Plants that Keep the Bad Vibes Away: Boundary Maintenance and Phyto-Communicability in Urban Amazonia

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Abstract

Across Amazonia, people keep plants in their home gardens to ward off unwanted presences—from bad vibes and disease to pests and thieves. In this article, I show that such plants are not arbitrarily selected but rather have long histories of human use for mediating relations with unwanted others. I contend that these plants' capacities for corporeal and territorial boundary maintenance—attributed in the scientific literature to bioactive compounds—are co-opted by humans for their own purposes of boundary maintenance. In doing so, I reflect on how Amazonian understandings of plant agency and phyto-communicability resonate with scientific accounts but also depart from them. Rather than privileging one interpretive framework over the other, I expand upon Victor Turner's research to argue that such plants allow for the *condensation* of different meanings and forms of knowledge, while at the same time being active contributors to the diverse forms of significance humans find in them.

Keywords: human-plant relations, boundary maintenance, phyto-communicability, home gardens, urban Amazonia

Introduction

The first time I recall seeing an *Aloe vera* plant hanging upside down was in the Amazonian city of Iquitos in December of 2015. Lidia, the woman who owned the building where we were living, hung it there on Christmas Eve. She tied it over the circuit breaker next to the front door with a big red bow. "Remember to ask her what that's all about later," I told myself. Then I snapped a photograph with my smartphone (fig. 1). It left an open question.

A few months later, I saw another aloe plant hanging upside down. I was in a little grocery store where S. was buying chocolate bars by a brand named Orquidea. This time there were actually several aloe plants hanging above the entrance way, suspended a few meters in the air. I approached the owner to enquire about them.

"It's to keep the bad vibes (*malas vibras*) away," he told me.

Bad vibes, huh? I must admit that I met this claim with some uncertainty, but the bodega owner's remark echoed what I had heard in rural communities outside of Iquitos in 2009. During that visit, I had encountered other plants that had similar capacities—to keep away bad vibes or unwanted spirits—like the aroid known in Peru as patiquina negra (*Xanthosoma violaceum*). Its striking purple stem and large glossy heart-shaped leaves made it hard to miss below windows and front doors of rural homes. Then, too, I had felt compelled to ask my hosts about it and I have been asking people in Amazonia about such plants ever since. It seems as if the plants keep asking me to ask about them.

How did these plants become guardians near peoples' doorways and homes? Is it a quirky artifact of human history? Or some capacity inherent to such plants? Or both? Let me try to refine the questions. What led people to adopt these plants to protect boundaries and warn off

unwelcome others? And are there ways in which the plants interact or communicate with others—including humans but not only humans—that is of importance here?

Across the Amazon region, both in urban and rural areas, people frequently keep plants in their home gardens and patios to ward off unwanted presences, from snakes and thieves to malevolent spirits and disease (Kawa 2012, 2016a, 2016b). In home garden surveys that I previously conducted in the central Brazilian Amazon, I identified at least nine species that are used to ward off the evil eye, and I later encountered several species of plants used in the northern Peruvian Amazon to "keep bad vibes away," as I heard from the bodega owner in Iquitos. Many of the same plants are recognized in pharmacological and botanical research for producing bioactive compounds that discourage insect herbivores from grazing on them, fungi and bacteria from attacking them, or other species of plants from choking them out. In short, such plants are significant not only because of what humans do with them, but also what they are capable of doing to others independent of the human presence.

With the emergence of multispecies ethnography (Kirksey and Helmreich 2010; Ogden et al. 2013; Tsing 2015) and post-humanist social theory (Wolfe 2010), many contemporary anthropologists have sought to "decenter" human relations with other species or beings in the world. The questioning of anthropocentric analytics has also led ethnographers to entertain alternative ways of conceptualizing agency beyond the common framework of "[human] action with intention." For example, Dorion Sagan (2013:129) has argued that if we view agency as akin to purposive behavior, then it becomes possible to recognize that many other species and organisms exhibit agency in their relations with others. This is not simply a creative tweak to open up theorization of social relations, but it is borne out of anthropological research that has demonstrated how a singular focus on human agency to the exclusion of all other possible forms

is itself a cultural product of Western Enlightenment thinking (see, e.g., de la Cadena 2015; Descola 2013; Giraldo Herrera 2018).

Alongside these shifts in the theoretical framing of agency in anthropology, we are also seeing new openings in the conceptualization of communication and sensing in interspecies relations that has drawn new attention to plants (e.g. Myers 2015; Schulthies, this volume). This follows broader developments in the field of biosemiotics, which has demonstrated that plants exhibit communicative abilities that allow them to distinguish between self and other, behave preferentially towards kin, attract symbionts, and defend their territory (Karban and Shiojiri 2009; Karban et al. 2013; Witzany 2006: 170). From this growing body of scientific research, it is evident that plants send biochemical signals internally to perform basic functions related to defense and growth but they also communicate externally to close relatives and allies. Like humans and other animals, plants' life-worlds are permeated by sign processes and signification that have crucial bearing on their flourishing (Hoffmeyer 1997).

