Cassava, flour, tucupi and people: mutual becomings in a *casa de farinha*

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ABSTRACT

This article explores the human-cassava relationality that unfolds in a *casa de farinha* located in the quilombola community of Espírito Santo do Itá (Pará). Grounded in ethnographic fieldwork, this text describes the way cassava is processed into flour and *tucupi*, attending to the multisensorial and embodied knowledge that emerges in these tasks. Drawing on feminist material semiotics, most notably Haraway's work on 'companion species', I suggest that the cassava and the people come into being relationally in this space. Such mutual becoming flourishes in multiple ways, constituting collective, individual, and gendered identities. It is further argued that the performances identified are unstable and are, thus, affected by the introduction or removal of artifacts in the *casa de farinha*.

Keywords: Cassava; Flour Mill; Material Semiotics; Companion Species.

Mandioca, farinha, tucupi e pessoas: devires mútuos em uma casa de farinha

RESUMO

Este artigo explora a relação humano-mandioca que se forma em uma casa de farinha localizada na comunidade quilombola do Espírito Santo do Itá (Pará). Embasado em um trabalho de campo etnográfico, este texto descreve a forma como a mandioca é transformada em farinha e tucupi, abordando o conhecimento multisensorial e corporificado que emerge nessas atividades. Inspirado na teoria semiótica material feminista, mais notavelmente no trabalho de Haraway sobre "espécies companheiras", sugiro que a mandioca e as pessoas emergem de forma relacional neste espaço. Tal devir mutual se desdobra de múltiplas formas, constituindo identidades coletivas, individuais e de gênero. Argumenta-se ainda que as performances identificadas são instáveis e são, portanto, afetadas pela introdução ou remoção de artefatos na casa de farinha.

Palavras-chave: Mandioca; Casa De Farinha; Semiótica Material; Espécies Companheiras.

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Introduction

Making a good cassava flour, worthy of being described as '*biscoito*' (biscuit), is not an easy feat. This process cannot be abstracted into clear instructions, and each person has their own way to go about it. Nevertheless, once a nice batch of flour has been toasted, everyone around, both workers and visitors, draws closer to taste it and assess its quality. The yellow and warm flour which sits in a wooden recipient is an open invitation for taking part in this sensorial engagement.

This scene takes place in a *casa de farinha* (flour mill), where around 5 families, connected by kinship or friendship, spend most part of their days. More than a place of work, the *casa de farinha* is a site for continuous social interaction, and identities are at stake. As the cassava changes into flour, starch and *tucupi*[2], the people who take part in this performance reproduce their individual and collective identity. This engagement depends, however, in an intimate and embodied knowledge, which has been cultivated across generations.

In this article, I try to explore the specific human-cassava relations that unfold in this *casa de farinha*, located in the quilombola community Espírito Santo do Itá. Drawing on a short-term fieldwork in the community and inspired by sensibilities from what has been called feminist material semiotics (see LAW, 2019; HARAWAY, 1991; BARAD, 2003), I attend to the co-constitutive aspect of this more-than-human relation. The article suggests that it is fruitful to consider the people and the cassava there as 'companion species' (HARAWAY, 2008), who become with each other. This argument is illustrated through some ethnographic observations that shed light on the ways this relation reproduces and reshapes individual and collective identities in this space.

In what follows, then, I briefly present a historical account of the cassava in Brazil and introduce the site of investigation, Espírito Santo do Itá. After that, theoretical

[2] *Tucupi* (or *manipueira*), as described below, is the liquid that is juiced from the cassava. Although it is poisonous before being properly boiled, it has become an important part of the regional cuisine in Pará (see Picanço, 2018).

and methodological positions are discussed, and I describe the processing tasks that occur in the *casa de farinha*. This ethnographic description is subsequently analyzed in the following two sections, drawing on contemporary literature in social sciences about *casas de farinha*, where an argument is put forth regarding the specific co-constitutive aspect of the cassava-human relations observed. As I suggest, the cassava may allow for individual or collective identities to emerge, and the *tucupi*, which is almost exclusively done by women, allows for an understanding of the way womanhood can be performed in this space, and through which artifacts. Finally, some concluding remarks are presented.

The most brazilian of crops

Cassava (*Manihot esculenta*) is among the most important staple crops worldwide. Its hardy traits and low-cost planting material make it an attractive food source, especially for smallholders (FAO, 2013). In Brazil, this crop also gains a historical and cultural significance, as Conceição (1979) argues: "Cassava is considered the most Brazilian of all economic crops, due to its connection to the historical, social, and economic development of our people [...]" (CONCEIÇÃO, 1979, p. 27, my translation). Cassava was the primary food source in colonial Brazil, allowing for the project to move forward without the unsustainable importation of foodstuff from Europe (AMARAL, 1958; AGUIAR, 1982).

Although this root reached its peak in Brazil by the 19th century, slowly reducing in popularity since then, its products are still widely produced and consumed all over the country (PICANÇO, 2018; CASCUDO, 2011). The cultural importance of cassava products, however, is more pronounced in the North and Northeast region, especially in Pará, where the cassava flour, starch and *tucupi* have become essential for the regional cuisine (CASCUDO, 2011). As Picanço (2018) suggests: "[...] nowhere else in Brazil does the cassava complex remain as alive as in the lands and tables of Pará [...]" (p. 85-86, my translation). It is not surprising, then, that the state capital, Belém, has an estimated annual per capita consumption of 34 kg of flour (CEREDA; VILPOUX, 2003 apud CHISTÉ; COHEN, 2011), most of which is produced locally (SALES; MACIEL, 2020).

This regional importance partially overlaps with an often-undermined role that the cassava played in the resistance to the Brazilian colonial project, as it was (and still is) a typical element of quilombos (runaway-slave communities) (GOMES, 2015). As described by Bezerra Neto and Macêdo (2009) in their investigation of eating practices in the quilombos of Pará in the 19th century:

> Cassava flour was so important that runaway slaves, in transit, or without a fixed location, or who could not grow their own cassava, had to use their cunning and their relations to others in order to obtain the flour. A different situation was that of fugitive slaves living in quilombos, who, in addition to hunting, fishing, and gathering forest fruits, had their own crops, including cassava for the production of not only the different types of flour, but also of the tucupi (BEZERRA NETO; MACÊDO, 2009, pg. 4-5, my translation).

