western societies such as those in indigenous Amazonia conceive of plant cultivation as a series of artistic performances through which aesthetic engagements between people and plants are emphasized and valued. In this view, “artistic performances” and “aesthetics” are active, relational terms that incorporate both human and nonhuman forms of agency (cf. Gell, 1998). Some material culture theorists advocate for a “symmetrical” view of human and nonhuman agency, in which all sorts of beings share similar agentic capacities and physical “matter” (cf. Latour, 1993; 2000; 2005; Barad, 2003; 2007). As noted by Rival (2010, n.d.) and Ingold (2006; 2008:215), these theories of agency overlook important distinctions between animic processes of self-made growth and processes of external creation. Rival (2010:4-5) references Gell’s (1998:40-41) example of yam cultivation in the Abelam community of Papua New Guinea to highlight the different kinds of intentionality

Fig. 2 | *Canela’s cultivating garden, Escalvado village, Maranhão* © Theresa Miller, 2012



involved in “socially constructed” creation, such as the manufacture of artefacts, and “organic growth.” Yams are thought to utilize their own agentic capacity to “grow themselves” (Gell, 1998:41), and are assisted by the human cultivator’s agency throughout the growing process. Plant cultivation in indigenous Amazonia incorporates a similar emphasis on agentic growth processes (cf. Descola, 1997; Rival, 2001; Ewart, 2005) that is absent from accounts of Amazonian artefact agency. It therefore appears that while all forms of material culture production involve human creative agency, gardening is unique in that it also includes the distinct agentic growth capacities of plants¹.

If both self-generative plant agency and human creative agency are involved in gardening activities, how can an anthropological analysis of these complex human-plant engagements be initiated? The examples from indigenous Amazonia will show how conceptualizing these engagements as ecological aesthetic performances can lead to a more thorough examination of gardening practices than solely evaluating the garden as a functional or socio-economic space (cf. Maybury-Lewis, 1967; Sousa de Nascimento, 2009). “Ecological aesthetic performances” in this sense are understood as a series of multi-sensory perceptual engagements among a multitude of human and nonhuman beings, or “selves,” that inhabit the surrounding environment (cf. Kohn, 2002:72; 2007:4). Some of these engagements, such as those between humans and certain garden crops, are particularly valued and made meaningful within a specific human (and nonhuman) society. Instead of utilizing the traditional notion of aesthetics as a passive system of visual and aural disinterested contemplation (cf. Berleant, 2002), this paper conceives of aesthetics as an active, processual system that incorporates all the senses (cf. Merleau-Ponty, 1964; 1974; Ingold, 2000:166-167). The environment in which these ecological aesthetic performances are carried out is also conceptualized in relational, active terms. It is not a static, external entity but rather a “domain of entanglement” that affords certain experiences to all sorts of beings and is continuously under construction alongside human and nonhuman life processes (Ingold, 2000:193; 2006:14). As the relational realm of affordances, the environment is inseparable from multi-sensory human and nonhuman perceptual experiences.

It is important to note that not all ecological performances are equally valued within a specific community. As Gell (1992; 1998:40-41) points out in the case of Abelam yams and Trobriand islander gardens, what is often aesthetically valued is the difficulty or technical skill involved in creating a work of art. In indigenous Amazonia, it appears that while there is less emphasis on the difficulty of garden work, the embodied skills involved in specific garden performances are particularly valued. This includes the skills and techniques of humans, plants, and in some cases of supernatural master spirits or mythical figures that assist in the cultivation of garden crops. An artistic gardening performance, then, involves a variety of skilful, multi-sensory encounters between humans, plants, and (sometimes) supernatural beings. The next section will demonstrate how meaningful aesthetic gardening acts are carried out in different indigenous Amazonian communities.

1. Non-manmade objects are often attributed with agency, as is the case with *egaando*, or stone bowls, among the Urarina of the Peruvian Amazon (Walker, 2009). These stones, however, do not grow or change over time as plants do.