In this article, I examine the ways in which people living in and around the Amazonian city of Iquitos rely upon plants for protecting their homes and bodies against unwanted invaders and what that might teach us about plant agency and phyto-communicability. Due to its impressive botanical and linguistic diversity, Amazonia has long been a site of ethnobotanical investigation, including a great deal of research focused on medicinal and healing plants, particularly in their use among rural indigenous communities (e.g., Bennett and Prance 2000; Posey 1985; Schultes and Raffauf 1990; Shepard 2004). However, comparatively little ethnobotanical research has focused on the everyday plants that populate the patios and gardens of the residences in Amazonia's urban centers, which are now home to over 75% of people living in the region (see Brondizio 2016). Here, I draw primarily on participant observation and

informal interviews from two periods spent in the city of Iquitos, Peru, between July and August 2015 and March and August 2016 (preceded by an initial visit to the region for five weeks in 2009). These observations grew out of another project I developed there in which I investigated 77 household heads' perceptions of and adaptions to climatic changes in the region. Since I spent considerable time in dooryard gardens and homes, I often included questions about the plants people kept around their residences as well as their uses. This interest follows more extended research I conducted in the central Brazilian Amazon over 12 months between 2009 and 2010 that examined 138 rural household's agrobiodiversity management. As such, this article is not the product of a single comprehensive research project but rather the gradual accretion of observations that span a decade of work in the Amazon region.

Focusing on the examples of *Aloe vera* and the aroids known in Peru as patiquinas, I show that the plants people use in Iquitos to "keep bad vibes away" are not arbitrarily selected. Rather, they are plants that have long histories of human use for mediating relations with unwanted others, be they microbes, spirits, diseases, or other humans. I contend that such plants' capacities for corporeal and territorial boundary maintenance—attributed in the scientific literature to bioactive compounds used in defense as well as communication with other species—are co-opted by humans for their own purposes of boundary maintenance. In reflecting on Charles Brigg's (2005:274) notion of communicability as crucial for boundary work, I offer a model of phyto-communicability that is predicated on mediation, negotiation, and defense. In contrast to communicable diseases that spread through microbes, this model focuses on how plants fend off microbes or other harmful beings and forces, including those that exist outside of Western scientific frameworks. Because my Amazonian interlocutors never described plants and their powers in terms of semiotics, biochemistry, or pharmacology but rather through the work of

"mothers"—protective owners commonly associated with Amazonian indigenous ontologies—I reflect on the ways in which urban Amazonian understandings of plant agency and phyto-communicability resonate with scientific accounts but also depart from them in significant ways. Rather than privileging one interpretive framework over the other, I expand upon Victor Turner's work to argue that such plants allow for the *condensation* of different meanings, activities, and forms of knowledge, while at the same time being active contributors to the diverse forms of significance humans find in them.

The Plant of Immortality

Long before I saw those aloe plants hanging upside down in the city of Iquitos, I had my own intimate history with the species *Aloe vera.* I recall sitting in my maternal grandmother's kitchen, in her home just outside of Chicago, after having carelessly burned my finger on her stove. She broke off a thick, fleshy leaf – more like a rib – and applied it to the burn. The oozing mucilage had a cool, sticky, almost primordial feel to it.

After reading Tim Ingold's (2000) account of learning to identify mushrooms with his father, I'd like to think that my grandmother wasn't just healing my burn, but also teaching me about this plant in a fleshy, sensuous way. Not by telling me, but by showing me, through "an education of attention" as Ingold describes it (ibid.: 22; see also Gibson 1979).

In Brazil, I came to know aloe as erva-babosa or simply babosa, which translates somewhat awkwardly yet accurately as the "slobber herb." And, a slimy slobbering plant it is indeed. I frequently relied on commercialized versions of its prodigious slobber after spending too many hours in the summer sun as an adolescent.

The topical application of aloe reaches deep into human history, with many stories of

famed admirers and devotees animating popular accounts today.[1] The Egyptian Queens Neferiti and Cleopatra are said to have bathed in aloe as a skin treatment. Alexander the Great overtook the island of Socotra, just off the horn of Africa, to gain access to its renowned aloe plantations, which he believed would not only heal his soldiers' wounds but also protect them from future harm.[2] After Jesus of Nazareth was crucified, Nicodemus brought a mixture of myrrh and aloe, about a hundred pounds in all, so that his body would be preserved (Crosswhite & Crosswhite 1984). And Columbus, who was responsible for introducing aloe to the New World, wrote in his diary after setting sail from Spain: "All is well, Aloe is on board" (ibid.: 48).

When used topically, *Aloe vera* works to preserve and protect the bodies of both the living and the dead. According to the pharmacological literature, this is due in part to the antimicrobial and antifungal properties that its exudes possess. This means, then, that it not only works to keep bad vibes away in Amazonian bodegas, but it also keeps at bay those "wee beasties" that infect human bodily wounds and flesh. Such properties may also explain why the ancient Egyptians referred to *Aloe vera* as the "plant of immortality."