This centrality of the cassava in the quilombos also relates to Scott's (2009) argument that root crops play a role in the resistance against state appropriation, since they are: "[...] unobtrusive and could be left in the ground to be harvested at leisure." (p. 190; See also ROMAN; WESTENGEN, 2021).

Currently, cassava is still planted and processed in many contemporary quilombo-remnant communities (e.g., COSTA, 2012; O'DWYER; CARVALHO, 2002; VIZOLLI; SANTOS; MACHADO, 2012) and the sale of cassava products is often their main source of income. This is the case of Espírito Santo do Itá, where almost all community members work with cassava cultivation and processing.

Espírito Santo do Itá is a quilombo-remnant community located in the northeast region of the state of Pará, in the municipality Santa Izabel. Although it is somewhat far from urban centers, the city of Santa Izabel do Pará, which is 20 kilometers away, can be reached by van, bus or motorcycle (the most common means of transportation) in less than an hour. This city is often visited by community members, due to the shops, schools, and the open-air market where the cassava products are sold. In the region, there are also multiple other quilombola or rural communities, connected to each other and to Santa Izabel by a van system.

The community comprises around 45 families, and most of them depend at least partially on the processing and sale of cassava. The processing work is done in the nine individually owned *casas de farinha* (flour mills), which are shared by family members

and friends. There are also two churches (catholic and protestant) and a big concrete house which has been constructed in the past decade and made into the space for the annual cassava festival. The members have a good relation to the neighboring communities, with whom they often have parties and events. Some of the spaces of leisure and social interaction are the small patios in front of the houses, the narrow water channel (*igarapé*) which runs alongside the community land and, most importantly, the *casas de farinha*.

Methods and sensibilities

This article is based on ethnographic observations that were done in Espírito Santo do Itá, during the month of October in 2019. This limited time makes explicit the partiality of the arguments made here, which focus on only one of the *casas de farinha*, the one owned by Cristina and Adelson. They are community members and siblings in their late 30s, who were nice enough to allow me to observe, learn, and participate in their activities. Therefore, this narrative should not stand as a representative of the way the cassava is processed in the whole community. Moreover, as I argued elsewhere (ROMAN; SOUZA, 2020), the community members do not tend to describe their processing tasks in abstract terms, since they are somewhat heterogeneous and there is a level of contingency that does not translate well into clear instructions or descriptions. Therefore, although I inevitably add fixity by translating the ethnographic moments into a text, this is a consequence of the writing apparatus, and it should not be ascribed to the reality explored.

These observations are examined here through concepts from what has been called material semiotics (see LAW, 2019; LAW; SINGLETON, 2004). This movement, which stemmed initially from the interdisciplinary field of science, technology, and society (STS), consists of:

> [...] a set of tools and sensibilities for exploring how practices in the social world are woven out of threads to form weaves that are simultaneously semiotic (because they are relational, and/or they carry meanings) and material (because they are about the physical stuff caught up and shaped in those relations) (LAW, 2019, pg. 01).

By attending to the weaves of materiality, narrative, and performativity, thus, it becomes possible to observe the ways that identities come into being relationally, through contingent but real choreographies.

I am especially inspired by one of its approaches, developed by Haraway (1988, 1991), and later Barad (2003, 2007), which has been called feminist material semiotics. This project brings up the ethical and political aspects of material-discursive practices, and highlights their situatedness (LAW; SINGLETON, 2004; see HARAWAY, 1988). Here, I draw mostly on Haraway's recent work, which attends to the co-constitutive relations between humans and what she calls our 'companion species' (HARAWAY, 2003, 2008). Although the relations between people and animals illustrate her concept more prominently, this term is heterogeneous, and encompasses multiple other entities that come together through meaningful and material encounters (see HARAWAY, 2003). This article is, thus, an attempt to narrate the ongoing encounter between people and the cassava in the *casa de farinha*. In the following sections, I describe the activities that unfold in Adelson and Cristina's *casa de farinha.*

The cassava, *tucupi* and flour

The cassava usually arrives in the *casa de farinha* on Monday afternoons. Due to a decrease in soil productivity and an increase in sales, this cassava which is processed is no longer planted and harvested in the community land. They are bought from nearby landowners, with whom long term deals are made. Therefore, on Monday mornings, some community members visit one of the landowners' cassava patches, harvest the crops, pack them into sacks, and bring them back to their *casas de farinha* by truck or tractor, paid for by the municipality.

The *casa de farinha* where most observations were done has a central location, being close to both community's churches, and it is the first stop the truck or tractor makes on the way back from the harvest. It is owned by Cristina, the community's president, and her brother, Adelson. They live on opposite sides of the *casa de farinha*, and spend most of their days there, either working or relaxing. The rectangular space is

surrounded by half brick walls, apart from one side, whose wall extends from the floor to the ceiling.

The *casa* is inhabited by several objects which are necessary for the processing tasks. The most notable ones are the two ovens, which consist of a large round metal plate supported by a round clay structure. They have been built next to the higher wall, so that on the other side of it the temperature of the fire can be controlled by adding or removing the firewood in two holes in the wall which connect to the oven. In addition, there are: two electric grinders, made of wood, which are connected to an electric outlet through multiple make-shift wires that hang from the roof; a screw press made of metal; a handful of big plastic tanks and barrels; and two *cochos* (a large wooden recipient traditionally made of a hollowed-out tree trunk). Interspacing these mostly fixed objects, there are a dozen of plastic chairs and wooden stools, which move around when needed, and a plastic table, usually supporting multiple mugs and a thermal carafe filled with sweetened coffee.

The *casas de farinha* are individually owned, but they are collectively used by relatives and family members for free. That is, the ownership of the means of production does not seem to generate a socially relevant separation into a small-scale class system. Instead, the distinction which frames the working life is that between the people who own cassava and the workers.[3] The former are the ones that made the deal with the landowners and have a few fixed customers whom they sell their products to. The latter are either hired by the 'cassava owners' for a daily wage or are family members who do not receive direct compensation for their work.