Aesthetic ecological performances in North-Western Jê societies

The available ethnographic literature on Jê-speaking indigenous societies has largely overlooked gardening activities and has often dismissed these practices as disorganized, “inefficient,” and unimportant (Maybury-Lewis, 1967:47-48; Da Matta, 1982:2; Sousa de Nascimento, 2009:86). A closer examination reveals, however, that cultivating crops is central to many aspects of Jê cosmology, sociology, and ecology. In particular, societies belonging to the Northern-Western Jê linguistic sub-group share distinct forms of aesthetic ecological gardening performances. Northern-Western Jê communities in this study include the Kayapó, Suyá (Kisêdjê), Panará, living in Pará and Mato Grosso states, and two Eastern Timbira groups living in Maranhão and Tocantins states, the Ramkokamekra-Canela and the Krahô (cf. Ávila, n.d.; Instituto Socioambiental, 2005). Jê-speaking societies in general are known for their matrilocal residence patterns, circular villages, elaborate ceremonies, and a trekking-horticulturalist² subsistence economy with an emphasis on maize cultivation over manioc (Heelas, 1979; Seeger, 1981; Azanha, 1984; Lea, 2001). Although horticulture was less nutritionally significant prior to sustained contact with the national Brazilian society, ethnohistorical evidence suggests that gardening has remained conceptually important to Jê societies for centuries (cf. Nimuendajú, 1946; Crocker, 1994; 2004:19; Mellatti, 1978:46)³. The historical aspect of Jê gardening practices is complemented by an emphasis on garden crops in origin myths (cf. Wilbert, 1978). These crops, especially maize and sometimes peanuts, are mythically tied to the creation of indigenous “society” and the separation of distinct ethno-linguistic groups (Wilbert, 1978; Ewart, 2000).

In Northern-Western Jê societies in particular, gardening activities are linked to notions of societal and individual regeneration and growth. Recognizing analogous growth processes between humans and plants is common in indigenous communities worldwide (cf. Rival, 1993; 1998; 2001; Bloch, 1998). In indigenous Amazonia, however, there is often a distinct consubstantial relationship between cultivated plants and their human cultivators similar to that between a parent and child (Descola, 1997; Rival, 2001; Taylor, 2001). For the Suyá, there exists a general “physical bond between people and crops” (Seeger, 1981:105) which is likened to a parent-child relationship. It appears that this physical, parental bond with cultivars exists for both men and women. The female garden owner and her husband must undergo food restrictions until harvest time in order to protect the crops from harm, a practice that is also undertaken by the parents of newborn babies. It appears that perceiving plants as “children” may be a way for Suyá men and women to engage with their garden crops in a kind of aesthetic empathy.

While the Panará only consider peanuts to be “children” of their cultivators, other significant cultivars such as maize and gardens in general are said to “articulate regenerative concepts” (Heelas, 1979:272; Ewart, 2005; personal communication). Similar to the Suyá, the link between Panará people and their garden

2. Traditionally, these groups would go on long hunting and gathering expeditions for months at a time, leaving their village and garden plots. When the garden crops were ready for harvest, the community would return to the village (cf. Maybury-Lewis, 1967; Da Matta, 1982). Due to various factors, including the circumscription of their territories, trekking is now a rare practice for the majority of Jê societies (cf. Seeger, 1981; Flowers, 1994).

3. It is important to note that the legal demarcation of Jê territories in the mid- to late-twentieth century, while assisting in the preservation of their unique social and cultural activities (cf. Seeger, 1981), simultaneously resulted in a circumscription of subsistence livelihoods. Consequently, most Jê societies currently rely on subsistence gardening activities more than they did in the past, and spend significantly less time on collective hunting and gathering treks (cf. Gross et al., 1979).