But how does *Aloe vera* do this exactly? Natasha Myers (2015: 56) reminds that "plants are masters of chemical synthesis," and *Aloe vera* is no exception. In fact, it is one of the champions of the rule. The plant's saps contain phenolic compounds known as anthraquinones—structural analogues of tetracycline—that act as anti-bacterials and anti-virals (Alipoor et al. 2012). Not to mention, about three percent of the gel in *Aloe vera*'s leaves consists of saponins, soapy substances with antiseptic properties that work as anti-microbial agents against bacteria, viruses, fungi and yeasts (ibid.). So, through its secondary metabolism, which Myers (2015: 56) describes as "all the marvelous chemicals that plants are able to synthesize with the material products of photosynthesis," *Aloe vera* defends its fleshy, slobber-filled body from microbes that

may attempt to feast upon it. It is those very same defenses exhibited by aloe that humans have come to identify and rely on for their own benefit. For both humans and the plants themselves, then, such exudes are an effective means of corporeal boundary maintenance. However, for humans, this has taken on a few distinct forms. In some instances, it is through the topical application of aloe's gel and mucilage for dressing wounds or healing burns. In others, it is through ingesting aloe and letting it work upon the human body from the inside out.

Exudes, Wastes, and Signs of Life

In Peru, aloe is known as sábila. On many evenings while living in Iquitos, I had the fresh gel in my *emoliente*—a hot drink, like a tea, made from an infusion of flowers and herbs that is meant to aid digestion (Bussman et al. 2015). I later found evidence in the scientific literature that the regular ingestion of aloe's gel can be used to treat chronic ulcers and inflammatory bowel disease (Langmead et al. 2004; Størsrud et al. 2015). But, in addition to consuming the gel to treat intestinal inflammation, people in Peru and other parts of the world also consume the bitter yellow latex exuded at the base of its leaves. This latex contains a compound known as aloin, which acts as a laxative stimulant—a different way of keeping the bad vibes away, one could say.

As early as 2200 BC and probably even much earlier, Mesopotamians were using aloe to clean out their intestines and exorcise the demons that they thought to inhabit their guts (Chinchilla et al. 2013). In this manner, aloe was not so much a food that provided nourishment for humans but rather a catalyst that enabled a healthy purging of unwanted bodily substances. This reinforces Jane Bennett's (2009: 49) vision of eating as "the formation of an assemblage of human and nonhuman elements, all of which bear some agentic capacity." "On this model of

eating," she argues, "human and nonhuman bodies recorporealize in response to each other; both exercise formative power and both offer themselves as matter to be acted on" (ibid.: 49).

Bennett's work along with other new materialist approaches in social theory help to remind that human relations to plants, like aloe, are not just about what people do to plants, but also what plants are capable of doing to people. Or perhaps, what they do together as actor-network theory would suggest (Latour 1999: 180). But while Bennett urges her readers to consider the interpenetration of the human and non-human through the act of ingestion, she ignores the products of those intermingling materialities and their broader significance for ecological systems.

In their book *Secretions and Exudates in Biological Systems*, Jorge Vivanco and František Baluška (2012: v) highlight how "not too long ago, secretions and emissions were considered biological waste products" while today they are recognized in the biological sciences for playing "important signaling roles within the organism but also in its communication with the surrounding environment." It is fascinating to think that the secretions or exudes of *Aloe vera*—its shit, you could even say—are helpful for humans to purge themselves of their own bodily wastes, in a socio-ecological "strange loop" of sorts (Hofstadter 2008). Although it might be inappropriate to suggest that human excrement and plant exudates are direct equivalents, drawing parallels between them is useful for illustrating how living systems rely on the cycling of excesses. And, the production of such excesses is necessary not only for the perpetuation of individual organismal lives but also the socio-ecological communities in which they are embedded (Bataille 1991).[3]

In challenging Mary Douglas's (2003) claim that dirt, or waste, is simply "matter out of place," Joshua Reno (2014) argues for a biosemiotic approach to the study of scat and stool.

Reno writes "a human defecates *in principle* just like any other animal, insofar as *they all must do so*—it is a necessary aspect of living with bodies" (ibid.: 6; italics from the original). We can easily extend this argument to the vegetative world. However, rather than plants freeing themselves of solid wastes produced through digestion, they slough off other excesses and secretions from metabolic processes: gases, exudes, latex, saps, and bioactive compounds, which often serve to communicate with the environment and mediate relations between themselves and others. These excretions are even the basis of meaningful mutualisms between plants and other organisms, such as rhizobia – bacteria that colonize root nodules and work to fix nitrogen in return for carbon provided by leguminous plants (Dennison 2000; Kiers et al. 2003). When leguminous plants are in the need of nitrogen, their roots can secrete flavonoids or isoflavonoids to the rhizosphere (root zone), and when rhizobia sense these molecules, they secrete lipochitooligosaccharides that allow the plant to distinguish them as symbiotic partners rather than harmful species (Via et al. 2016). From this vantage point, plant excesses are really not wastes at all, but they are, in a very elemental way, circulating signs of life.

The bodily exchanges and interactions described above reveal the exuberances of plant life-worlds, but they also hint at some of the potential vulnerabilities of living with "leaky bodies."[4] This includes the tenuous or fraught relations between the self and non-self, kin and non-kin, or one's home territory and the world beyond it. In short, these observations raise questions about the problems of boundary maintenance faced by both plants and people—how does one remain vigilant as to determining who is welcome and who is not? And how does one guard against the latter?