Cristina, who is a cassava owner, starts the peeling task as soon as she gets back from the cassava patch. This activity allows for multiple people to work at the same time, so it usually involves the help of family members, including teenagers and the elderly, and the work of hired *raspadeiras*, who receive a daily wage to peel the cassava harvested by a specific owner. Cristina, as well as other cassava owners, peel their own cassava with

[3] For a more in-depth analysis of ownership relations of the *casa de farinha* and cassava in Espírito Santo do Itá, see ROMAN; WESTENGEN, 2021.

their workers, but once their attention is needed for the subsequent tasks, they let someone else take their place.

Before the peeling starts, a circle of chairs and stools is formed in the center of the *casa de farinha*, and two cassava sacks are emptied in the middle of it. Sometimes more than one circle is formed, when cassava from more than one owner will be peeled at the same time and, thus, the roots should not mix. The *raspadeiras,* family members, and the owners sit in this circle and start peeling the cassava. The skinless cassava is tossed in plastic crates, and the peels gather on the floor, in front of the person peeling, sometimes burying their feet.

The peeling is carried out using a knife or a *raspador* [peeler]. The knife is more popular, since it can be used to remove the ends of the cassava, called *cabeça* [head] and *ponta* [tip], and it is also better for peeling smaller roots. The *raspador*, on the other hand, is more effective when it comes to bigger roots. These tools are individually owned: the *raspadeiras* bring their own knife or *raspador* to the *casa de farinha*; but they are shared once new people enter the circle and others take a break.

This is an extremely social task, and it sometimes seems like the conversations and jokes are almost as important for the cassava to get peeled as the knife or *raspador* themselves. The topics vary, encompassing soap operas, news, funny stories, and gossip. During this task, the pile of cassava and peel become the center of the space's social interaction, and when visitors enter the *casa de farinha* to catch up with the people working there, they usually stand around the circle or, if there is an empty chair or stool, sit down and peel. Teenagers also assist their parents when they come back from school, mostly working on the smaller roots, but they are expected to stand up if there is an adult who would like to peel instead.

Peeling is a demanding task, and it requires attention, but experienced peelers can effortlessly and quickly get through big and small roots. They even flip them in the air after half of it is peeled, so that they can work on the other half more easily. They also use the knives to reach the roots on the floor. After some hours of work, the milk from the cassava makes the hands sticky, and a characteristic but faint smell lingers.

After this task, the plastic crate full of recently peeled cassava is poured into a big basin full of water, where it is cleaned. The roots soak for some time and the basin

is stirred to rinse off any dirt that may have gotten stuck. The piles of peel on the floor are swept into sacks, and the circle of chairs, people, and cassava disperse. The *raspadeiras* do not work on other tasks, so once they have peeled all the cassava, they go home and come back only in the following week or in case another cassava owner hires them.

Once the cassava is clean, it needs to be ground. This task is done in an electric grinder, which was the first electric artifact introduced in this *casa de farinha*. It consists of a declined wooden board which is framed by 1 palm of wooden borders, to prevent the roots from falling on the sides. On the lower end, there is a cylinder which turns quickly and crushes the roots which are pressed against it. This task can be done individually, but sometimes one person fills up the wooden board, while the second one pushes the cassava against the cylinder. Xaboca, a man on his late thirties who works for his sister's husband, does this task very skillfully by himself. He uses the bigger roots to press the cassava, without getting dangerously close to the cylinder. The mushy dough which comes out pours down a big plastic tank which lies under the machine, and as it gets filled up, a hoe is used to stir it.

This artifact requires electricity, which comes in through a wire hanging from the ceiling. In order to start the machine, an exposed segment of this wire needs to be connected to the end of the grinder's wire, which has been shaped into a hook so it can remain attached and hanging for the duration of the task. When it is connected, the machine makes a constant loud noise, which oscillates as the cassava forces the cylinder to slow down as it turns the roots into mush. The sound takes over the *casa de farinha*, and people are forced to talk loudly should they wish to continue their conversation.

The mushy and wet dough in the tank is watered down and stirred, until it is ready to be juiced. A bucket is used to take this mixture to the screw press, located less than a couple of steps away. The press is made of metal, and it is operated manually by rotating a long and removable metal bar. The wet dough is poured on the bottom part of the press and enveloped in a woven plastic sack. The sacks are kept in place by a wooden frame, which is removed once the filled-up sack is closed, and another one is put on the top of it, interspaced by a wooden plank. When there are three sacks on the

press, the top part of the structure is lowered. As the sacks get pressed, a yellow liquid is released, and it pours down a bucket or basin strategically located under the press.

This liquid is called *tucupi*, and it is poisonous, so it should not be drunk before it is cooked. In the bucket or basin, the *tucupi* is left to sit for a few hours. The women are almost always the ones responsible for it, from the moment it gets juiced. They need to keep an eye on it, since the starch which remains in the liquid will decant after some hours, but if too much time passes, they will mix once again and the *tucupi* will be wasted. Therefore, Cacá and Jane, who are married to cassava owners (Gaspar and Adelson, respectively), and Cristina, who is a cassava owner herself, are often checking their *tucupi* by examining the liquid and feeling the bottom of the recipient to see if enough starch has gathered in the bottom. This waiting time also affects the flavor of the *tucupi,* which may vary from sweet to sour.

Following the decantation of the starch, the liquid is filtered using a cloth. It is taken to an outside segment of the *casa de farinha*, where a simple firewood oven is set. The *tucupi* is poured and boiled in a big metal pot, where it is seasoned with salt, *cipó alho* [garlic vine], *alfavaca* [basil], and *chicória* [chicory]. This takes around 30 minutes, but the ideal time is defined by the woman cooking it, who decides when it is done by tasting it. The *tucupi* is, then, filtered once again and stored in two-liter plastic bottles.