Fig. 3 | Canela's woman preparing corn
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crops is especially evident in the food restrictions undertaken by cultivators during the growing season, since these same restrictions are followed by the parents of an infant child (Heelas, 1979:252; Ewart, 2005). Ramkokamekra-Canela and Krahô men also practice food, hygiene, and sexual restrictions known as *resguardo* when they are cultivating peanuts (cf. Melatti, 1978:356). The Krahô liken peanuts and other growing plants to adolescent people, in that both groups undergo an isolation period before reaching maturity (Melatti, 1978). Additionally, Krahô and Ramkokamekra gardeners claim that conceptually significant crops, including peanuts, sweet potatoes, squash, fava beans, and maize, have intentional capacities, such as the ability to make decisions, hear, become happy, and remember (Melatti, 1978:356-357; Crocker, personal communication). Kayapó gardeners attribute similar subjective qualities to cultivated plants, including a plant's capacity to be a "good neighbor" to other nearby garden cultivars (Posey and Plenderleith, 2002:6).

These consubstantial parent-child engagements between Northern-Western Jê peoples and their garden crops are possible due to the presence of a similar interiority, vitality, or "animacy" within humans and many nonhuman beings (cf. Santos-Granero, 2006; Descola, 2009; Rival n.d.). In these societies, as in much of indigenous Amazonia, the notion of a shared interior vitality, or "soul," enables communicative multi-sensory experiences to occur among humans and nonhumans (cf. Hornborg, 2001). Although there is much debate over the levels of "passive" or "active" animacy for different types of beings (cf. Coelho de Sousa, 2002:536), it does appear that the Northern-Western Jê communities conceive of plants as active subjects who are willing and able to enter into intimate engagements with their human counterparts. This is not to say that other beings do not have an instrumental role in human-plant relationships. The "master spirit" of a plant species is often thought to interact with both the cultivar and the gardener, thereby creating a triadic human-plant-supernatural relational entanglement. Northern-Western Jê cultivated plant origin myths reveal a similar triadic relationship among people, crops (specifically maize), and Star-Woman or Mouse/Rat, the supernatural agents who enabled the first human-plant perceptual aesthetic engagements (cf. Wilbert, 1978; T. Miller, 2011).

In Kayapó society, for example, all beings possess a vitality known as *karon*, and particularly significant animals and plants each have a master spirit who must be appeased through ritual performances. Through these ceremonies, humans gain dominion over the master spirits and their plants and animals, ensuring a continued ecological, cosmological and societal "balance" (Posey and Plenderleith, 2002:79). For the Eastern Timbira, including the Ramkokamekra-Canela and Krahô societies, a "vital principle" known as *karõ* is or can be present in humans, animals, plants, supernatural beings, and material objects (Melatti, 1978:92-93; Crocker, 1993; Coelho de Sousa, 2002:534-535). While sharing a similar internal *karõ* means that communicative human-nonhuman relationships are possible, they may not always be desirable. Some engagements, such as those between living people and deceased kin (who still possess *karõ*), are seen as dangerous and are avoided by everyone except skilled shamans. This avoi-

dance is further complicated by the Ramkokamekra belief that a dead person's *karõ* turns into a series of animals and then plants, eventually ceasing to exist as a living entity (Crocker, 1993:72-73). Whether human-plant engagements are affected by this belief remains to be seen and could be the subject of further research. Overall, though, it does appear that North-Western Jê peoples typically desire and seek out intimate consubstantial relationships with their garden crops.

As seen in the Kayapó case, human-nonhuman entanglements are created and made meaningful through specific performative acts. One of the most common ways for indigenous gardeners to engage with cultivated plants is through ritual singing. Suyá gardeners perform standard ritual chants near garden crops in the hopes of influencing their growth (Seeger, 1981:104-105). Similarly, the Ramkokamekra have a particular ritual song for each important cultivar, including maize, sweet potato, squash, and fava bean. Performing these songs is necessary for the plant's happiness and growing capabilities, which are seen as interchangeable. These crops are said to "hear" the human singing and, if performed well, will respond by growing fast and providing a good harvest (Crocker, personal communication). Planting and harvesting rituals are also common multi-sensory aesthetic performances for both humans and cultivated plants. While maize and manioc harvest festivals are only mentioned in accounts of Kayapó gardening (Posey and Plenderleith, 2002:4), garden ceremonies in Ramkokamekra, Krahô, and Suyá communities are described in detail.

