CHAPTER 5

Plant Foodstuffs of the Ancient Maya: Agents and Matter, Medium and Message

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From *Fighting with Food* (Young 1971) to *Feasts* (Dietler and Hayden 2001), anthropological literature has long demonstrated the active social role of food, as substance as much as symbol. Foodstuffs create obligation, bind people together, mark differences, ritualize practice, and incentivize social movement. In the ancient Maya area, alongside faunal and mineral ingredients, botanical foodstuffs occupied special positions. Beyond basic nutritional building blocks, plants were active agents in large-scale terraforming projects (Dunham et al. 2009), fickle ingredients in long-distance trade (Batún Alpuche 2009), and central figures in large-scale ceremonial feasts and ritual offerings (McNeil 2009). They were also key players in incantations found in *Ritual of the Bacabs: A Book of Maya Incantations* (Roys 1965 [1779]), a colonial document transcribed from oral traditions. Aside from these loftier stations, even day-to-day botanical activities served to reinforce or overturn social norms through the medium of food collection, preparation, consumption, and conceptualization. Social messages were ingested as much as they were transformed and maintained through ingestion.

In spite of the critical role of botanical ingredients, food studies in the Maya area have tended to focus on durable actors and elements, including faunal remains such as shark teeth and deer bones (see Brown and Freiwald, this volume; Cunningham-Smith et al., this volume), or nondurable actors that nonetheless leave durable co-actors behind, as in the case of ceramics used in salt production (McKillop and Sills 2017). The presumed perishability and thus invisibility of many plant foods has been challenged by a mounting body of evidence in the form of phytoliths, pollen, starch grains, seeds, wood, and even chemical residues (see Spenard et al., this volume). Here, I draw on this diverse set of botanical residues to consider

the doings of plant agents in ancient Maya societies. I use published work by other scholars, as well as paleoethnobotanical data I've collected from multiple sites throughout the Maya Lowlands. Botanical residues reveal that food plants were manipulated for social ends as frequently as they actively manipulated the worlds around them. Drawing from the writings of Charles Saunders Peirce, Marshall McLuhan, and Mary Weismantel, among others, I also consider how foods operated simultaneously as icons, indices, and symbols, often independently of human intentions and sometimes in opposition to them.

Although colleagues and I have previously documented the role of economic plants in ancient Mesoamerican societies, and particularly in Mesoamerican foodways (Farahani et al. 2017; Morehart and Morell-Hart 2015; Morell-Hart 2005, 2011, 2015a, 2015b; Morell-Hart, Joyce, and Henderson 2014; Morell-Hart et al. 2019; Morell-Hart, Dine, et al. 2018; Morell-Hart, Watson, et al. 2018), this review is intended to recast plants as more active players in cuisine, landscape, and society. I foreground the utility of posthumanist approaches in this endeavor. The strength of a posthumanist approach in Maya archaeology is not simply to "add value" to things—such as ancient plant foods—but rather to grant them active roles; to blur the boundaries between strict human and nonhuman categories. Foods and plants represent "a materiality that materializes" (Coole and Frost 2010:9); they are actants "within an agentic assemblage that includes . . . metabolism, cognition, and moral sensibility" (Bennett 2007:145). Such views of food are borne out in evidence from ancient Maya communities as much as from contemporary societies around the world. This framing is complementary to (and sometimes overlaps with) other frameworks such as historical ecology; relational approaches; political economy; and diverse theorizations of landscape, semiotics, and practice. Many of these approaches take for granted the notion that food is more than subsistence; that human-environmental connections are dynamic; and that "people don't eat species, they eat meals" (Sherratt 1991:1).

How Did Ancient Maya People Socialize Food Plants?

When it comes to ancient Maya foods, we cannot even take edibility for granted. "Food"—not simply a biological given—is part social construction, molded by individual tastes and preferences. What is potentially edible is not always regarded as food (Fischler 1980:940; Soler 1997 [1973]:55), and furthermore, what is considered "food" is not always

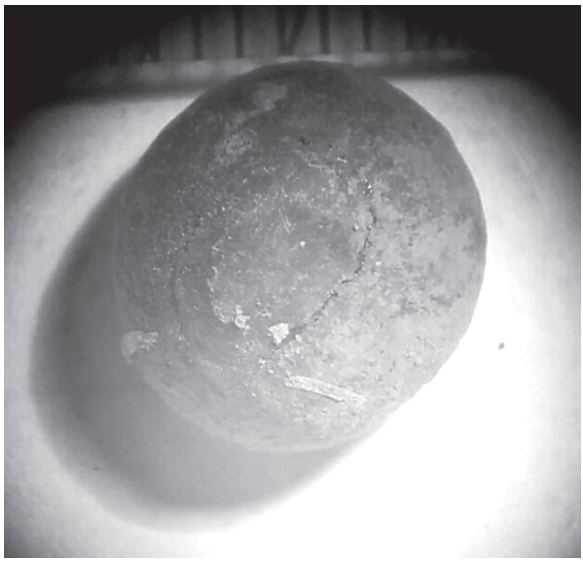

Figure 5.1. *Ramón* (*Brosimum alicastrum*) fruit recovered from the site of Río Amarillo, Honduras. Photo by the author.

technically edible. People throughout the ancient Maya world would have had to negotiate the human "omnivore's paradox," a sort of double bind in which, when confronted with new foods, we are torn between feelings of neophobia (fear of unknown and potentially harmful foods) and neophilia (attraction to unknown and novel foods; Fischler 1980). In the contemporary Maya area, the nutritious and flavor-neutral *ramón* fruit (*Brosimum alicastrum*) is frequently cited as solely a famine food, if eaten at all, while the wicked-looking and stinging *chaya* plant (*Cnidoscolus* spp.) is consumed far and wide. Friar Diego de Landa claimed in 1566 that northern Maya people consumed *ramón* (*ox*) "on occasion," implying some degree of frequency, but to date I have recovered only a single charred fruit out of approximately four hundred samples from across the Maya region (Figure 5.1; Morell-Hart 2015b), while other researchers have had slightly better luck with wood charcoal (Dussol et al. 2017).

What makes some food plants fine to consume and others inedible? That is, if there are unquestioned food taken-for-granteds—the *doxic* marking of food that is "good to think" and "good to eat"—then how did these practices, ingredients, and recipes initially make their way into Maya society? The aesthetics of taste, as Farrington and Urry (1985:154) argue, could be responsible for the first practices of cultivation, a position that runs counter to arguments favoring simple "staple crop" caloric maximization and diet optimization (see Boone and Smith 1998:153). When applied

to the Maya area, beyond obvious condiments such as pepperleaf (*Piper auritum*) and chile peppers (*Capsicum* spp.; Figure 5.2), this raises the possibility that the emergence of key staple crops such as maize, beans, and squash was tied more closely to their flavors than to their caloric content.