The dough which has been juiced still needs to have its starch removed. This task is called *lavar a massa* [washing the dough], and it is carried out on a stretch cloth which is set on the top of a plastic tank. This is an individual and often considered a male task, due to the strength required to do it continuously for hours. Part of the dough is put on the cloth and rinsed with water, which consequently fills the tank. As this happens, the dough is rubbed against the cloth, back and forth, so that some tucupi mixed with starch and water drips down. The process only stops when the water dripping is clear, and the lack of starch can be felt on the dough; both markers which are not easily identified by the untrained eye and hand.

Adelson remarked that although the work is arduous, the cold of the water is enjoyable, as opposed to the warmth of the oven. This is a common comparison, since "washing the dough" and toasting the flour are the most difficult tasks undertaken by the men in the *casa de farinha*. These tasks stand in opposition to the peeling task, which

is done mostly by women (the *raspadeiras*), children and the elderly, and the work women do on the *tucupi*. Far from a fixed structure, however, these divisions are often undermined by the many women who take part in toasting and washing (Cristina being an example) and the men who peel or may eventually work on the *tucupi*.

After the starch has been removed, the dough is once again ground, in the same way described above, but together with a new batch of roots. This is done so that the flour produce still contains some starch (since the dough will not be 'washed' again). This mixed dough is juiced, and then it is ground again, but this time in an electric dough grinder. This separation between a cassava and a dough grinder is only a practical decision, and both grinders could fulfill either function. This second grinder is located near the ovens, and unlike the first one, this structure includes a type of horizontal and squared wooden pestles, almost like drawers, that push the dough against the cylinder without touching it. Since one person needs to move these pestles back and forth, this task requires a second one to pour the dough down the cylinder. This is done very quickly, and unlike most of the other tasks, it does not require a lot of skill.

The thick powder which comes out on the bottom of the dough grinder is ready to be *escaldada* [heated]. Using a metal dish, this powder is thrown on the oven, where it is spread over the metal plate using a tool called *vassoura* [broom]. The handle of the 'broom' is made of wood, while the brush is made of a thick husk. With circular movements, the thick powder is added and mixed with the broom, until the increase in quantity requires a different tool: the *rodo* [squeegee]. This wooden squeegee allows for more precision, and it is better when working with a full plate. A back-and-forth motion is added to the circular one, and this continues until the dough has become a much thinner powder, called flour.

The person in charge of the flour needs to identify the moment it is done by looking and feeling its texture. The newly heated flour is removed from the oven using a metal tin and poured in a wooden-framed rectangular metal sieve, supported on the *cocho*, where the flour finally lands. This thin yellowish powder sits on this wooden recipient until it is ready to go back on the oven to be toasted.

Toasting the cassava is the most popular part of the flour processing. It has an understandable visual appeal to it, since the light flour moves quickly in different

directions, almost falling on the sides, and sometimes, if the skill allows, it is also thrown into the air using the *rodo*, creating a fascinating effect. Debora, a woman in her early twenties who works for her father, Tolete, is extremely skilled in throwing the flour high into the air, and she does this often when she is put in charge of toasting. There is no consensus on whether this maneuver serves a purpose, such as preventing the flour from burning, but it is enjoyed by many.

Even the more basic moves using the *rodo* are difficult. There is a specific rhythm that needs to be learned, and the type of flour and *rodo,* as well as the temperature of the fire, affect this rhythm and require some adaptation. The mistakes made are not so easily forgiven by the flour, and it can quickly get burned or end up clumpy. Noticing when it is toasted is essential, and that is done mostly by tasting it. It is said that very skilled people can do so by hearing the sound the flour makes, but no one in this *casa de farinha* was able to do so, despite their great abilities. The ideal flour is referred to as *biscoito* [biscuit]: bright yellow and crunchy. A good *biscoito* does not go unnoticed, and the workers and visitors often make comments regarding its quality. A bad flour, either clumpy (called 'bigbig', the name of a brand of chewing gum) or burned (called '*podada'*) on the other hand, can turn the person responsible into a target of mockery.

Once the flour is poured back into a *cocho*, where it sits until it is weighed and packed, it becomes a temporary collective snack. People who walk by grab a handful of flour and eat it, sometimes adding a remark on its quality. When it is lunch time, this same flour may come to inhabit the dishes, or it may even be added to their coffee. In the evening, after the work is done and the electric light needs to be turned on, the workers and visitors sit around the *casa de farinha* to talk, drink some beer, and relax. The flour which is still warm in the *cocho* remains part of the interactions, inviting people to snack on it with its enticing smell.

Becoming with cassava

As it can be inferred from the ethnographic account above, the *casa de farinha* where the observations unfolded is inherently social. This position is supported in the

literature, and multiple authors who have explored contemporary *casas de farinha* have remarked their importance in the reproduction of social life (e.g., MORAIS, 2003; ALVES; TOMASI; SAHR, 2011; SILVA; SILVA, 2015; SILVA; ALCIDES; CERQUEIRA, 2019). Indeed, the fact that in many communities this space is called *retiro* [retreat] bespeaks its social relevance (SILVA; SILVA, 2015).

In different regions of Brazil, the *casa de farinha* seems to comprise a privileged site for social investigation. In her exploration of a *casa de farinha* in Monte Santo (Bahia), for instance, Coutinho (2015) characterizes the practices of flour-making as constitutive of the identity of her interlocutors. She further adds that the "Casa de Farinha is a space for sociability, exchange of information on techniques and is the ideal place for carrying out any analysis that deals with reciprocity, solidarity and eating habits [...]" (p. 228, my translation). Furthermore, in Alagoas, Silva, Alcides and Cerqueira (2019) indicate the economic and social importance of the flour and the role of the *casa de farinha* in perpetuating the local culture. Such cultural aspect also become an object of study for Morais (2003), who identifies the emergence of an intense socialization and sharing of beliefs in the *casa de farinha* in the quilombola community Pêga (Rio Grande do Norte).