An Adornment of a Door

While working in the low-income neighborhood of Pueblo Libre in Iquitos, I frequently heard household heads describe their concerns over thieves that roamed the streets at night and the general lack of security they experienced, even in their own homes. While no one suggested that the plants kept around their patios would directly impede a thief, many acknowledged different plants' powers that could be used to cleanse the home of negative spirits or bad vibes, or to be mixed into baths to heal or protect household inhabitants. And, as I have noted, many plants were kept near doorways and even hung upon them.

So, how exactly did a plant like *Aloe vera* come to be used as a hanging by a door? In searching for the cultural and historical roots of aloe, I came across a passage from R. Campbell Thompson's *Dictionary of Assyrian Botany*. Thompson (1949) writes that the ancient Akkadian cuneiform texts, over four millennia old, referred to *Aloe vera* by the name: *si-bu-ru*. The Syrian and Arabic names for aloe, *sabhrâ*[5] and *sabr*, respectively, are derived from the same word, as is likely the Spanish term, *sábila* (ibid.: 130–131). Thompson adds that he found an "interesting piece of folklore" in which aloe is described as a "'plant for the adornment (?) of a door'," a practice which he notes is still found in Cairo and "goes back to very ancient times" (ibid.: 131).

In the mid 19th century, Edward William Lane (1860: 332) wrote:

> It is a very common custom in Cairo to hang an aloe-plant over the door of a house; particularly over that of a new house, or over a door newly built: and this is regarded as a charm to insure long and flourishing lives to the inmates, and long continuance to the house itself. The women also believe that the Prophet visits the house where this plant is suspended. The aloe, thus hung, without earth or water will live for several years; and even blossom.

Other books of the time describe this practice as also belonging to Christians and Jews in Cairo (Milne 1805). This practice, however, has been modified somewhat in other contemporary urban contexts. In an ethnobotanical study among Spanish-speaking Latino immigrants living in London, Ceuterick and colleagues (2007) encountered a significant number of interviewees who placed *Aloe vera* in a pot near the entrance of their homes or businesses to bring good luck or keep bad energies away.

It would appear, then, that the hanging aloes I found in Iquitos are the extension of over four millennia of the plant's use as a doorway adornment. Crosswhite and Crosswhite (1984) reason that this use began when it was hung by kitchen doors so that in the case of burns, leaves could be broken off to provide an instantaneous salve, just as I experienced in my grandmother's kitchen. However, many other plants kept near doors in Amazonia are not necessarily used for household injuries and some are even harmful to humans. To understand aloe and its power to keep bad vibes away, it is helpful to examine other plants that perform similar roles in Amazonian homes as boundary markers.

Other Plants that Keep the Bad Vibes Away

During my first visit to the Peruvian Amazon in 2009, I accompanied my friend Richard, a botanist from Iquitos, on a trip up the Tahuayo River to spend several days in the community of El Chino, where he had been conducting research on medicinal plants. After a few days of uninspiring football performances and lazy visits with women who wove handicrafts using chambira palm (*Astrocaryum chambira*) fibers, I began to poke around in people's home gardens. Early on, I noted a plant that consistently stood out in front of homes and side yards. It was an aroid (Araceae family) with a deep purple color that dominated its stem and leaves (fig.

2). Richard told me it was known as patiquina negra. When I asked about its uses, he gave me a curious look and said: "people use it to keep evil spirits away."

When I returned to the Peruvian Amazon several years later, I saw patiquina negra in many dooryard gardens across the city of Iquitos. I also encountered other plants kept in pots – or more often, old buckets – surrounding the home that served as protection against bad vibes or evil spirits as well as thieves and unwanted visitors—both human and non-human. While visiting with a young woman whose father was a healer in the rural community of Yanayacu, she told me that the leaves of the plant could be passed over the body to relieve an individual afflicted by *mal de viento* (bad air), a common folk illness of the region. I later heard, from another resident, that it could also be used for *limpieza de casa*, or for cleansing the home. Like aloe, patiquina negra is understood to possess qualities that enable it to keep bad vibes or spirits from entering the home as well as treat individual human bodies that may be affected by threatening intruders.

Patiquina negra's cousin patiquina verde (*Dieffenbachia seguine*) has long been used in the Amazon for similar ends (fig. 3). An elder resident in the neighborhood of Pueblo Libre in Iquitos told me that when "bad people" came near her house, "they clashed with the plant" (*ellos chocaron con la planta*) and usually the leaves would turn yellow and fall off when this happened. I had a similar plant in my office in the United States that had suffered for years under my care. I began to wonder if my negligence was the reason for its misfortune or if some of my colleagues might have been partially to blame.

In Brazil, patiquina verde is known as comigo-ninguém-pode, which means literally, "with me, no one can," or what can be very loosely translated as the "don't-fuck-with-me" plant. In English, it is referred to as "dumb cane" because when chewed, its leaves cause swelling of the mouth and tongue. It was once employed as a punishment for defiant slaves in the Americas

(Barnes and Fox 1955). To add to the plant's notoriety, in 1941 a physician wrote to Heinrich Himmler that extracts of the plant could help in sterilizing "racially undesirable war prisoners" in Nazi Germany and the *Reichsführer* ordered that further research go into its application (Kenny 2002). Like aloe, patiquina verde is kept around homes to keep bad vibes or unwanted visitors away. Unlike aloe, however, it has biophysical properties that make it quite threatening, and even potentially lethal, for humans.

