## Cassava Spirit and the Seed of History The biocultural history of a staple crop in Amazonian Guyana

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A Makushi family processing cassava | Rewa, 2013.<sup>2</sup>

Cassava plants, they is people. When you weed your farm, between the banks, the plants are happy now, waving. The weeds are like lice for the cassava, head lice. I come to the farm to weed them; it keeps them happy. They wave now, and say "mummy coming!"

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<sup>&</sup>lt;sup>2</sup> All photographs by Lewis Daly, 2011-13.

The Carib-speaking Makushi people live in the North Rupununi region of southwest Guyana, a biologically diverse mosaic of savannahs, forests, and wetlands located on the most northerly fringes of the Amazon watershed. Numbering around 10,000 people in Guyana, the Makushi have had a long and tumultuous history of contact with outsiders, including Dutch colonists, British imperialists, Brazilian ranchers, Christian missionaries, and, most recently, scientists and conservationists. Today, Makushi communities readily collaborate with visiting researchers in managing conservation initiatives and ecotourism enterprises. However, despite a significant degree of cultural and religious creolisation, the indigenous conceptual system centred on shamanism and the proliferation of spirits in the environment continues to exist.

Between 2011 and 2013, I conducted fourteen months of fieldwork in three Makushi communities. My enquiries primarily concerned local ecological knowledge and human-plant relations. In order to investigate these socio-ecological engagements, I experimented with the methodology of "multispecies ethnography", a mode of enquiry that attempts to look "beyond the human" by tracing lines of interaction across species boundaries (Kohn 2013). Makushi people are expert horticulturalists, in that they utilise specialised knowledge and techniques relating to the ecology of cultivated plants. During my time with the Makushi, I kept a small farm plot where, under the tutelage of local farmers, I was able to experiment with cultivating various types of crop plants. In the following paragraphs, I make a few comments regarding my experiences of conducting ethnographic research with the Makushi, in relation to one particularly pertinent non-human being: the bitter cassava plant.

The cultural history of the Makushi people is intimately entangled with bitter cassava (*Manihot esculenta* Crantz).<sup>3</sup> This staple food crop, known locally as *kîse*, is a mainstay of life for the Makushi, as it is for the majority of the native peoples of lowland South America.<sup>4</sup> Cassava, a perennial herbaceous shrub of the family Euphorbiaceae, is so fundamental to the

<sup>&</sup>lt;sup>3</sup> Also known as 'manioc' in Portuguese and 'yuca' in Spanish. Etymologically, the names manioc and cassava are indigenous South American terms, manioc being derived from the Tupi term *maniot* and cassava stemming from the Arawak *cassavi*, meaning bread (Clement *et al.* 2010: 76).

<sup>&</sup>lt;sup>4</sup> Cassava is the fifth most important food crop in the world, forming the primary carbohydrate source for over 800 million people across the tropics. Genetic analyses have revealed that it was domesticated from a wild ancestor in western Brazil around 10,000 years ago (*cf.* Rival and McKey 2008).

Makushi way of life that it could be said to define the culture more than any other plant. Every facet of socio-cultural life and the conceptual system is inflected with cassava, from its dominion over basic subsistence activities such as swidden agriculture and the processing of cassava roots into foodstuffs to the social exchange networks that employ cassava cuttings as their currency. The woody root crop – containing hydrogen cyanide, and thus highly toxic in its raw state – is particularly resilient, being well-adapted to the extreme climates and poor soil types of Amazonia.

The Makushi economy is based on the complementary interaction of hunting, fishing, and subsistence agriculture. Farming is generally practiced in clearings in the high rainforest. Cast in the light of innumerable shades of green and adorned with flowers and ornamental shrubs, forest farms (mii) are places of beauty in which cross-species relations are forged in the creative processes of shared selfhood. Human beings share this agro-ecological realm with various plants, animals, and fungi, as well as a plethora of invisible and potentially dangerous spirit-beings, including forest spirits (*imawari*), the masters of game animals (*tamona*), and dead souls (*katon'pi*). It is here, within this vibrant domain of "more-than-human sociality" (Tsing 2014), that cassava cultivation is played out and navigated.