Jê societies are known for their elaborate ceremonies (cf. Maybury-Lewis, 1979; Azanha, 1984), and accounts of Ramkokamekra ceremonial life are perhaps the most detailed of all the North-Western Jê societies studied. Sweet potato, squash, and peanut crops are all given harvest festivals, and maize is especially ritually emphasized through three planting, growing, and harvest ceremonies. In the maize planting ritual, a song leader directs a group of gardeners to sing over the maize kernels prior to their being planted. This communicative act is intended to please the kernels, who seem to listen to and understand the ritual songs (Crocker, 1990:98; personal communication). The maize growing ceremony in mid-January is characterized by male log racing, an archetypal Eastern Timbira ritual performance. Adolescent men carry buriti palm logs carved to resemble maize cobs, which is meant to increase the maize harvest (Crocker, 1990:98-99). Harvesting maize at the beginning of the dry season is an elaborate, multi-stage event that emphasizes the growth and abundance of maize, individual Ramkokamekra, and the society as a whole. Prior to the harvest, elderly male leaders must taste a few ears of maize to appraise the crop. A portion of the harvest is set aside for processing and consumption as maize-meat pies during a ritual feast (Nimuendajú, 1946:62-63). This feast is followed by a series of athletic competitions including log racing, lance throwing, and tossing shuttlecocks made out of cornhusks. The number of times a shuttlecock can be batted into the air without falling on the ground is thought to directly correlate to the maize harvest's abundance (Crocker, 1990:285-286).

While these three rituals involve different types of human-maize aesthetic engagements, overall the maize plant is valued and made meaningful through its association with concepts of growth and regeneration. Ramkokamekra cultivators are eager to enter into intimate multi-sensory encounters with maize during the planting phase, to assist its generative processes in the growing ceremony, and to recognize the maize's growing prowess in the harvest festival. Thus, it appears that these ceremonies involve human and plant actors who are engaging in simultaneously creative and biological performances. The Krahô have a similar approach to garden crops, also illustrated in their maize ritual complex. Krahô maize planting and harvest ceremonies involve similar activities such as log racing and throwing cornhusk shuttlecocks, while the drying ceremony includes the ritual consumption of maize-meat pies (Melatti, 1978:170, 176-178). Throughout these festivals, there is an overarching emphasis on societal reproduction and maintenance (cf. Ávila, 2004:73) that corresponds with the growth and abundance of the maize harvest. Although specific human-plant engagements are less clear in the available ethnographic data on the Krahô, the maize rituals demonstrate a conceptual link between human and plant growth and reproductive processes.

Garden crops are also associated with societal regeneration in Suyá society. Once again, this is most clearly demonstrated in the maize harvest festival due to the crop's mythical importance. Known as the Mouse Ceremony, this harvest ritual commemorates the maize origin myth, in which Mouse shows a Suyá woman that maize is a food crop and can be made into maize-meat pies (Seeger,

Fig. 4 | *Canela's woman and girl in a cultivating garden after burning*
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2004:28). The woman then gives the pies to her son, instructing him to feed the men's ceremonial house with the new food. Honoring this mythical event, the ceremony centers on a ritual meal of maize pies and gruel, both of which are prepared by women for their sons and brothers (Seeger, 2004:113-114). In this way, all the elements of Suyá society (men, women, and children) come together through the making and consuming of maize pies. Additionally, maize is a mediator between the older and younger generations, ensuring the continued sustenance and regeneration of the community. This ceremony also highlights the multi-sensory human-maize relationship originally initiated by a supernatural being. In the maize origin myth, the Suyá could not perceive maize or other plants growing near the bathing hole as food without the assistance of Mouse. This mythical "discovery" of maize and its annual re-enactment can therefore be seen as perceptual aesthetic performances, in which humans engage with and appreciate the growth and edibility of maize.