Furthermore, what made some food plants prized luxuries, while others languished as unremarkable or low valued? And under what conditions did quotidian foods become highly prized, in some cases becoming sumptuary or commodified? Food plants such as cacao (*Theobroma cacao*) were frequently incorporated into Classic Maya ritual practice and funerary contexts (Beliaev, Davletshin, and Tokovinine 2009; Carter and Matsumoto, this volume; Hall et al. 1990; McNeil 2006, 2009; Prufer and Hurst 2007), as well as widely traded inter- and intra-regionally (Crown and Hurst 2009; Harrison-Buck 2017). Political models have framed cacao as an elite-controlled ritual foodstuff or market commodity (e.g., McAnany 1995), with some limited use as currency (Stuart 2006), while other models frame the emergence of cacao in terms of dowries, bride wealth, and principles of descent and lineage formation (e.g., Harrison-Buck 2017). Such arguments have also been applied to a variety of wetland agricultural commodities (Fedick 2017; Guderjan et al. 2017) that generally receive less scholarly attention. In the case of agricultural surplus products such as maize, some scholars have argued that their value was stored in imperishable tokens and currencies such as jade, copper, and stone axes (Freidel and Reilly 2010:64). Whatever the contingencies, it is likely that

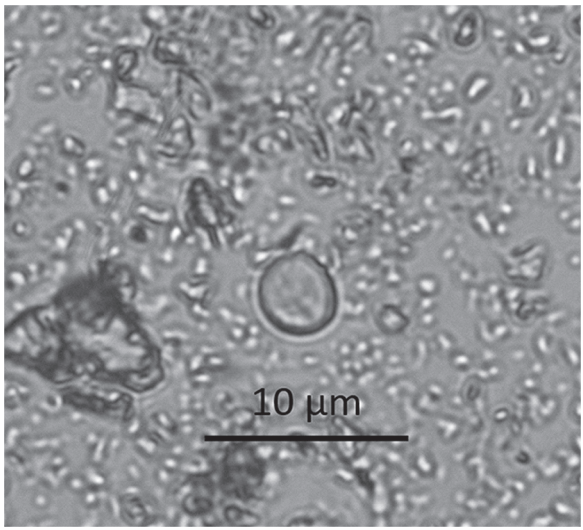

Figure 5.2. Chile pepper (*Capsicum annuum*) starch grain recovered from the sonicated residue of a mano, Piedras Negras, Guatemala. Photo by the author.

Figure 5.3. (L) Nopal cactus (*Opuntia* sp.) edible "pad" (stem) with cochineal insect webbing; (R) crushed cochineal insects and carmine color used in dyes. Photos by the author.

cacao and maize, like other botanical foodstuffs, came to be valued differently from community to community and household to household as they traveled along the numerous pathways described above.

Historically, trajectories of valued plant agents have taken convoluted routes. Although the earliest consumption practices related to cacao in the Formative period seemed to have primarily involved the fruit (Joyce and Henderson 2007), the seed of cacao came to be more greatly prized in later Classic period beverages across the Maya area. (Cacao has been a primary scholarly focus, but similar arguments could be made for maize, perhaps also first consumed in fermented beverages.) Hyperprized food plants such as cacao—operating as gifts, commodities, and trade goods—not only reflected social relations (Graeber 2001; Mauss 1954) but also actively shifted over time. Such shifts could be the movement of staple food to surplus product to regularly traded commodity, or rare commodity to frequently consumed to staple food. These movements were necessarily tied to broader relationships between home gardens and markets noted by Fedick (2017), Sheets (2000), and others.

Beyond their subsistence value, food plants were also critical components in the production of valuable trade products. As documented at Cozumel by Batún Alpuche (2009), various flowering plants (including food plants) were used to attract bees for apiculture, an activity also widely documented in the Maya area in contemporary times (Imre 2010; Rico-Gray, Chemás, and Mandujano 1991; Vail and Dedrick, this volume). This is also the case for the edible prickly pear cactus (*Opuntia* spp.) used in cochineal production (Figure 5.3; Baron 2018:104; Bricker and Miram 2002).

Whether common or luxury, staple or commodity for ancient communities, in the archaeological record some Maya plant foods appear as more frequent social actors, while others appear much less frequently. A cast of common characters have been recovered from Maya archaeological sites, including staples like maize (Figure 5.4) and fruits such as the *sapote* (*Manilkara* sp.). Then there are infrequent players, as in the case of presumed staple crops such as beans (*Phaseolus* spp.) and presumed luxury crops like cacao (see Fernández Souza, Zimmermann, and Jiménez Álvarez, this volume). There are also surprising absences, such as papaya (*Carica papaya*) and the highly prized vanilla (*Vanilla planifolia*). In some cases, these "absences" are directly related to archaeological visibility. A plant like the vanilla orchid leaves behind no diagnostic phytoliths or starch grains, and has seeds so tiny they would be extraordinarily difficult to recover using flotation or wet sieving. In such instances, valued food plants may be visible if they persist as chemical signatures (see Spenard et al., this volume) or as relict stands of plants that have persevered for centuries (Ross 2008). Such is likely the case with the thick vanilla vines currently growing in profusion around the central cenote of the archaeological site of T'isil (Fedick, Mathews, and Sorensen 2012). Although this type of relict evidence carries its own analytical pitfalls (see Miksicek et al. 1981; Ross 2008), sometimes it may be the only evidence available for the ancient cultivation and use of otherwise invisible plants. For extended discussions of botanical residue

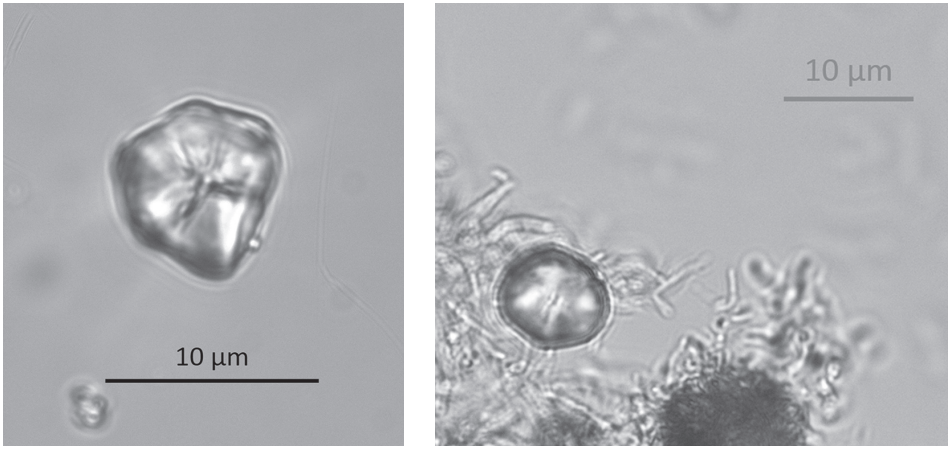

Figure 5.4. (L) Maize (*Zea mays*) starch grains recovered from the sonicated residue of human tooth calculus (Piedras Negras, Guatemala) and (R) the sonicated residue of an obsidian blade fragment (Río Amarillo, Honduras). Photos by the author.

preservation and archaeological visibility, see Miksicek (1987), Pearsall (2015), Piperno (2006), and VanDerwarker, Alvarado, and Webb (2015).