The *casa de farinha*, thus, seems to draw the attention of social scientists, mainly when it comes to issues of solidarity and tradition. However, this literature often ends up reproducing the nature/culture divide by isolating the social aspects of these activities and leaving the nonhumans, infrastructure, and materiality vital to this space unexamined. It is important to highlight, notwithstanding, that there are some notable exceptions (e.g., VELTHEM, 2015; JACQUES, 2013; PICANÇO, 2018). Jacques' (2013), for instance, attends to the material culture and its lively relations to the quilombolas in the community Cinco Chagas do Matapi (Amapá), as she describes: "The dynamics of the *casa de farinha* involve the circulation of bodies and things, as if it were a dance [...]" (2013, p. 13, my translation). Velthem goes even further, by attending to the agency and corporeality of the artifacts in a *casa de farinha* in Alto Rio Juruá (Acre). She writes:

> Without the action of the artifacts nothing happens and, therefore, it is necessary to consider in this process that the objects are not passive, but display resistance, they are bursting with 'will': the press must 'want' to squeeze the

> cassava dough, the *rodo* must become 'docile'; the oven is the one who 'determines' whether the flour will be good or not (VELTHEM, 2015, pg. 106, my translation).

It seems to be fruitful, thus, to consider the agential choreography of entities that inhabit the *casa de farinha.*

In what follows, I attempt to contribute to this body of literature by introducing sensibilities from feminist material semiotics to an analysis of this space. Such sensibilities, I argue, allows us to shed light on the human-cassava relationality which is central to the *casa de farinha*. From this perspective, I identify in the ethnographic account some ways through which the cassava and the community members come into being relationally, that is, the way they constitute what Haraway calls 'companion species' (HARAWAY, 2003, 2008).

In the past decade, Donna Haraway has written extensively about situated becomings of humans and non-humans, most notably dogs, in naturecultures. As she writes:

> [...] all the actors become who they are in the dance of relating, not from scratch, not *ex nihilo*, but full of the patterns of their sometimes-joined, sometimes-separated heritages both before and lateral to this encounter. All the dancers are redone through the patterns they enact (HARAWAY, 2008, p. 25).

Interestingly, this excerpt has resonances with the 'dance of bodies and things' that Jacques (2013) identifies in the *casa de farinha*, as cited above.

Haraway illustrates her concept in a fascinating narrative about her 'becoming with' her dog, Cayenne. As she states: "We make each other up, in the flesh." (2008, p. 16). It is through this relation that the companions are constituted: "The partners do not precede the meeting; species of all kinds, living and not, are consequent on a subject- and object-shaping dance of encounters." (HARAWAY, 2008, p. 4). This position is developed in conversation with Barad's (2003) concept of intra-action, which is further relevant here. Barad explains that: "It is through specific agential intra-actions that the boundaries and properties of the "components" of phenomena become determinate and that particular embodied concepts become meaningful." (2007, p. 815). 'Intra-actions',

thus, stand in opposition to 'interactions', which presuppose the existence of independent singularities prior to their relations (see BARAD, 2007).

Thinking through these concepts, I suggest that, in the *casa de farinha* studied, it is through the engagement with the cassava and its products (or what Picanço (2018) calls cassava's offspring) that the community members attain an individual and collective identity. In order to substantiate these claims ethnographically, I return to the observations presented above. Three moments are examined: the peeling of the roots, the toasting of the flour, and the toasted flour which sits in the *cocho*. Although they constitute heuristic framings imposed on the phenomenon studied, I believe they illustrate how these more-than-human relations matter to the interlocutors of Espírito Santo do Itá and their cassava.

The process of peeling is thoroughly social: it is done in groups and the interactions between peelers are pivotal to this work. Cacá, who owns some cassava but also works for her husband on the side, considers peeling her favorite task, due to the constant laughter and conversations. This observation is also echoed in Vizolli, Santos and Machado's (2012) study of the quilombolas of Lagoa da Pedra (Tocantins). They write: "During the peeling task, people tell stories and remember old times, which creates a pleasant environment and a moment of relaxation." (p. 600, my translation). Furthermore, since teenagers and the elderly assist in peeling the roots, this activity allows for intra-generational communication. As Linhares & Santos (2014) highlight: "This reunion is marked by the socialization process itself, which even in the face of the transformations experienced in this space is still one of the main characteristics of the *casa de farinha* that remains alive." (p. 62, my translation). This gathering also contributes to the blurring of the boundaries between working and helping or work and play: both dichotomies which do not seem to find much ground in the *casa de farinha*.

In performing this task, the peelers get to know the cassava in a particular way: they make use of their sight and touch to remove the peel, and, in return, their hands and clothes become sticky and marked with a characteristic smell. Jacques' (2013), for instance, emphasizes this multisensorial aspect of the activity, but she downplays its relationality and generative potential. As suggested, these moments of cassava peeling do not only constitute the cassava, but also the circle of peelers, who reproduce their

sociality, strengthen their social bonds (VIZOLLI; SANTOS; MACHADO, 2012) and develop an intimate knowledge of the root. This knowledge is often passed on to the children who sometimes venture out into this task. They are taught the best and safest ways to use the knife and they slowly develop the gaze required to identify rotten roots before their skins are removed. The companionship that emerges here, thus, seems to be characterized by a bodily and sensorial relatedness. The people and the cassava are enacted in the peeling circle through sticky and tired hands, enjoyable conversations, and a lingering smell.

There is also a strong personal character to the way the cassava is enacted in relation to each of the community members. As mentioned, the processing of cassava is hardly ever talked about in abstract terms, and there is no general standard to be followed. Each cassava owner has their own preferences regarding grain size, oven temperature, wetness of the dough, among others, all of which manifest differently in the flour. As it is argued regarding *casas de farinha* in Paraná: "[...] each farmer has their recipe, their logic, their rationality. The farmers have the ability to produce flour that is thinner, thicker, more or less toasted. This identity knowledge is often shared, whether between family members or in neighborly relationships." (DENARDIN; SULZBACH; KOMARCHESKI, 2015, p. 209, my translation). In Cristina and Adelson's *casa de farinha*, this observation also applies and, during the moments of participant observation, even when clear instructions were given, they were often challenged by others.