There are many other examples of plants kept in Amazonian home gardens or doorways to ward off unwanted visitors or presences, including rue (*Ruta graveolens*), guinea hen weed (*Petiveria alliacea*), bellyache bush (*Jatropha gossypiifolia*), and garlic vine (*Mansoa alliacea*). All of these plants are used by Amazonian peoples to mediate relations with other beings and presences in their environment. Much more than simple conduits for human meaning, these plants also possess distinctive capabilities that are recognizable to humans, either to support (human) health or cause suffering. It would seem that by keeping such plants near their homes, the residents of Iquitos are enlisting them or attempting to harness them for their own means or ends. However, the recognition of such powers or capabilities is not typically interpreted through the language of biochemistry or pharmacology, but rather through Amazonian concepts and idioms linked to the "perspectival" thinking that pervades the region.

Perspectivism and Plant Mothers

Many anthropologists have noted that Amazonian indigenous peoples often acknowledge diverse beings in the world as persons with subjective agencies, "each endowed with the same generic type of soul [or], same set of cognitive and volitional capacities" that allow them to see themselves as human (Viveiros de Castro 2004; see also Århem 1993, 1996; Descola 2013;

Fausto 2008; Vilaça 2005; Viveiros de Castro 1998). While humans may perceive other living forms as animals or plants or spirits, the framework of Amerindian perspectivism suggests that perception is borne out of bodily difference and positionality in intersubjective relations. For example, in Eduardo Kohn's (2013) ethnographic research among Quichua-speaking Runa of the Ecuadorian Amazon, he shares how one of his counterparts urged him to sleep faceup so that if a jaguar were to come, the jaguar would recognize another human staring back; otherwise the jaguar would perceive him as an animal or prey.

To add a further layer of complexity, some animals and plants are watched over by "mothers" or "masters of game" that can counter predatory attacks or incursions against them by humans or other agents (Fausto 2008; Giraldo Herrera 2018: 24; Jauregui et al. 2011; Viveiros de Castro 1998). Remarking that they are "widespread throughout the continent," Eduardo Viveiros de Castro (1998) further notes: "These spirit masters, clearly endowed with intentionality analogous to that of humans, function as hypostases of the animal species with which they are associated, thereby creating an intersubjective field for human-animal relations even where empirical animals are not spiritualized" (471). As I found in Iquitos, this intersubjective field accommodates plants as well as environmental features that are not even considered to be "living" in the framework of Western bioscience.

Although there has been much recent theorization of Amerindian perspectivism and variations in its conceptualization (see, e.g., Costa and Fausto 2010; Londoño Sulkin 2015; Vilaça 2002, 2005; Viveiros de Castro 1998), relatively little has been written about how "mothers" and other elements associated with perspectivist thinking are present in urban Amazonian settings, even among people who do not identify as indigenous. In 2016, while interviewing residents of the neighborhood of Pueblo Libre about the impacts of extreme

flooding in the city, a young woman mentioned that a small stream by her house never dried because it had a mother (*una madre*) that cared for it. People described it as a tremendous black caiman. My research assistant Andy quickly chimed in by saying that a little lake near his house was also said to have a mother, but it was characterized as a large boa. Not long after, Andy began to tell me: "My father says that all plants are full of life and when he is watering [them], he's always talking to them. Some are magic, like paico." To which he added, "A lot of people say you can do witchcraft (*brujería*) with plants." The shift in our conversation from mothers that watched over lakes and rivers to the lifeforce of plants and their use as instruments of witchcraft might seem odd or even wholly unrelated, but in other interactions with residents of Pueblo Libre, I heard that plants also had mothers and that their powers were directly articulated with them.

Nearly one year prior to my discussion with Andy, a young man named Carlos and I trekked out to his family's floodplain farm situated on the banks of the Itaya River, opposite from the city of Iquitos. It was the end of the rainy season and we found ourselves warily sliding along a viscous path of thick mud. We approached a large tree with cane grass (*caña brava*) surrounding it. Carlos told me it was known as an ojé tree and it produced an exude that was used medicinally. But more important, he told me, is that it has a mother, *una madre*. "What kind of *madre*?" I asked. "*Duendes* (dwarves) that watch over it, and which call animals to protect it," he said. "People used to walk the trail by night, but with the ojé tree here, they don't anymore."