The variation in botanical visibility nonetheless belies the values some plants carried and the extent to which Maya people actively negotiated their social and natural environments to incorporate novel plants into their foodways. However much a given food plant was prized, we see a complicated dance between perishability, processing regimes, geographical habitat, relative shortages and harvest quantities, the value of food plants in local cuisines, necessity in ritual practices, modes of transport, distances to market, and prices of acquisition. The values of individual food plants thus represented heterogeneous socialization across diverse contexts and with diverse actors; they were not a roster of intrinsic values that were defined homogeneously across ancient Maya marketplaces.

How Did Food Plants Socialize Ancient Maya People?

To turn the coin: how did food plants socialize Maya people? Posthumanist approaches that foreground the agency of plants prove helpful in such understandings. If we follow the arguments of scholars like Michael Pollan (2001:xiii), food plants such as maize have used human societies for millennia, effectively domesticating human beings to facilitate propagation: "Through trial and error [domesticated] plant species have found that the best way to [reproduce themselves] is to induce animals—bees or people, it hardly matters—to spread their genes." Such perspectives are in the minority, and in archaeology, only a handful of scholars exploring alternate ontologies have considered plants as actants (e.g., Hastorf 2017:3–4; Van der Veen 2014). More commonly, scholars explore the agency of plants primarily through the myriad ways that people socialize other people using plants. This may take place in the context of politically charged feasting (e.g., Ardren, this volume; Brown and Freiwald, this volume; Dietler 1996; Goldstein and Hageman 2009; Lamoureux-St-Hilaire, this volume; LeCount 2001) or socially charged daily practice (Allison 2013 [1991]; Bourdieu 1984 [1979]; Lentz, Lane, and Thompson 2014). Some scholars in the Maya area have cast the agency of plants in a semi-active sort of way, either as a dynamic factor in daily or ritual life (Morehart and Butler 2010) or as the floral component of an active landscape (Ford and Nigh 2009, 2010). It takes only a small nudge to these arguments to see how—in the household, feast, or landscape—food plants dynamically impacted human societies and were active agents in their own right.

In the broader anthropological literature, we have a robust history of granting agency to nonhuman entities, networks, and assemblages (Appadurai 1988; Hodder 2011; Knappett and Malafouris 2008; Latour 2005; Miller 2005; Taylor 2008). Studies of subsistence are among the easiest and most obvious routes to challenge the exceptionality of human agency, given that eating is shared by all creatures, and all creatures need to eat to survive. Moreover, food is composed of substances that both transform human beings and are transformed by them, in the material sense as well as the symbolic. Foods, plants, and food plants have the power to effect heterodoxy and orthodoxy. People bend over backward to accommodate plants—not only to get them to germinate and survive but to thrive and produce a robust harvest.

What might be the utility of posthumanist approaches in foodways studies generally and Maya plant food studies in particular? First, a general argument can be made for broadening modes of understanding, introducing novel perspectives, and addressing alterity, especially when considering the human as "a non-fixed and mutable condition" (Ferrando 2013: 27). Second, we can consider the breakdown between food technology, matter, and the human self, as Donna Haraway (1991) has done in defining cyborgs and human-technological hybrids. In this case, we could consider the transformation and incorporation of substances such as maize *atole* through consumption (Bennett 2007). Third, following Coole and Frost (2010:7), among others, we can rewrite matter as a process of materialization, not something static, fixed, or passive (Ferrando 2013:27). Similar arguments have been made by Bennett (2007, 2009) in considering the vibrant and even "vagabond" nature of matter, as food "reveals materiality's instability, vagrancy, activeness" (2007:136) through impacts on a broader assemblage of actors and forces—along with transformation through ingestion. Fourth, these attentions to matter allow us to critically evaluate "sustainable" plant food practices in the Maya area, whether in the present or the past. To quote Ferrando (2013:32): "The way humans inhabit this planet, what they eat, how they behave, what relations they entertain, creates the network of who and what they are: it is not a disembodied network, but (also) a material one, whose agency exceeds the political, social, and biological" (similar to Coole and Frost 2010:4 and Bennett 2007, 2009).

These last two points are critical when we consider the relationships between plant foods and ancient Maya communities and our contemporary understandings of sustainability and resilience. In the context of the so-called Maya collapse (Aimers 2007; Wright and White 1996), posthuman-

ist perspectives help us counter Jared Diamond–style narratives—stories that push us toward geographic determinism on the one hand yet a societal "choice" to fail or succeed on the other. Many studies have already countered these arguments, portraying ancient Maya people as neither fallible idiots nor greedy overconsumers in the face of widespread agricultural troubles. Rather, they are shown to be frequently creative and cautious stewards who negotiated forces sometimes outside their control (Fedick 1996; Ford and Nigh 2009; McAnany and Gallareta Negrón 2009; McNeil, Burney, and Pigott Burney 2010).

Maya food plants are well-represented in models of environmental shifts, emergence of food crises, and warfare related to dietary duress (Aimers and Hodell 2011; Lentz 2001; Zarger 2009), but they are generally cast as passive objects manipulated by Maya societies and subject to broader environmental forces. Posthumanist approaches provide complementary and sometimes parallel perspectives. Such approaches foreground crop plants like maize as active actors in broad human-environmental networks instead of isolated dependents on humans or failed agricultural crops resulting from poor human choices. Plant foods are unstable and active materials, entangled in broader foodways and wider environments. Crops are always becoming. Feasts are always becoming. Their materiality is not a product but a process, with a limited fixity that is constantly subjected to environmental and social winds, and simultaneously contributing to socio-environmental trajectories. The search for staple foodstuffs was the impetus for migration, in some cases, while the pursuit of sumptuary foods such as cacao and annatto led to trade and even bloodshed (Caso Barrera and Aliphat Fernández 2006; Kaplan et al. 2017:532). Luxury food plants such as vanilla thus participated in their own materialization, directing human intentions and activities in a number of ways.

Homelands and Botanical Itineraries

Classic Maya plant foods were interconnected with broader ecologies just as assemblages of plant foods can be placed in broader contexts of ritualized activities and quotidian practices. The notion of transported landscapes (Berman and Pearsall 2008; Siegel et al. 2015) represents an excellent example of one way that plants socialized people, who in turn sought to replicate plant relationships in new territories. At the core of this idea is the premise that people re-create homeland environments by moving familiar biota to new habitats, to "produce predictability, ensure comfort, and provide a preferred diet in their new surroundings" (Berman and Pear-

sall 2008:181). In this model, human colonizers transferred "portmanteau biota" (Crosby 1986) from ancestral homelands, along with cultural practices including "plant knowledge, food preparation techniques, and cuisine," and applied these practices to new settings (Berman and Pearsall 2008:182).