Although garden rituals may be the most obvious forms of aesthetic ecological performances, the everyday acts involved in planting, organizing, and classifying garden crops also fall under this category. Each step of the gardening process involves multi-sensory human and plant actions or movements, to use a more fluid, performative term (cf. Ingold, 2008). When the Panará are choosing a garden location, for example, they describe this process as a search for the most "beautiful" soil, which will therefore be fertile enough to support garden crops (Heelas, 1979:245). By perceptually engaging with the soil in an aesthetic way, the Panará combine concepts of beauty, goodness, and fertility or growth. A combined aesthetic and ethical appreciation for certain cultivated plants and their growth processes are especially apparent in Panará society. Panará gardeners have been known to claim that their crops, particularly peanuts, are more "beautiful" and therefore morally superior to peanuts from neighboring indigenous communities (Schwartzman, 1988:78; Ewart, personal communication). While living in the Xingu Park (PIX) in 1970s-80s, the Panará were "scandalized" by Kayabi small red peanuts, which are markedly different to the Panará large white variety (Schwartzman 1988:79). The group also expressed dislike for the haphazard and "messy" layout of Suyá gardens (Heelas, 1979:248). A Panará garden is meticulously organized into three concentric circles, with the central ring reserved for the ceremonially significant crops of peanuts, sweet potatoes, and red maize (Heelas, 1979:253). Concentric circle agriculture mirrors the circular village layout, with the central ceremonial sphere, the peripheral domestic sphere, and the foreign "enemy" elements that are located beyond the village periphery (cf. Ewart, 2000; 2003). Thus, it appears that Panará conceive of the garden as an aesthetic space in which sociological, ecological, and ethical aspects of society are combined.

The Kayapó also practice concentric-ring agriculture. Similar to the Panará, the outermost ring is devoted to fruit trees and/or debris, while the middle and central rings contain nutritionally and conceptually significant crops such as maize, manioc, peanuts, and sweet potatoes (Hecht and Posey, 1989:184-185). The garden layout is based on the interactions between the inner vitalities, or *karon*,

of distinct plant species and/or their master spirits. A skilled Kayapó gardener will know how to harmoniously combine these vitalities “just as an artist blends colors to produce a work of art” (Posey and Plenderleith, 2002:7). Plant vitalities are also combined on a socio-cosmological scale, where they act as mediatory “balancing agents” (Posey and Plenderleith, 2002: 35) between human and animal realms. For the Kayapó, gardening practices are multi-sensory human, plant, and (sometimes) plant master spirit engagements that are necessary to maintain a harmonious cosmos. These engagements are artistic performances involving the creative agency of experienced gardeners and the self-generative agency of the plant (and/or its master spirit).

Although organized circular gardens are central to Panará and Kayapó societies, this is not a pan-Jê characteristic trait. Suyá, Ramkokamekra, and Krahô gardens are usually rectangular plots with a somewhat chaotic appearance. Monocropping and intercropping of different species appears unplanned and haphazard, and slashed plant debris is often left to decompose alongside cultivated plants (Nimuendajú, 1946:62; Da Matta, 1982:40-41; Crocker, 1990:95). This unkempt appearance should not detract from the significance of gardening practices or the garden space itself. From an ecological standpoint, intercropping reduces risk of pests and disease, and leaving burned debris on the soil can actually increase its fertility (cf. Eden, 1990; Brush, 2004:16). Planting certain crops near each other, as the Krahô do with maize and beans, can be advantageous for the growth of both species (cf. Melatti, 1978:47-48; Roosevelt, 1980). With a reduced number of pests and increased plant growth capacities, an intercropped garden can grow on its own, thereby allowing for the traditional Jê practice of temporarily “abandoning” garden plots during extending hunting trips (cf. Maybury-Lewis, 1967). This practice also recognizes the self-sufficient capacities of cultivated plants, who are able to develop and mature into full-grown “adults” much as adolescent youths do during isolation rites, a common feature of Jê ceremonial life (Melatti, 1978; Seeger, 1981; Da Matta, 1982; Crocker, 1990).