Carlos's reference to *duendes* can translate from Spanish as "dwarves" or "elves" and this is how I originally came to understand his comment. But this is also a form of equivocation (Viveiros de Castro 2004; de la Cadena 2015: 26-28). By this, I mean that such a translation fundamentally misunderstands the reality that is being conveyed through words or concepts that

otherwise seem to be shared. This is because thinking of *duendes* as dwarves overlooks the word's close relation to the term *dueño*, or owner. And in Amazonian ethnographic studies originating in Brazil, "mothers" or "masters of game" are also frequently referred to as "owners" (*donos* in Portuguese). Carlos Fausto (2008) argues that such owners or masters are central to understanding Amazonian socio-cosmology broadly, and I would argue to understanding Amazonian peoples' relationships to plants specifically. In a telling passage, Fausto writes "…everything in principle has or can have an owner: the forest, animals, rivers and lakes, but also a single animal species, a given plant species, or even that bamboo forest over there, or that curve in the river, a specific tree, or a particular mountain. To affirm that the cosmos is structured by relations of ownership [*domínio*] does not mean, however, to conceive it as organized exhaustively in discrete spaces (territoritories and jurisdictions)…[rather] these relations of ownership are multiple and potentially infinite" (translation mine; p.340-341). In other words, "owners" or "mothers" are part of the ongoing negotiation of relations between a diversity of beings and forms in the world, and more germane to my observations in Iquitos, they play a vital role in the relationships between people and plants and how they come to defend their bodies and territorial boundaries either individually or collectively.

Costa and Fausto (2010) observe that the reciprocal category for owner is usually 'child' or 'pet,' which highlights a relation of adoption. These authors underscore the asymmetry of this relation, as owners control and protect those they look after. To expand further, they write "this asymmetry is often conceived as a form of encompassment, involving a complex interplay between singularity and plurality: the owner is a plural singularity, who contains other singularities within himself. The owner-master is, therefore, the form through which a plurality appears as a singularity to others" (p.99-100).

In light of these observations, it can be argued that by adopting plants, the residents I encountered in Iquitos take on the role of meta-mothers or meta-owners. While this claim is merely speculative, it is clear that in watching over plants in their homes and caring for them, there is an implicit hope that such plants will work in favor of their human guardians, either to ward off menacing thieves, bad vibes, evil spirits, or bacterial infection. Like the multiplicity made up of the plant and its mother that becomes recognized as a singularity, the human guardian and its plants become another multiplicity that constitutes the home or domestic space. Rather than a site of static harmony though, it is characterized by excesses and leakiness, of individuals coming and going, of boundaries drawn and re-drawn, and of constant vigilance and negotiation.

Conclusions

Recently, several insightful ethnographic projects by scholars like Marianne Lien and John Law (2011), Zoe Todd (2014), and Marisol de la Cadena (2015) have argued that entities like fish or mountains can emerge as ontologically different beings in distinct socio-cultural contexts or networks. However, in the cases of *Aloe vera* and the patiquinas I describe here, notable capabilities and attributes of these plants allow for them to be traced across historical, geographic, and cultural contexts. Following Victor Turner's work, I contend that aloe and other plants used to keep bad vibes away in Peruvian Amazonia should be recognized for their distinctive *condensation* of diverse activities, uses, and ways of knowing. When Turner (1967) examined the diverse meanings and rituals associated with the milk tree among the Ndembu, he noted that the tree yielded a milky sap that came to represent breastmilk, motherhood, and matriliny, but also Ndembu society more broadly. The tree was, in Turner's vision, a ritual

symbol characterized by condensation and the unification of disparate significata, broadly related to themes of dependence and nourishment. With aloe and the patiquinas that appear in the patios of Iquitos, I would not consider them to be ritual symbols in Turner's conception but they do condense various meanings and understandings in a parallel manner. I would include within this condensation ways of knowing that are variably labeled as scientific and biomedical as well as others that may be considered distinctly Amazonian. But to expand upon Turner's notion of condensation, I would argue that plants are also active contributors to the significance humans find in them.

I began this article with the image of an *Aloe vera* plant hanging upside down next to a doorway in an urban Amazonian home. At the time I saw it, I knew it meant something but I did not know what exactly. When I began uncovering the human histories behind its use, I had assumed that the plant was hung there by a human to communicate something to another human. In other words, if considering C.S. Peirce's (1992) triadic model of semiosis consisting of a sign, an object, and an interpretant, I always imagined that the interpretant was supposed to be me, or someone like me. Even when I heard from Amazonian peoples that such plants worked to keep bad vibes away or ward off unwanted presences, I never fully considered how plants like aloe might be placed in homes to communicate or interact with others in a realm beyond my perception or comprehension. But of course, plants' life-worlds are shaped by relations that may include humans but more often than not require that they interact with a wide diversity of other species.

In further reflection, I see such plants as doing important semiotic work intended for human interpretants, but also many others. When humans hang aloe plants at their doorways, this can serve as a warning signal to other humans to proceed with caution, or it may represent a

desire for safety on the part of the homeowners. Considering that many of the species that Amazonians use in this way have the capacity to meaningfully harm or heal humans, such signals are more than hollow threats or mere projection. In listening to people in the city of Iquitos, however, it is also clear that the plants they keep near their doorways are meant to serve as mediators between themselves and a much broader array of beings and forces that can pose threats as well as opportunities for meaningful mutualisms. From this viewpoint, the plants are also acting as interpretants, reading situations and determining who should be invited in and who should be left out. This observation aligns with recent ethnographic work in other parts of Amazonia, including Eduardo Kohn's (2013) attempts to construct an "anthropology beyond the human." While Kohn acknowledges that human symbolic language is distinct from other forms of communication, humans also share iconic and indexical forms of communication with other species. From the tracks of an animal in the forest to the saps left behind by a tree, these signs are part of a broader life world in which humans are enmeshed but not the only ones acting as interpreters. So, when people hang aloe on their doors to ward off bad vibes, the plant is much more than a passive object of human manipulation—it, too, is an agentive, semiotic being.