Although this phenomenon has been more extensively documented in island contexts such as the Caribbean and South Pacific (Rick et al. 2013), we also have ample evidence of transported landscapes in the Maya area. At the level of individual ingredients, we can simply track the itineraries of various foodstuffs into the Maya landscape. Maize was first domesticated in the Balsas region of central Mexico (Piperno et al. 2009), while domesticated beans and squash have multiple origin points, both in Mesoamerica and South America. Chocolate (*Theobroma cacao*) may have been brought from the Amazon basin to Mesoamerica prior to domestication, then domesticated in Mesoamerica (Clement et al. 2010). Of the palms, the domesticated peach palm (*Bactris* sp.) likely arrived from South America (Clement et al. 2010), while the *cocoyol* (*Acrocomia* spp.) probably came from Brazil (Lanes et al. 2014), and the *cohune* (*Attalea cohune*) seems to have been originally distributed along only the Pacific coast of Mexico and into Central America (Lentz 2000). Three frequently consumed *chaya* varietals, autochthonous as wild versions in many parts of southeastern Mesoamerica, represent domesticated versions that are not only varietals but clones of the same original plant. These *chaya* plants had to be transported directly across the Maya landscape as cuttings, as they only reproduce vegetatively rather than through seed plantings (McKey et al. 2010; Ross-Ibarra and Molina-Cruz 2002). Domesticated *chaya* plants generally have low archaeological visibility, but root material was tentatively identified in raised fields in Belize (Hather and Hammond 1994; Miksicek 1983).

Important root and tuber crops also emerged in other locations and spread to the Maya area. The roles of these crops have shifted in models of Maya foodways, from occasional ingredient (Turner and Miksicek 1984; Fernández Souza, Zimmermann, Jiménez Álvarez, this volume) to a potentially extensively cultivated staple (Sheets et al. 2012). Regardless, increasing evidence indicates their importance in quotidian and feast foods across ancient southeastern Mesoamerica (Bronson 1966; Hather and Hammond 1994; Lentz, Dunning, and Scarborough 2015; Morell-Hart 2011; Sheets et al. 2012; Simms, Berna, and Bey 2013; Trabanino García and Liendo Stuardo 2012; Turner and Miksicek 1984). So where did these starchy ingredients originate? Sweet potato (*Ipomoea batatas*) may have had two separate points of domestication: Mesoamerica and South

America, though these two gene pools subsequently became entangled at various points in human history (Roullier et al. 2013). Manioc (*Manihot esculenta*) appears to have been domesticated in the Amazon basin, the home of its closest wild relative, then moved north (Olsen and Schaal 2001).

Even in this abbreviated list, we see the movement of prized food plants on the landscape into new homes, then the duplication of successful efforts across the Maya region. All of these ingredients, at one time foreign to some part of the Maya area, eventually made their way into the heart (and soul) of the Maya world. Some may have begun as trade novelties and sumptuary items, but eventually many were planted—sometimes as full assemblages of nonautochthonous plants—by Maya people looking to reconstruct homelands both nearby and distant. This recasts food taxa as active agents in the formulations of landscape, effectively bending people to their needs. Humans in these cases served plants by providing free passage and tending to their needs before serving those same plants as food.

Management of Plants and Management for Plants

When novel plants made their way into the Maya area—or autochthonous plants came to be highly prized—people invested heavily in landscape modification and management to make plants comfortable in their homes. Lentz, Dunning, and Scarborough (2015) discuss the construction of plant niches at Tikal through intensive landscape investment, while Ford and Nigh (2009, 2010) have addressed the management of specific wild plant resources through agroforestry and other tending practices. In my own work, I have recovered evidence of nondomesticated species across the Maya area, at the sites of Río Amarillo (Honduras), T'isil (Mexico), and Piedras Negras (Guatemala). Such plant foods have included sorrel (*Oxalis* spp.), *hoja santa* (*Piper auritum*), and various palm (Arecaceae) fruits. Evidence of nondomesticated plant foods has also been documented by other scholars (Lentz et al. 1996) and corroborated by faunal remains of nondomesticated species (Emery 2002). The presence of nondomesticated species in cultural contexts indexes an engagement with the environment that is not predicated entirely on agriculture or even adventitious gathering during hunting and fuel collection. The frequent presence of noncultivated plants indicates that plants sometimes got people to make special trips to collect them.

Beyond moving and maintaining plant ingredients on the landscape, we have ample evidence of ancient Maya people constructing special facilities and tools to support food production, processing, storage, and serving. Plant food storage, as discussed by a roster of authors (Fedick 2017; Lamoureux-St-Hilaire, this volume; Miksicek et al. 1981; Puleston 1971; Sheets 1998, 2000), involved construction or modification of specialized facilities such as underground *chultunes* or aboveground cribs. Some preservation of plant foods required the acquisition of other materials, a few of which (e.g., salt and honey) were costly relative to more distant areas where the food preservation was taking place (Fedick 2017). Other preservation materials were relatively cheap, accessible, and widespread (e.g., wood for smoking), as discussed by Reina and Hill (1980).

Even the most basic kitchen setup would have involved an array of culinary equipment to help process plant foods (Farahani et al. 2017), including obsidian blades, hearths, metates, wooden implements, gourd containers, and ceramic vessels. Plant foods pushed people to mold ceramics for particular purposes—frothing chocolate, grating salsas, serving maize tamales in royal courts, and warming tuber soups (see Ardren, this volume; Simms et al. 2013). Plant foods also required people to be particular about obsidian blades, a type of kitchen tool that was ubiquitous across the Maya area and used by all social classes, though obsidian is found as a resource in only a few regions. Moreover, preparing plant foods using all this culinary equipment—from grinding maize on metates, to constructing a stone *piib* roasting pit, to carefully feeding fuel into a three-stone hearth—would have required the training of budding cooks and servers (O'Connor and Anderson 2016).

As Allison (2013 [1991]) has revealed, it's not always a question of socializing people to negotiate food properly, but rather of negotiating food properly to socialize people. Such acculturation through food has taken many forms (Allison 2013 [1991]; Hastorf 2017; Weismantel 1988; Young 1971:41). In the Maya area, learning how to get two snacks out of a single *cocoyol* palm fruit (Figure 5.5), how to nixtamalize maize properly, and how to eat the safe part of the *guapinol* bean pod (Figure 5.6) were all practices that passed on knowledge of plants through formal and informal training. But this training also socialized and acculturated learners in ways that went beyond simply attaching knowledge to plants. Such acculturation inculcated, maintained, or transformed identity through age-appropriate tasks, gender-specific activities, and status-related practices—all tailored to particular plants and botanical foodstuffs. These processes thus impli-

Figure 5.5. Two snacks in one from the *cocoyol* palm fruit (*Acrocomia mexicana*): (L) edible yellow mesocarp (tastes of butter) and (R) hard endosperm (tastes of coconut). Photos by the author.