The toasting process brings the individuality of this relation to the forefront, since it requires a specific embodied skill and knowledge. As Vizolli, Santos, and Machado (2012) point out: "[t]he toasting time (02 and/or 03 hours) is consolidated when, with the naked eye and/or the taste of the flour, the producers consider it to be good. [...] it consists of a practical knowledge in which time (duration in hours), appearance (color, texture), and taste are combined." (p. 604, my translation). Indeed, 'knowing', here, is inherently linked to a corporeal and sensorial 'mutual becoming' (HARAWAY, 2008), through which the person toasting needs to learn to "[...] orchestrate a multisensorial perception" (VELTHEM, 2015, p. 94).

In addition, this engagement with the cassava/flour materializes in the final product, which is publicly assessed by others in the *casa de farinha*, and, in the open-air

market, by the customers. Identities and subjectivities are at stake in this contact zone, and they are reproduced as the flour moves back and forth in the oven. Cacá, for instance, prefers to heat the dough when it is still partially wet, producing a different flour from the one Maria, her sister, makes. Maria follows a very different process and removes the *tucupi* using a cloth, before the press. Their brother, Vadeco, makes a much thinner grain, which is appreciated by him and his customers. These differences matter, not only for the people who make or eat the final product, but also for the ones who take part in this social space.

Both the different processing tasks, and the specific taste of the flour produced, as assessed by others in the *casa de farinha,* are important moments for the performance of an individual identity. This individuality is not grounded in a stable and a priori concept of the self, but it seems to emerge through and with the flour.[4] That is, the contingent and emergent individual identity is manifested and becomes relevant to the people through the potentially incommensurable flours produced.

Nevertheless, there are moments when these incomensurabilities fade, and the multiple 'flours' in the *casa de farinha* become a collective entity. This happens, for instance, when the toasted flour sits in the *cocho*. The warm flour has an agential effect in this circumstance: it invites (see VAN DE PORT; MOL, 2015) the cassava owners, workers, and visitors to snack on it. As argued, after eating a handful of the flour which has just come out of the oven, it is commonplace to assess its quality and, consequently, to become part of the human-cassava relationality which materializes in the flour and in the maker's social identity. At the same time, the flour also becomes a collective entity, drawing everyone close with its enticing smell – an open invitation to taste it. The relationality which emerges here is, thus, not solely about individual identities, but about binding the community members and visitors together.

This is, furthermore, a contingent and situated material agency, which depends on this specific heterogeneous assemblage for its manifestation: the *cocho,* sieve, and other nonhumans also take part in this agential choreography (see CALLON; LAW, 1995). This role the flour plays also relates to the lack of a work/play separation in the

[4] I thank the anonymized reviewer who encouraged reflection on this issue.

casa de farinha mentioned above. The flour which is the outcome of the day's arduous tasks, invites the visitors and workers to taste it and to occupy this space of sociality, even after the sun has set and the work is done.

In reading these few ethnographic fragments through the concepts of feminist material semiotics, I attempted to craft an argument in this section for the generative and intra-active character of the human-cassava relations in the *casa de farinha* studied. I stated that, through a multisensorial choreography, the cassava and flour may become incommensurable, allowing for individual identities to be performed. They may also take on a collective character, affecting the sociality of the space through a contingent socio-material agency. In the following section, I attend to another way this companionship manifests itself: in the women-tucupi relation.

Womanhood and the *tucupi*

As described above, some tasks in the *casa de farinha* have a gendered aspect to them: toasting/heating the flour and washing the dough are considered to be traditionally male activities, and peeling is often seen as female. Nevertheless, there is only one activity that is almost exclusively carried out by women: the processing of *tucupi*. I do not take this to be evidence that a neat gender division structures this space (cf. VELTHEM, 2015), but rather that the *tucupi* has become an important entity in the way womanhood is performed in the *casa de farinha*.

In order to illustrate this position, it is relevant to add a historical aspect to this processing task. The press is a somewhat recent addition to the *casas de farinha* in Espírito Santo do Itá, and some *casas* still have not obtained it. Before the inclusion of this artifact, the dough was juiced using the *tipití*, which can be described as: "[...] an extendable basketry tube made from reed strips, enclosed at the lower end and open at the upper. It is plaited on the bias, which is to say that the two sets of interwoven elements opposed to each other run diagonally in relation to the long axis of the tube." (CARNEIRO, 2000, p. 61). It is operated by shoving the cassava dough inside of the tube and then stretching it using a wooden lever structure.

This artifact has traditionally been operated by women (see also SILVA; ALCIDES; CERQUEIRA, 2019). The same way *raspadeiras* are hired weekly to peel the cassava, women used to be hired to operate the *tipití* and juice the *tucupi*. The justification for the gendered aspect of this task does not stem from a physical difference in strength (cf. BARBOSA et al., 2015) but, as the people in the *casa de farinha* explained, from an essential female skill, a "*jeitinho*" or knack, which allows women to have a better way with it. Operating the *tipití*, however, is a hard task, and women would often have bruises on their legs from the repetitive movement required to fit the dough in the tube. This is remarked as the main benefit of buying a press, so that women do not need to perform this arduous task anymore.

As feminist STS scholars have pointed out, artifacts take part in the way gender is performed (see WAJCMAN, 2000; CROISSANT, 2000). In the *casa de farinha*, there is an ongoing process of gender-in-the-making (see HARAWAY, 1997), and the *tipiti* is central to the way women come into being. With the introduction of the press, juicing the *tucupi* ceases to be an activity through which womanhood is performed, and women lose their particular knack. This does not mean there was opposition to this technological development, or that this change is negative. Instead, this episode highlights the contingent aspect of the choreographies in the *casa de farinha*, which become affected by the inclusion of new entities, producing different people and cassava products.

With the press in place, womanhood became more strongly connected to the processing of the *tucupi*. Cristina, who diligently checks on her *tucupi* to make sure it has not yet decanted, has an intimate connection to the liquid. She prefers the sour *tucupi*, and she knows how much time she must wait to achieve the desired flavor. All the women who work with it have learned the rhythms and temporalities of the liquid; a knowing that is not solely epistemological, but material semiotic. There is also a subjectivity that emerges, since there are specific techniques and recipes, and these differences are important for the women and their customers.