In this sense, the garden is a space within which meaningful performances between a human “parent” and a plant “child” are carried out. The North-Western Jê gardener assists in the plant’s own development while simultaneously creatively affecting the way it grows. Throughout their self-generative growth process, these plant children are also being shaped and controlled by their human parents. Similar to a human child, the growing plant child is socialized by its parents in the garden plot, seen by the Suyá as a social transformation of an originally “wild” space (cf. Seeger, 1981:23). These relationships therefore appear to involve an element of control or mastery by the human parent over the plant child, although it is unclear whether this type of mastery is hierarchical in form (cf. Fausto, 2008). At a general level, human creative control over plants has played and continues to play a significant role in plant domestication and varietal diversity maintenance (cf. Brush, 2004). This creative influence on plant diversity is particularly demonstrated in ethnobotanical classification systems. North-Western Jê plant classification displays a preference for varietal diversity.

Conceptually significant species are often classified into dozens of named varieties, and maintaining multiple varieties in one garden plot is valued as an especially skilled practice (cf. Posey and Plenderleith, 2002; Crocker, personal communication). Lamentations over the loss of crop varieties has resulted in serious recuperation efforts, as seen in the Kayapó, Suyá, and Krahô societies (Ávila, 2004; Niemeyer, 2009; Raoni Institute, 2010; Ewart, personal communication). Classifying cultivated plant species and their varieties is based on meaningful past and present human-plant engagements, and in this way can be seen as an aesthetic ecological performance. Drawing on Coote's (1992) claim for an aesthetic understanding of local classification schemes and "everyday" activities, I would argue that North-Western Jê ethnobotanical classification is a multi-sensory aesthetic practice within which certain species and varieties are named and valued in different ways.

Conclusion: creating meaningful garden spaces

The above examples demonstrate how human-plant performances are played out in ritual, myth, garden techniques and organization, and even plant classificatory systems. Through multi-sensory aesthetic encounters, certain relationships between humans, cultivated plants, and (at times) supernatural beings are valued and made materially and symbolically meaningful. Cultivated plants certainly have important material aspects, being simultaneously "artefacts" of past societies (Brush, 2004), material markers of current socio-cultural processes, and living organisms in their own right. Human and plant ecological performances are also clearly material processes involving specific materials such as particular crop varieties and embodied skill sets. A focus on materials (Ingold, 2007), however, should not detract from the symbolic significance of garden performances. Communicative acts (cf. Hornborg, 2001) between human parents and plant children involve key socio-cultural symbols regarding the meaning of a parent, a child, growth, and mastery, among other symbolic concepts. While it is common within material culture studies to place the material and symbolic on opposite ends of anthropological theory (cf. D. Miller, 2010), understanding human-plant engagements as aesthetic performances can lead to a more integrated analysis of these complex processes. Meaningful human-plant perceptual entanglements are simultaneously material and symbolic, as lived realities merge with embodied ideas and beliefs.

There has been an increasing effort in material culture studies to move away from a stagnant interpretation of person-thing relationships and instead focus on the contingency of both persons and things and the importance of bodily movement and growth (Holtorf, 2002; Ingold, 2008). When analyzing relationships between gardeners and their cultivated plants, it is clear that an emphasis on processes of growth, movement, and change can lead to new and innovative conclusions. Instead of examining plant cultivation as a by-product of more "complex" socio-cultural activities (cf. Maybury-Lewis, 1967), this article has attempted to understand the complexities of indigenous Amazonian gardening

in its own right. North-Western Jê societies may have unique ways of engaging with garden crops, but there is evidence that similar human-plant relationships exist in other lowland South American communities such as the Achuar (Descola, 1997; Taylor, 2001), Makushi (Rival, 2001), Kaxinawa (Lagrou, 2007; 2009), and Yanésa (Santos-Granero, 2006; 2011). Further research is needed to compare the gardening practices of many different indigenous Amazonian societies. Only by understanding gardening as a series of aesthetic ecological performances, however, can this type of ethnographic research reach its full potential.

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