Figure 5.6. The *guapinol* (*Hymenaea courbaril*) fruit (L) and seed (R). The edible portion is not the pericarp (pod) or the seeds (beans), but rather the edible powdery pulp. It tastes somewhat of yeast, lending it the English name "stinkingtoe." *Guapinol* trees currently grow near Copán, Honduras, and one seed has been recovered archaeologically by Guy Hepp at the Formative period site of La Consentida in coastal Oaxaca (Bérubé, Hepp, and Morell-Hart 2020). Photos by the author.

cated plant foods themselves as actants in the human performance and interpretation of identity.

How Did Maya Food Plants Operate as Media?

As many scholars have demonstrated, the selection of plant foods for ancient Maya people went beyond personal preference or biological necessity to encompass an array of social dimensions. So what sorts of things do we see "written" in the food medium instead of paint or stone? Food plants were loci that encoded multiple shifting messages, in a heterotopic sense (Foucault 1986). Maya plant foods were used in ritualized practices as well as in quotidian meals, with differences marked in temporality, context, and assemblage. For example, although compositionally almost identical, corn tortillas and corn tamales occupy very different positions in terms of form, manner of preparation, labor invested, and symbolic importance (Brumfiel 1991; García Barrios 2017; see also Carter and Matsumoto, this volume). Maya food plants bore different messages in sometimes identical matters, whether or not these matters were interpreted the same way over time or space, or from individual to individual.

David Sutton (2001:5) claims that "anthropological work has produced a broad consensus that food is about commensality—eating to make friends—and competition—eating to make enemies." As Young (1971) and Weismantel (1988) point out, food, and by implication the labor connected with it, holds potential as a means of social control and social mediation. Relations of domination and resistance can be expressed through food practices, just as food symbols can be used in ideological discourse.

In the Maya area, feasting is the most common route to explore commensality and ideology in the food medium. Many scholars start with the work of Michael Dietler (1996), who categorizes different feasts by the most prominent role that each plays: entrepreneurial feasts (empowerment), patron/role feasts (legitimation based on quantity), and diacritical feasts (legitimation based on style). As Linda Brown and Andrea Gerstle describe in their discussion of feasting at Joya de Cerén (2002), the creation of a feast has very recognizable material correlates. It takes special objects and spaces to prepare and present necessary feast items, not just specialized foodstuffs. In other ancient Maya communities, these aspects may have played into maintenance of relations, transformations of relations, and the general movement and shoring up of social capital (see Ardren,

this volume; Brown and Freiwald, this volume; Lamoureux-St-Hilaire, this volume). At the household level, this could have been expressed in the form of preferential seating; earlier serving; more numerous courses; or serving food that was expensive, labor-intensive, or more concentrated (following Appadurai 1981). For the Maya area, Reents-Budet (2006:202) has even gone so far as to call banquets "the cornerstone and focal point of an elite economic system based on feasting with its concomitant gift giving that included both basic commodities and luxury goods."

Feasting took place in all sectors of ancient Maya society, but it varied in terms of opulence and scale. Regardless, the plant foods incorporated into the feast—from achiote to maize—would have been the medium through which relations were maintained or transformed, and social capital would have been amassed. It is no accident that foodstuffs are almost ubiquitous in scenes of courtly Maya life (Figure 5.7). Such scenes frequently depict maize tamales on platters, drinks served in cylindrical vessels, and additional unmarked foodstuffs. These provisions were placed adjacent to and underneath royal benches, perhaps as welcoming snacks for visiting dignitaries but likely also as conspicuous markers of abundance.

Food was also a dynamic medium in more spiritual matters. As Appadurai (1981:496) notes, food is sometimes thought to be "the fundamental link between men and gods." In the Maya area, plant food offerings were a common part of ritualized practice in pre-Columbian times (Brown and Gerstle 2002; McAnany 1995; Morehart and Butler 2010; Spenard et al., this volume) as much as in historic and contemporary times (Caso Barrera and Aliphat Fernández 2006). In the sacred *Book of Chilam Balam of Chumayel*, the sweet potato is identified specifically as an item among the four sets of objects belonging to the "Four Quarters of the World" (Roys 1967 [1933]:63), suggesting its importance in the cosmological as well as the quotidian realm. Included in Landa's list of flora ingredients are *Lonchocarpus* roots used in the preparation of *balche'* drinks for ceremonies (see also Vail and Dedrick, this volume). *Sakha'* is used as a spiritual drink "for a wide variety of ceremonies such as field clearing, sowing maize, maize growing, watermelon ceremonies, sowing beans, harvesting of honey, hunting, bad winds, and new house dedication" (Gabriel 2004:160, cited in Hull 2010:246). Work at Colha (Powis et al. 2002) and Río Azul (Hall et al. 1990) has confirmed the use of cacao in ritualized practice through residue analyses of several burial-context vessels. Various authors (Brown and Gerstle 2002; Brown and Freiwald, this volume; Hall et al. 1990; Morehart 2001, 2004; Powis et al. 2002) have identified a number of plant food taxa acting in ritual contexts outside of burials, including cacao, achiote,

squash seeds, palms, and maize. However, although their presence indicates their special importance in Maya foodways, like sweet potatoes, all these plants were also commonly consumed. Moreover, food plants acted in ritualized practice in a number of ways (buried with the dead; burned in offerings; invoked in *Ritual of the Bacabs*, the sacred Maya text transcribed in the eighteenth century) but were not necessarily physically consumed by participants (see Morehart and Butler 2010 and the "fourth obligation"). In all of these cases, plant food was a medium through which the living communed with the supernatural.

Ingesting hallucinogenic plants would seem a more obvious medium through which to commune with the divine, but actual botanical evidence of such plants remains scant in the Maya area. Hallucinogenic plants such as the water lily, jimson weed, and the morning glory may have been used, but in spite of optimism expressed by some scholars (Dobkin de Rios 1974), the botanical evidence remains scant (though see also Spenard et al., this volume, on chemical signatures of *Datura*). To date, no macrobotanical or microbotanical elements with hallucinogenic properties have been recovered in the detritus of ritual contexts. However, tobacco (*Nicotiana* spp.), a plant with limited psychoactive properties, makes an occasional appearance at lowland Maya sites (Dedrick 2013) and nearby (Morell-Hart, Joyce, and Henderson 2014; Morell-Hart et al. 2019). Tobacco, though primarily inhaled through smoking, was also ingested as a tea (see below) and has been cited as a medium of magical protection when applied to tamale pots "to ensure that the food turns out well; if not, it is said that half of the tamales will come out well-cooked, while the other half remains raw" (Groark 2010:20).