In summary, I argue that, in the *casa de farinha,* womanhood is performed relationally through the *tucupi* and, as the inclusion of the press and exclusion of the *tipiti* indicate, this performance is contingent and somewhat unstable, depending on

specific artifacts in order to come into being. This argument requires a clarification: the focus of this examination on the *tipiti* and womanhood should not be taken to indicate that manhood is a given in the *casa de farinha,* as it also requires specific performances and artifacts. Further investigation should be developed in order to shed light on the way gender-in-the-making unfolds in these spaces and the artifacts involved in these performances.

The case discussed in this section also adds a layer of complexity to the individual and collective identities discussed above, since it makes explicit the potential consequences of introducing new artifacts in this performance. Indeed, another example that could be lifted from the observations is the inclusion of an electric grinder. Although it makes the grinding of cassava much easier, it also hampers the conversations which, as argued, are pivotal to the reproduction of sociality in this space. As artifacts enter and leave the *casa de farinha*, new cassava and people emerge.

Concluding remarks

In this article, I have tried to read the ethnographic material collected in the quilombola community of Espírito Santo do Itá through the sensibilities of feminist material semiotics. This allowed me to focus on the multisensorial relating that takes form in the *casa de farinha*. I suggested that this human-cassava relationality is marked by intra-actions, that is, mutual becomings through which the partners do not precede their encounters. From this perspective, I attempted to describe the specific way this phenomenon unfolds, highlighting that it allows for the performance of both individual and collective identities. I also argued for the importance of the *tucupi* in the way womanhood is performed in this social space. In addition, I drew attention to the contingent character of this phenomenon, which changes as new artifacts are introduced and older ones removed.

Finally, it is vital to emphasize the partiality of this analysis, which stems from a short-term fieldwork. The structure of this article also led the *casa de farinha* studied to be presented as a somewhat independent space, isolated from the broader community, ecology, and economic system. Although this framing allowed for a more

in-depth exploration of this moment of human-cassava relationality, there are important ways broader social forces, such as the market and the government, affect this space and the performances that unfold there, and they require further investigation to be accounted for. Similarly, there is much more to the cassava and its relations to humans that exceeds this narrative. This intra-active touch (HARAWAY, 2008) inherits multiple stories, including those of colonization, resistance, and violence (see AGUIAR, 1982). Cassava does not have an innocent past, but relationality and mutual becoming is not about innocence. As Haraway writes: "Touch, regard, looking back, becoming with—all these make us responsible in unpredictable ways for which worlds take shape." (p. 36). I tried to show here that, in their careful and skilled touch, the interlocutors of Espírito Santo do Itá have found ways to inherit this entangled past and to become responsible for their cassava and its worlds.

References

AGUIAR, Pinto de. **Mandioca**: pão do Brasil. Rio de Janeiro, RJ: Civilização Brasileira, 1982.

ALVES, Ana Paula Aparecida Ferreira; TOMASI, Tanize; SAHR, Cicilian Luiza Löwen. 2011. A Perspectiva etnográfica na identificação e caracterização de elementos cotidianos de uma comunidade quilombola. **Observatorium**: Revista Eletrônica de Geografia, v. 3, n. 7.

AMARAL, Luis. **História Geral da Agricultura Brasileira**. São Paulo: Companhia Editora Nacional, 1958.

BARAD, Karen. 2003. Posthumanist performativity: Toward an understanding of how matter comes to matter. **Signs**: Journal of women in culture and society, v. 28, n. 3, p. 801-831.

BARAD, Karen. **Meeting the University Halfway**: Quantum Physics and the Entanglement of Matter and Meaning. Durham: Duke University Press, 2007.

BARBOSA, Milka Alves Correia et al. 2015. Mulheres e patriarcado: relações de dependência e submissão nas casas de farinha do Agreste Alagoano. In: DENARDIN, Valdir Frigo; KOMARCHESKI, Rosilene (Org.). **Farinheiras do Brasil**: tradição, cultura e perspectivas da produção familiar de farinha de mandioca. Matinhos: UFPR Litoral. p. 109-128.

BEZERRA NETO, Jose Maia; MACÊDO, Sidiana da Consolação Ferreira de. 2009. A quitanda de joana e outras histórias: Os escravos e as práticas alimentares na Amazônia (séc. XIX). **Histórica** – Revista Eletrônica do Arquivo Público do Estado de São Paulo, v. 38, p. 1-9.

CALLON, Michael; LAW, John. 1995. Agency and the hybrid «Collectif». **The South Atlantic Quarterly**, v. 94 n. 2, p. 481-507.

CARNEIRO, Robert L. 2000. The evolution of the tipití: A study in the process of invention. In: FEINMAN, Gary; MANZANILLA, Linda (Eds.), **Cultural Evolution**: Contemporary Viewpoints. New York: Kluwer Academic, Plenum Publishers. P. 61-93.

CASCUDO, Luís da Câmara. **História da Alimentação No Brasil**. São Paulo: Itatiaia Limitada, 2011.

CHISTÉ, Renan Campos; COHEN, Kelly de Oliveira. 2011. Influência da fermentação na qualidade da farinha de mandioca do grupo d'água. **Acta Amazonica**, v. 41, n. 2, p. 279-284.

CONCEIÇÃO, Antônio José. **A Mandioca**. Cruz das Almas: Universidade Federal da Bahia, Escola de Agronomia. 1979.

COSTA, Marcilene. 2012. "Mandioca é coida de quilombola? Representações e práticas alimentares em uma comunidade quilombola da Amazônia brasileira". **Amazônica** – Revista de Antropologia, v. 3, n. 2, p. 408-428.

COUTINHO, Andrea Lima Duarte. 2015. A "feitura da farinha": notas etnográficas de uma farinhada no Alto Sertão da Bahia. In: DENARDIN, Valdir Frigo; KOMARCHESKI, Rosilene (Org.). **Farinheiras do Brasil**: tradição, cultura e perspectivas da produção familiar de farinha de mandioca. Matinhos: UFPR Litoral. p. 219-243.

CROISSANT, Jennifer L. 2000. Engendering Technology, Culture, Gender and Work. **Knowledge and Society**, v. 12, p. 173-191.