Notes

1. Many papers and books share essentially the same historical outline, including Nefertiti and Cleopatra as fans among the Egyptians, then Alexander the Great (urged by Aristotle), Dioscorides, Hippocrates, Pliny the Elder, and Christopher Columbus, among others (e.g. Foster and Johnson 2008:14–15; Chinchilla et al. 2013)
2. From Chinchilla et al. 2013: "It is believed that, around 330 BC, Alexander the Great was shot with an enemy arrow in the siege of Gaza (Palestine). He saw how his wound became infected during the conquering advance through Egypt and the Libyan Desert. A priest sent by the celebrated Aristotle (his tutor and mentor), smeared the wound with an oil made from aloe that came from the island of Socrota. His injury was cured. It seems that Alexander the Great undertook a naval expedition to take over Socrota's Island and its aloe plantations with the encouragement of Aristotle. Indeed, it was even claimed that the juice of this plant made warriors invulnerable."
3. In *The Accursed Share*, *Vol. 1*, George Bataille (1991: 21) writes, "I will begin with a basic fact: The living organism, in a situation determined by the play of energy on the surface of the globe, ordinarily receives more energy than is necessary for maintaining life; the excess energy (wealth) can be used for the growth of a system (e.g., an organism); if the system can no longer grow, or if the excess cannot be completely absorbed in its growth, it must necessarily be lost without profit; it must be spent, willingly or not, gloriously or catastrophically."
4. In *Leaky Bodies and Boundaries*, Margaret Shildrick (1997) explores how bodies of women are valued differently than those of men, and that men view women's bodies as "leaky" or lacking secure boundaries. Recent developments in queer ecological scholarship are helping to extend such observations to the "more-than-human" realm, thus questioning how humans more generally may perceive bodies of different species or organisms in limiting ways.

5. Sabra, a popular brand of Israeli hummus, comes from the Hebrew term *tzabar*, which is used to refer to a Jewish person born in Israeli territory. It is also a term that refers to the prickly pear cactus, another desert plant.

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Figure 1. This aloe plant was hung on Christmas Eve next to the front door of the residence where the author resided in Iquitos, Peru (2015).