We can also consider how social meanings were invoked differently through different senses, using a variety of substances and materials (Hastorf 2017; Hurcombe 2007; Ouzman 2001; Sutton 2013). Some scholars highlight the importance of the sight, smell, and taste of food, which can draw out the senses and generate remembering (Hamilakis 1999; Sutton 2013). Yannis Hamilakis has emphasized the importance of studies of food aesthetics, as "food consumption is primarily an act of incorporation which involves emotions, pleasures and feelings" (1999:39). Plant food aesthetics in the Maya area took on many dimensions. We could consider the seasonings and condiments used to flavor foods, and the specific pungency of some plant foods such as epazote (*Chenopodium ambrosoides*) or achiote (*Bixa orellana*), documented at sites such as Copán (Lentz 1991b), Joya de Cerén (Brown and Gerstle 2002), and in my own work at Piedras Negras. Olfactory sensations would have included the scents of

a

b

c

d

Figures 5.7a–d. Courtly scenes featuring plant foodstuffs, from rollout images of Classic period cylindrical vessels. Opposite, from top to bottom: Figure 5.7a, K1775: ruler receives offerings in the form of vases and bowls, tamales are underneath/next to thrones; Figure 5.7b, K8001: two panels with rulers on thrones, tamales are underneath/next to thrones; Figure 5.7c, K504: lord presents offering in vessel to deities, and maize tamales and *atole* are represented, with other foods depicted underneath/next to thrones. Above: Figure 5.7d, K2914: ruler with attendants, holding flowers, perhaps in marriage negotiation, and the tribute underneath/next to throne includes three bags of cacao beans. All images by Justin Kerr, used with permission.

food cooking, the smoke of the hearth fire, and the smell of freshly sliced guavas. Frequent sounds would have included cacao beans cracking as they toasted, maize being ground on the metate, and beans bubbling over the hearth. Such smells and sounds may have symbolized special occasions, produced slightly altered states, or simply indexed "home."

Across the board, it is evident that plant foodstuffs served as distinct media and sometimes the singular medium to convey a variety of messages—from person to person, household to household, community to deity. Plant food was a medium that connected Maya people directly to the divine, along with bloodletting, and it was the medium through which Maya people communicated with the dead via their offerings. Botanical foods and drinks were social lubricants that were shared, sometimes binding people together and sometimes asserting differences (see Ardren, this volume; Brown and Freiwald, this volume; Fernández Souza, Zimmermann, and Jiménez Álvarez, this volume; Hendon, this volume). Plant

food was the means through which economic and social capital could be shored up and spent. These foods encoded the same messages of power, authority, and identity as those etched into stelae, but were directly served and consumed in feasts and other ritualized events. Quotidian foods also regularly conveyed social messages, in some cases more durably than infrequent ritualized practices, effecting social reproduction through diverse plant food media. The frequent reproduction of plant recipes conveyed social messages through multiple senses, before and after the plant sustenance was fully ingested.

Like the differences between messages transmitted in portable ceramic versus those in planted stone, critical distinctions existed between the plant medium and other types of media in portability, durability, replicability, and visibility. With botanical foodstuffs, in particular, perishability and edibility of edible matter are additional critical qualities under consideration, to understand the active role of plants as icons, indices, and symbols. Moreover, beyond simply the medium, plant foods frequently served as messengers, as more direct and iconic markers of sociality. I make this distinction in spite of Marshall McLuhan's caution that "the 'content' of any medium is always another medium" (2003 [1964]:19). That is, you can say some of the same things as when using other media, but sometimes the medium itself is the message. Just so with ancient Maya plant foods.

How Did Maya Food Plants Operate as Messages?

In the Maya area, food plants acted as messages in a number of assemblages. Building agricultural terraces, digging canals, fertilizing sediments, and raising fields (Fedick and Morrison 2004; Miksicek 1990) were practices with obvious end goals that served humans and plants alike. But these efforts also served as narratives of labor organization, whether to reinforce social affiliations, social obligations, or social hierarchies. Similarly, feasts delivered a payload of delicious foods, but as with large-scale terraforming, required social cooperation and social buy-in, or social coercion and force. At face value, feasts were measures of commensality and social saliency, and agricultural terraces were useful features to produce food plants, but each also represented labor investment, value encoded and symbolized through practice. Food plants were the primary movers in each of these cases, as both the motivators for, and the medium of, sociality. So, although large-scale agricultural endeavors and large-scale

feasting events had end goals—terraces for food crops and feasts of food crops—ultimately it was participation in collective labor that delivered the messages to Maya people.

The Maya feast sometimes served as the medium, as described earlier, but also acted as the message itself, both in terms of the entire plant food assemblage and the individual food plants served. Particular botanical commodities and difficult-to acquire luxury foods communicated messages of social distinction (Bourdieu 1984 [1979]; Sutton 2013). Messages encoded in trade plants such as cacao or annatto would have been available to some folks and not others, given the uneven distribution of these plants (similar to arguments made by Henderson and Joyce [2006]). Dorie Reents-Budet (2006) describes the drinking of cacao-based beverages represented in Maya ceramic scenes as key parts of social and political life, especially in the context of the feast, which differentiated social class and special occasion. Particular plant ingredients found in a community may have been available to some households and not others, as David Lentz (1991b) and Julia Hendon (this volume) describe (see also Fernández Souza, Zimmermann, Jiménez Álvarez, this volume, and similar arguments about fauna by Masson et al., this volume). Such studies demonstrate the different scales of social difference conveyed through the plant messages ingested or simply observed at a remove. As Christine Hastorf (2017:7) affirms, "Food—the material and the idea—is an ethnic marker, a group identifier, and a medium for exclusion and inclusion."

How were different meanings expressed differently by Maya people through various plant foods? Writings on ceramic vessels sometimes prescribe food contents (such as atole) as well as spell out practices ("implement for drinking"; Helmke et al. 2017). "Intended contents" marked on vessels (Helmke et al. 2017:17) might be contrasted with unintended consequences, such as the ideological reinforcement of maintaining particular vessels for atole or reserving frothed chocolate consumption for royalty. Hull (2010) addresses representations of tortillas and tamales, and how they are marked differentially on ceramics based on content. He argues that the pairing of "water" and "tamale" is a stand-in for "bountiful times" in augury (Hull 2010:237). Stephen Houston and Karl Taube (2001) have also made ample arguments about the role of maize as represented epigraphically and iconographically. Taube (1996) further addresses the many ways that plant food symbols were mobilized in ideological discourse, as in the use of maize and general agricultural fertility iconography to solidify trade networks and consolidate power.