Makushi horticulture is characterised by an innate aesthetic appreciation for socioecological diversity. Reflecting this, cassava cultivation is marked by an astonishing varietal diversity. In my host community of Yupukari alone, for instance, my local collaborators and I recorded over 76 varieties of the crop – a number which might be amplified to three or four hundred across the region as a whole. In one particularly impressive farm, we recorded over fifty folk-varieties. The living cassava plant has a distinctive appearance: its large finger-like leaves adorn wiry boughs that spiral out from a central stem. The various cultivars of cassava exhibit considerable morphological diversity, the shapes and colours of the palmate leaves, stems, perioles, and flowers varying greatly between types. The varietal hyper-diversity of bitter cassava far transcends utilitarian requirements, which could be fulfilled with just a few keystone varieties. In light of this realisation, one might ask, why the extraordinary diversity? The maintenance of varietal diversity, in my view, is rooted in the complex interaction of a range of economic, ecological, aesthetic, social, and cosmological factors.



A Makushi farmer and child in their cassava farm (mîî) | Yupukari, 2013

Makushi farmers are extremely knowledgeable about the living properties of cassava plants, and pay great attention to their growth patterns and worldly sensitivities. The crop itself is primarily cultivated for its starchy tuberous roots (*kîse imun*). Like the above-ground elements of the plant, the morphology of the roots is variable: the bark-like outer skin can be tough or flaky, the dermal under-layer can be cream, yellow, red, even magenta in hue, and the interior varies from white to yellow. Via a lengthy and laborious process of detoxification, the toxic, inedible roots are transformed into the most important and sustaining foodstuffs in the local cuisine, including cassava bread (*ikei*), farine (*u'wi*), and cassava beer (*parakari*). In this sense, the bitter cassava plant – the essence of vitality – is understood to "nourish" and reproduce human society.

Cassava plants, however, are far more than semi-inert food crops with nutritional qualities. Rather, they feature in Makushi life and thought as powerful, dynamic living selves, affecting and being affected by humans and other kinds of beings in symbiotic relations. The plants are endowed with a form of vital soul, known as *ekaton* – the same animating essence that makes human beings "alive". In this sense, cassava plants are thought of as non-human persons, and are routinely referred to in subjective terms. As sensing, sentient subjects, they exhibit phenomenal awareness and perceive the world around them: they see, hear, and feel their surroundings.

The personhood of crops exerts great influence over the process of their cultivation. The relationship of nurture between human cultivator and cassava plant is geared not only toward ensuring the basic vegetative growth of the plant, but also, and concomitantly, their wellbeing. Cassava plants must be kept "happy" through constant care and nurture in order to "grow well" and bear large roots. This is why people speak to their crops: they are considered to be emotive and sentient beings. Some farmers recite esoteric spells (*taren*) to their crops to encourage their growth; others may leave offerings or use charms (*muran*) to "bring music" to the newly planted cuttings. The plants speak back, too – usually via the medium of dreams (*we'ne*), where they may appear as human-like persons in order to impart information about their health and wellbeing to their owners.

The human-crop relationship is complicated by virtue of a third relation: cassava plants are "owned" by a powerful spirit known as Cassava Mama. One rainy morning, while I was learning to plait baskets with Uncle Isaac under the shelter of his palm-thatched roof, I asked him about the Cassava Mama spirit. The poetry of his response struck me.