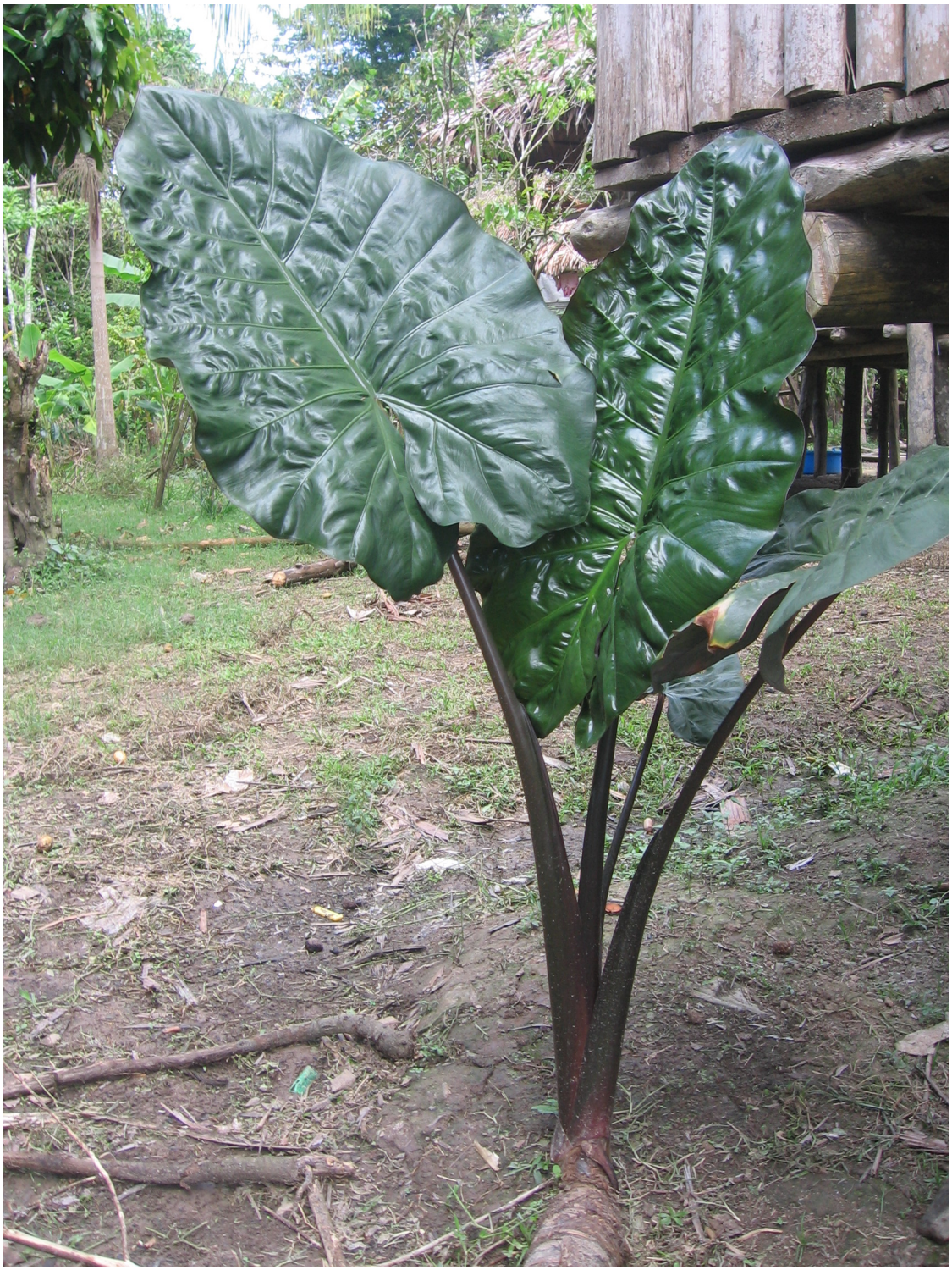

Figure 2. Patiquina negra (*Xanthosoma violaceum*) is another plant kept near entrance ways and homes in the Peruvian Amazon to protect the household from evil spirits or unwanted presences (2009).

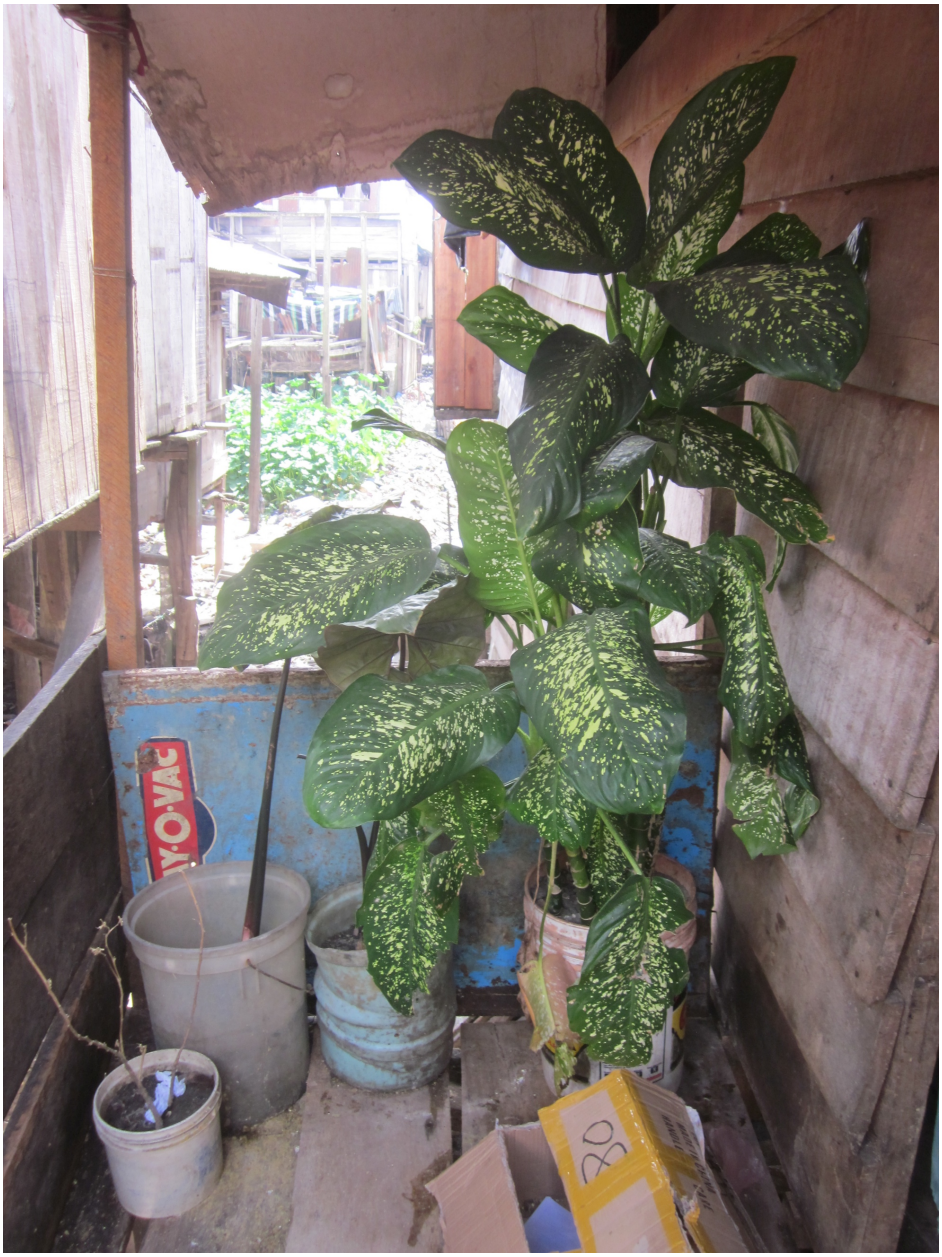

Figure 3. Patiquina verde (*Dieffenbachia seguine*) is often kept in pots or buckets near the entryway of the home in both Peru and Brazil (2015).