Even tobacco, not usually considered a food plant, has been documented

to have been chewed, drunk, and eaten; added to water or cane liquor; and consumed as medicinal tea (Groark 2010:14). The use of tobacco snuff, held as a quid in the cheek or on the tongue, has been described as "eating" (Groark 2010:9). As Kevin Groark (2010:11) documents, tobacco (*Nicotiana tabacum*) is sometimes represented as "elder brother," a botanical helper, due to the effects of his nicotine on fatigue, pain, hunger, memory, mood, and attention. In some cases, tobacco is argued to be personified as the Classic Maya "Old God L" (Carlson 2011). During the Late Classic period, tobacco bottles were traded widely throughout the Maya area, although "perhaps the contents, not the bottles, were the desired trade items" (Houston, Stuart, and Taube 2006:116). Tobacco seeds, though miniscule and very difficult to discover, have been recovered from several sites (Dedrick 2013; Morell-Hart, Joyce, and Henderson 2014).

Moreover, as Houston and Taube (2000:271) note, "Throughout Mesoamerica, the dead are 'fed' with fragrance, whether it be in the form of incense, flowers, or the aroma of cooked food. . . ." Thus, "rather than eating actual food, the spirits consume the breath or aroma, whether of food, flowers, incense, or blood" (Taube 2004:73). Freidel and Reilly take this a step further, claiming that in the broader cosmology of Mesoamerica, "everyone was made of the same material: maize, the flesh of god." By extension, then, "the quotidian work of ordinary people: planting, cultivating, harvesting, storing, cooking, eating, weaving, modeling, and carving, were all expressions of the same creation" (Freidel and Reilly 2010:636). This is echoed in Hastorf's (2017:6) statement that ". . . meals are not just cultural events, they are also agents; they are techniques of the body and exist through meaningful practices that get carried along through bodily repetition and memory." Ritual and quotidian foodstuffs alike invoked memory; conveyed meaning; and instantiated, maintained, and transformed identities in relation to spiritual matters.

The passing on of recipes and the reproduction of meals may also have reconnected consumers to their lineage while incorporating heritage into their bodies (Hastorf 2017:235). The study of isotopic signatures has made it abundantly clear that we embody what we eat. The inscription of plant foods into the human skeleton has been well documented in the Maya area through isotopic work (Gerry 1997; Reed 1999; Scherer, Wright, and Yoder 2007; Somerville, Fauvelle, and Froehle 2013; Whittington and Reed 1997). The bioarchaeologist's act of reading isotopes of plant foods such as maize, beans, agave, and cacti shifts these plants from food media to dietary messengers. Nitrogen and carbon isotopic signatures become an index of social inequality, of shifts in Maya dietary regimes over time,

of resiliency of Maya populations to environmental and nutritional stressors, and of dietary heterogeneity in elite subsets of Maya communities. These readings of isotopic signatures transform the Maya consumers themselves into media—into the canvases upon which food plants have scrawled their signatures.

How Were Ancient Maya Food Plants Matters Beyond Subsistence?

In a survey of communities across the Maya Lowlands, we find that people have very different perspectives on plant foods in terms of their flavors and even basic edibility. What is considered only a "famine food" or "cattle food" in some locations (e.g., the undisturbed *ramón* fruits in Naranjal, Mexico) becomes a contemporary resource for optimizing nutrition and marketing new foodstuffs in another (e.g., packaged *ramón* cookies in Copán, Honduras). Just as most of us would be hard-pressed to reduce the entirety of our diet to nutrition-optimized protein shakes, so people in the past opted for particular foods beyond the need to simply maximize calories or reduce food risk (in the sense of Bettinger 1991).

In rewriting matter as a process of materialization, and given the "vagabond" nature of matter (Bennett 2007), we are pointed toward semiosis—both the role of food matter in meaning-making and the role of meaning-making in construing "food." What we consume is not just calories and flavors. We ingest signs, which is where the work of Charles Saunders Peirce proves helpful. As Peirce defined it, "a sign is anything, of whatsoever mode of being, which mediates between an object and an interpretant; since it is both determined by the object relatively to the interpretant, and determines the interpretant in reference to the object, in such wise as to cause the interpretant to be determined by the object through the mediation of this 'sign'" (Peirce and Houser 1998:410). This relationship encapsulates the spirit of the posthumanistic approach to the assemblage, yet foregrounds meaning in human worlds. Peirce's detailed explorations of different signs are useful for defining and positioning icons, indices, and symbols (Peirce and Houser 1998; Peirce and Wiener 1958) in broader assemblages and networks of matter and materialization.

Examples from elsewhere demonstrate the utility of this approach. Andrea Adolph (2009:163), in her portrait of foodways during World War I, elucidates coping mechanisms employed by desperate British cooks who found themselves short on supplies. In one example, she describes the "culinary trickery" of substituting fish with Jerusalem artichokes and an-

chovy paste. Such culinary swapping, here called "making do," emerges as a dynamic interplay between culinary expectations and subversive everyday tactics. Foods were made to be iconically similar to missing ingredients, indices of kitchen craftsmanship, and symbolic of times when sumptuous meals were more the order (a sort of "remembrance of repasts"). Similarly, Mary Weismantel (1988) has described the ways that food symbols can be used to resist or assimilate dominant political modes that marginalize certain identities and privilege others. As she notes, the use of rice in place of barley on an Andean plate can be a sign of socioeconomic affluence, a meal's "starch," household struggles between mothers and children, globalization of available products, dominant Hispanic ideologies, resistance to and assimilation of these ideologies, ethnic positioning, and flavor preferences—any of which is either contested or taken for granted in a given meal space.

Plant foods in the ancient Maya area occupied all of these roles, operating as signs and substances both. We see many courtly scenes depicted in ceramics and murals where dishes are placed near the throne or bench of an important Maya personage (Reents-Budet 2006; see Figures 5.7a–d). Many of these dishes contain tamales, and some liquid chocolate; while others contain unknown foods and beverages hidden in jars, platters, and bowls (Beliaev, Davletshin, and Tokovinine 2009; Helmke et al. 2017; Stuart 2006). Were these iconic representations of courtly performance (McNeil, Hurst, and Sharer 2006)? Indices of wealth and abundance? We see no scenes depicting large food stores, contrary to the phenomenon of conspicuous food store displays frequently documented in Mississippian sites (Blitz 1993) and Inkan sites (D'Altroy 1985). Outside of the Maya area, conspicuous stores indexed wealth, symbolized moral rectitude (similarly to Kahn 1986), or indicated divine favor. Even rapidly abandoned Maya sites with ample evidence of small-scale food storage do not show evidence of conspicuous food stores (Inomata and Stiver 1998; Lamoureux-St-Hilaire, this volume; Sheets 2000). It may be that nearby maize and manioc fields (Sheets et al. 2012), though not represented in Maya courtly art, instead served as conspicuous enough signs of "food in the bank."