Cassava is a human body; dem plants are people, man. When you see the leaves waving in the farm, that is them waving at you and calling in your spirit. Our belief is that the crops have a master, an unseen spirit. When the breeze is waving the leaves around, that is she. Cassava Mama, Isaac went on to explain, exercises control over the fecundity of the farm and the fertility of plant-life by bringing vitality and "strength" (*meruntî*) to the farm space. The crop spirit, however, is ambiguous in intentionality, simultaneously exhibiting the propensity to promote growth and sustain life whilst all the time threatening to harm and take it away. As is often warned by elders, people should not visit their farms when in a state of ill health, lest the Cassava Mama will be offended and injure those that do so as a punishment. The invisible spirit, so it is said, will "lash" the perpetrator, imparting a whip-like blow which leaves no physiological trace but induces a spiritual malaise and – in extreme circumstances – death.<sup>5</sup>



Cassava roots (kîse imun) | Rewa, 2013

Cassava cultivation, then, is imbued with symbolism and cosmological associations. The crop features in myth (*panton*) perhaps more than any other plant, and can be considered coeval with and integral to the origins of humanity in mythical time. Like a seed of history, cassava was present at the beginning of the world, sustaining the culture heroes Insikiron and Anike, the first human beings to emerge from the primordial chaos. The numerous varieties of

<sup>&</sup>lt;sup>5</sup> The animism of plants in Makushi cosmology must be understood in relation to broader Amazonian themes of Amerindian perspectivism (see Viveiros de Castro 1998). In such cosmologies, nonhuman beings can be person-like subjects capable of communicating with human beings in complex ways.

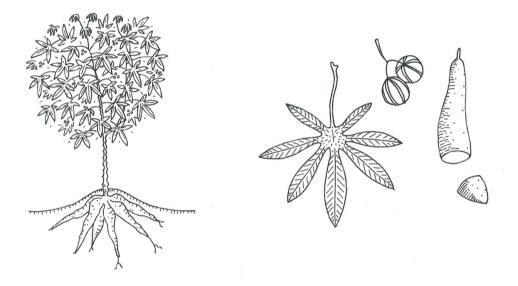
cassava, as told in a famous story, emerged from the mutilated corpse of a monstrous serpent. The giant snake  $(k\hat{i}i)$  seduced a human girl, who later gave birth to a snake-baby. Angered, the girl's brothers killed the serpent in retribution, chopping it into pieces which they buried in a soil grave. Like stem cuttings, the dismembered segments sprouted into the various landraces of cassava plant that exist today.

As well as being rooted in mythic history, cassava also has a dynamic forward-facing orientation. The crop, as politically resilient as it is ecologically and climatically durable, has endured extreme historical vicissitudes by continuously adapting to and absorbing change in symbiotic relationships with human cultivators. These histories can be read into the crop and its concomitant food products. The varietal diversity of cassava is primarily maintained via the social exchange of stem cuttings between kin and friends: upon visiting a neighbouring farm or a nearby community, a farmer may see a folk-variety that they do not currently grow and ask to take a few stem cuttings to plant in their own farm. Social relations are expressed and political alliances are formed in these human-vegetal networks of exchange, and these interpersonal trade histories are often encoded in the names of cultivars. One might think of cassava plants, then, as living prisms of condensed historical meaning.

As I have illustrated, bitter cassava might at one and the same time be thought of as a nourishing food crop, a toxic poison, an exchange valuable, a prism of social relations, and a sentient plant-person. As such, the hyper-diversity that characterises cassava cultivation can only be fully understood in the complex interaction of this gestalt of economic, ecological, aesthetic, social, and cosmological factors. The biocultural significance of this plant cannot be underplayed: one might think of Makushi cosmology as a sort of multi-species house of cards, with bitter cassava constituting the very foundation. As I have proposed in the foregoing, in order to fully grasp the deep and sometimes elusive history of this indigenous Amazonian crop, we must attempt to understand the overarching ethno-theories of life and multi-species relationality which frame its cultivation and use.



Cassava plants | Yupukari, 2012



Sketch of a cassava plant, and its leaf, fruits, and root



A view from the Rewa River | Rewa, 2013

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Lewis Daly has recently completed his doctoral thesis in Anthropology at the University of Oxford, on ecological engagements among the Makushi people of Amazonian Guyana. Lewis conducted 14 months of ethnographic fieldwork in the Rupununi region of Guyana between 2011 and 2013. His research interests include agricultural systems, fermentation technologies, Amerindian perspectivism, and the politics of conservation.

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