DENARDIN, Valdir Frigo; SULZBACH, Mayra Taiza; KOMARCHESKI, Rosilene. 2015. Farinheiras no Litoral do Praná: uma análise a partir da noção de sistema agroalimentar localizado SIAL Farinheiras. In: DENARDIN, Valdir Frigo, KOMARCHESKI, Rosilene (Org.). **Farinheiras do Brasil**: tradição, cultura e perspectivas da produção familiar de farinha de mandioca. Matinhos: UFPR Litoral. p. 197-218.

Food and Agriculture Organization (FAO). **Save and Grow Cassava**: A Guide to Sustainable Production Intensification. Rome: Food and Agriculture Organization of the United Nations. 2013.

GOMES, Flávio dos Santos. **Mocambos e quilombos**: uma história do campesinato negro no Brasil. Editora Companhia das Letras, 2015.

HARAWAY, Donna J. 1988. Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. **Feminist Studies**, v. 14, n. 3, p. 575-599.

HARAWAY, Donna J. **Simians, cyborgs, and women**: The reinvention of nature. New York, NY: Routledge, 1991.

HARAWAY, Donna J. **The companion species manifesto**: Dogs, people, and significant otherness. Chicago: Prickly Paradigm Press, 2003.

HARAWAY, Donna J. **When Species Meet**. Minneapolis and London: University of Minneapolis Press, 2008.

JACQUES, Clarisse Callegari. 2013. Os sentidos da cultura material no cotidiano e na memória das famílias da comunidade Quilombola de Cinco Chagas do Matapi. **Revista de Arqueología Pública**: Revista eletrônica do Laboratòrio de Arqueologia Pública de Unicamp, v. 7, n. 2, p. 7-21.

LAW, John. 2019. **Material Semiotics**. Heterogeneities. Disponível em: <http://www.heterogeneities.net/publications/Law2019MaterialSemiotics.pdf.>. Acesso em: 19 mar. 2021.

LAW, John; SINGLETON, Vicky. 2014. ANT, multiplicity and policy. **Critical policy studies**, v. 8, n. 4, p. 379-396.

LINHARES, Anny da Silva; DOS SANTOS, Clarissa Vieira. 2014. "A casa de farinha é a minha morada": transformações e permanências na produção de farinha em uma comunidade rural na região do Baixo Tocantins-PA. **Agricultura Familiar**: Pesquisa, Formação e Desenvolvimento, n. 10, p. 53-66.

MORAIS, Glória Cristiana de Oliveira. 2003. Para uma possível etnografia da comunidade do pêga (Portalegre/RN). **Mneme**-Revista de Humanidades, v. 4, n. 08, p. 164-182.

O'DWYER, Eliane Cantarino; CARVALHO, José Paulo Freire de. 2002. Jamary dos Pretos, município de Turiaçu (MA). In: O'DWYER, Eliane Cantarino (Org.). **Quilombos**: identidade étnica e territorialidade. Rio de Janeiro: Editora FGV. p. 173-212.

PICANÇO, Miguel de Nazaré Brito. **Na roça, na mesa, na vida**: uma viagem pelas rotas e desvios da mandioca ao fazer-se coisas de comer, no e além do nordeste paraense. Belém: Paka-Tatu, 2018.

ROMAN, Gabriel Graton; SOUZA, Iara Maria de Almeida. 2020. Plantando Mandioca e Criando In/comensurabilidades. **Revista ANTHROPOLÓGICAS**, 24, v. 31, n. 1, p. 141-168.

ROMAN, Gabriel Graton; WESTENGEN, Ola T. 2021. Taking measure of an escape crop: Cassava relationality in a contemporary quilombo-remnant community. **Geoforum** (in press) doi: https://doi.org/10.1016/j.geoforum.2021.10.008.

SALIS, Dione Vieira; MACIEL, Rogerio Andrade. Cultura Material da Farinha na Amazônia Paraense. **Humanidades & Inovação**, v. 7, n. 15, p. 50-66, 2020.

SCOTT, James C. **The Art of Not Being Governed**: An Anarchist History of Upland Southeast Asia. New Haven. CT: Yale University Press, 2009.

SILVA, Maria Angélica da; ALCIDES, Melissa Mota; CERQUEIRA, Louise Maria Martins. 2019. Memórias palatáveis: práticas e saberes na produção da farinha de mandioca em Alagoas, Brasil/Palatable memories: practices and knowledge of cassava flour in Alagoas, Brazil. **Patrimônio e Memória**, v. 15, n. 1, p. 47-72.

SILVA, Cirlene do Socorro Silva; Silva, Maria das Graças. 2015. Casas de farinha: cenários de (con)vivências, saberes e práticas educativas. In: DENARDIN, Valdir Frigo; KOMARCHESKI, Rosilene (Org.). **Farinheiras do Brasil**: tradição, cultura e perspectivas da produção familiar de farinha de mandioca. Matinhos: UFPR Litoral. p. 56-81.

VAN DE PORT, Mattijs; MOL, Annemarie. 2015. Chupar frutas in Salvador da Bahia: a case of practice-specific alterities. **Journal of the Royal Anthropological Institute**, v. 21, n. 1, p. 165-180, 2015.

VELTHEM, Lucia Hussak van. 2015. Homens, mulheres e artefatos na produção da farinha de mandioca no Alto Rio Juruá - Acre. In: DENARDIN, Valdir Frigo; KOMARCHESKI, Rosilene (Org.). **Farinheiras do Brasil**: tradição, cultura e perspectivas da produção familiar de farinha de mandioca. Matinhos: UFPR Litoral. p. 83-108.

VIZOLLI, Idemar; SANTOS, Rosa Maria Gonçalves; MACHADO, Renato Francisco. 2012. Saberes Quilombolas: um estudo no processo de produção da farinha de mandioca. **Bolema**: Boletim de Educação Matemática, v. 26, n. 42b, p. 589-608.

WAJCMAN, Judy. 2000. Reflections on gender and technology studies: In what state is the art? **Social studies of science**, v. 30, n. 3, p. 447-464.