In other semiotic matters, we see the naming of Maya people with plant foods, as exemplified in the stunning murals painted on the exterior of a Calakmul pyramid (Carrasco Vargas, Vázquez López, and Martin 2009). Glyphic descriptions and representations of figures labeled "maize-gruel person," "maize-bread person," and "maize-grain person" demonstrate identities at least temporarily wrapped up in foodstuffs. These Calakmul

Figure 5.8. Rollout image of Classic period cylindrical vessel (K1092), depicting an event with a pulque-marked vessel and a drunk man marked as "the pulque one" supported by two other figures. Image by Justin Kerr, used with permission.

figures may have been attached specialists, temporary purveyors of feast foods, marketplace vendors, or generalized representatives of common roles—that is, icons, indices, or symbols of plant food practices. Maize and cacao are also incorporated into Classic period titles (Hull 2010:250)—for example, "he of new corn" for a ruler from Xcalumkin or "he of cacao" in the title for a scribe at Itzimte. A drunkard in one famous scene from a Classic period ceramic vessel was even identified as "the pulque one," simply translated as "drunkard" (Figure 5.8; Hull 2010:250, referencing Houston, Stuart, and Taube 2006:194). This clearly inebriated figure was made iconically similar to a drunk person, indexed drunkenness, and was marked with "the pulque one" symbol. Getting at the very core of humanity, in the *Popol Vuh*—the sacred origin text transcribed in the seventeenth century—the current race of human beings is represented as crafted of maize by the gods. This narrative transforms human beings into icons of maize plants, indexes the close relationship between maize and human life, and symbolizes core cosmological elements related to agricultural practices.

Along with the Maya use of plant foods in spiritually and emotionally charged ritual signification, quotidian practices carried their own weight. It is in the ordinary and unremarkable that social messages, taken for granted, are passed along without comment and reproduced without challenge. That is, foods are often "unmarked," a naturalized part of the everyday (similarly to Bourdieu 1984 [1979]). As Weismantel (1988:7) claims, "It is because they are ordinarily immersed in everyday practice in a material way that foods, abstracted as symbols from this material process, can condense in themselves a wealth of ideological meanings." As previously

noted, tortillas and tamales—both made with maize dough—occupied very different roles at different points in time, in terms of form, manner of preparation, labor invested, and symbolic importance (see Carter and Matsumoto, this volume). Daily messages were encoded in storage and cooking and were read in the needs of crops for water, weeding, and fertilizer. Such food practices went without saying because they came without saying, to paraphrase Pierre Bourdieu. Residues of plants recovered from Río Amarillo, Piedras Negras, and T'isil consistently represent a spectrum of wild and gathered plants, indexing regular and common visits to wilder zones or fallow areas (Morell-Hart 2005, 2015b; Morell-Hart and Dine et al. 2018, Morell-Hart and Watson et al. 2018). These practices in turn may inculcate notions of landscape as William Hanks has described them in Yucatec Maya communities (1990; 2017), where language used to describe zones of agricultural practice shifts in relation to notions of place and positionality (deixis). The matter of plant residues indexes the social matters of daily life and does not simply represent the stuff of inert ingredients.

In times of strife, food plants may also have contributed to restoring some degree of normality to displaced Maya families, if cooks were able to re-create treasured and familiar dishes (following similar arguments by Elizabeth Dunn [2018]). Depending on the timing and mobility of Maya families relocating on the landscape, there may have been transportation of home landscapes and ingredients—cuttings of *chaya*, papaya seeds to plant—as well as the transport of recipes and ideas about the symbolic uses of plants and their critical roles as ritual participants. Foods in the Maya area, as worldwide (Sutton 2013), would have encoded cherished memories, symbolized as individual ingredients, specific recipe mixtures, or prominent features of the landscape.

Final Thoughts

From transported landscapes to wars, plants played a dynamic role in the lives of ancient Maya people, a role that goes far beyond basic food ingredients to get at semiosis and sociality. Food plants acted as basic matters of subsistence, as ritual actors, as petitioners to the gods, as players in royal performances. Food plants spurred people to all sorts of action: making, gifting, and trading specific vessels; traveling long distances and spending capital; engaging in trade wars and actual wars (Caso Barrera and Aliphat Fernández 2006; Kaplan et al. 2017).

When we take as given the deep entanglement of plants and people, we position ourselves to understand relationships that are not predicated on the centrality of human lives, actions, and preoccupations. To acknowledge the limits of our persistent perception of things as discrete entities—and understand the scaffolding built on them—is not to deny distributed agency or the potency of an assemblage. A Peircean approach proves helpful in this endeavor, as his work emphasizes the impact of broader contexts on individual practices (Peirce and Houser 1998). Peirce's triadic formulation also provides space for transformation over time by expanding the basic Saussurean dyad of signifier-signified (i.e., form of the concept-conceptualized) and incorporating space for interpretation. This formulation has implications for the ways that plant foods come to be symbolically important, and the ways they acquire positive meanings related to identity, community, and spirituality. The reshifting of plants in broader assemblages can manifest either a larger or smaller constrained repertoire of possibilities—can offer more or less optionality over time.

As Jane Bennett has put it, "to acknowledge nonhuman materialities as participants in apolitical ecology is not to claim that everything is always a participant, or that all participants are alike. Persons, worms, leaves, bacteria, metals, and hurricanes have different types and degrees of power, as different persons have different types and degrees of power" (2009: 108–109). To acknowledge the persistent power of food plants is not to deny the uniquely human experience or the particular effects of human agency. In the same way, to take the human as the analytical focal point is not to deny the persistent power of things. We can still go beyond thinking of food plants as inert symbols, matter, and media to give them their due as dynamic actors, mediators, and messengers. We can understand our human role as diminished in the grand scheme of things. But we can still acknowledge how human actions loom larger in the imaginations of human actors than the actions of plants (growing quietly in a field or resting cooked on a plate). Human relations of domination and resistance were expressed through plant food practices, just as plant food symbols were mobilized by humans in ideological discourse. Studying the deliberate manipulation of such relationships and symbols has fueled much of the critical anthropological endeavor.

Plant foods in the Maya area shifted power relations, operating as both medium and message. A posthumanist yet anthropological perspective in the Maya area can recognize the active position of plants in broad networks without undermining the role of human actors in social inequality. Plant foods were semiotically charged as indices, icons, and symbols.

Plants in the ancient Maya area operated as food media, as the basic matter of subsistence, and as messengers of social relations and sacred meanings. They occupied active roles, as indices of relationships between trade partners, as re-created simulacra of homelands, and as emblems of divine favor. In this way, plant foods were vibrant matters. Without plant foods, alliances could not be cemented, labor could not be amassed, the dead could not be celebrated, the gods could not be fed. In short, posthumanist perspectives allow us to go far beyond the basic matter of Maya subsistence to get at the heart of sociality—through its stomach.

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