

# Organic taste and labour on Indian tea plantations\*

This paper takes a multispecies perspective on taste to explore how organic agriculture affects both nonhuman relations and human labour on Indian tea plantations. Organic tea planters use taste to assess soil conditions and climatic changes and to apply organic practices accordingly. The paper argues that, on the one hand, planters strategically cultivate forms of collaboration between tea plants, fungi, cows and soil microorganisms to enhance the taste of monoculture crops. On the other hand, since these collaborative forms require and reproduce the precarious labour of tea workers and supervisors, their resistance against organic practices also affects tastes. The terroir of organic tea features both the multispecies 'togetherness' on monocultures and the inequalities of plantation labour.

**Key words** taste, plantations, multispecies ethnography, organic agriculture, agricultural labour

## Introduction

Organic agriculture is a growth sector in the Indian tea industry. Organic tea planters assert that because organic practices improve the ecological conditions of tea cultivation, they also create better, more nuanced tastes – 'terroirs' in which healthy soils and even fungi are noticeable. However, integrating organic, taste-enhancing practices into monoculture production often also enhances the precarious situations of tea workers and supervisors. This paper takes a multispecies perspective on taste to explore both ecology and labour on organic tea plantations in India. Through taste, organic tea planters assess how tea plants grow in relation to their surroundings – they register fungi, soil conditions and climatic changes – and this taste knowledge helps them implement organic techniques. I highlight two aspects of this interspecies encounter. On the one hand, organic planters purposefully use their taste impressions to steer biodiverse relationships towards good tastes. In strategically integrating non-standardised, unpredictable tastes into monoculture mass-production, they try to cultivate a flavourful 'togetherness' of different species (Münster 2017) in sites of 'ecological simplification' (Tsing et al. 2019: 186). On the other hand, although taste-inspired tasks are ultimately performed by tea workers and supervisors, they do not benefit from the value they create. To the contrary, the organic practices that ensure good tastes often make their work even harder. Therefore, workers and supervisors often resist carrying out taste-inspired tasks, which in turn affects tastes. Both the workers' resistance to organic practices and the planters' disregard for the supervisors' own taste knowledge sometimes impair the manipulation of the organic tea 'terroirs'.

This paper is based on six months of participant observation conducted in 2016 and 2017. My doctoral fieldwork focuses on three different sites where organic practices are integrated into plantation agriculture – a small plantation in the Dibrugarh district of Assam (65 hectares, 40 employees), a large plantation in the Darjeeling

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region in West Bengal (640 hectares, 400 employees) and a smallholding in the Nilgiri mountains in Tamil Nadu (9 hectares, one employee). Throughout this paper, I introduce people who occupy different positions in the plantation hierarchy and describe how their conflicts with each other influence tea cultivation.<sup>2</sup> Assamese planter Vinod and Darjeeling planter Swaroop belong to the elite class of planters that generally owns Indian tea plantations (Chatterjee 2001). Their management differs from industry standards only in their decision to adopt organic practices, which they took for both environmentalist and financial reasons. Over the past two decades, they gradually changed cultivation routines and eventually obtained organic certifications, which both improved growing conditions and opened new markets. While Vinod and Swaroop decide how tea should be cultivated in the fields and processed in the factories, their employees have to put their instructions into practice, and the planters only inspect (and taste) the results at the end of a working day. I therefore also introduce the worker Deepa and the supervisor Nayan, who work for Swaroop in Darjeeling, and the supervisor Palash and the consultant Ramu, who work for Vinod in Assam. The ensuing ethnography portrays the connections between their professional interactions, the taste of tea and interspecies relations. Varying from these conventional hierarchies of the tea industry, I also introduce the small-scale planter Raju from the Nilgiri mountains, who is himself the only full-time worker on his fields and in his factory. While Deepa, Nayan and Palash often find themselves as mediators between their bosses and the nonhuman participants of tea cultivation, Raju interacts with plants, insects and weather more directly. A comparison of the tastes, tasting techniques and taste-inspired practices in these different sites shows how organic agriculture changes the relationships between tea plants, soils, animals and fungi as well as the negotiations between planters, workers and supervisors. These interactions compose the 'terroir' of organic tea, the 'taste of place' that entangles human and nonhuman worlds. In the following, I first introduce my field and theoretical approach. Then, I draw on ethnography to show how tea planters taste 'with' tea plants, how workers and supervisors cultivate the tastes that planters desire, and their disjointed efforts to adjust good tastes to changing ecological conditions, particularly to changing climates.

## The terroir of organic tea

A multispecies perspective on taste illustrates how organic practices affect both labour and ecology of tea plantations. Organic agriculture is increasingly popular in the Indian tea industry. Since organic tea can be sold at higher prices, it allows companies to stay profitable even though in recent years ever more adverse ecological conditions cause unreliable yields. Organic techniques like mulching and manuring can sometimes even raise yields by improving soil conditions or helping tea plants to adapt to changing weather patterns. These more-than-human factors have not been substantially discussed in the literature on contemporary Indian tea plantations (Münster 2015),<sup>3</sup> which focuses rather on the precarious organisation of labour and resulting

<sup>2</sup> I anonymised the names of research participants.

<sup>3</sup> For a historiographic analysis of the socio-ecological conditions of tea plantations, see Arnab Dey (2015) and Arupjyoti Saikia (2014).

issues of social justice. The ethnographies of Sarah Besky (2013) and Debarati Sen (2017) on Darjeeling and Piya Chatterjee (2001) on the Dooars offer in-depth accounts of how the contemporary industry continues the exploitative labour systems through which British planters established their plantations in the 19th century. Tea workers face precarious conditions of labour and life. Their salaries are below minimum wage – they earn around 150 INR per day on the plantations I visited.<sup>4</sup> The 1951 Plantation Labour Act, based on its preceding colonial template, guarantees social welfare in terms of provisions in housing, food rations and health care, which are deducted from the wages. This regulation leaves much leeway to planters, and provisions usually turn out insufficient. Housed in often derelict huts (called the ‘labour lines’) on the estates that employ them, tea workers remain tormented by bad hygienic conditions, health problems, child labour and drug abuse. Tea workers are both women and men, and on many plantations labour is even predominantly female, but supervisors are almost exclusively male. Supervisors sometimes come from worker families, but in some families all men work as supervisors. Their tasks are more managerial, but they also often join the strenuous physical labour of the workers. Supervisors are paid slightly more and enjoy more privileges, like being allotted better housing and more food rations, but I found that they are generally in similarly precarious situations as the workers.

The introduction of organic agriculture does not improve this situation, as Sarah Besky and Debarati Sen highlight. Sarah Besky (2013) finds that workers see their care for the tea bushes as an exchange for their management’s care for them through provisions, but feel that this arrangement is mostly inadequate. Their perceptions of justice are rarely compatible with the criteria of organic or Fair Trade certification. Debarati Sen adds that although small-scale tea farmers often appreciate forms of ‘sustainable’ production, ‘women plantation workers perceive the new Fair Trade and organic certification policies as an additional layer of management intervention and disciplining of their daily work and social lives’ (2017: 3). My own fieldwork led me to agree that organic agriculture does not bring positive changes to tea workers and supervisors. Organic planters task their workers and supervisors with additional, often difficult, jobs and demand ever higher standards without at the same time adjusting their salaries to the profits thus acquired. Yet despite this regression, organic agriculture also significantly reorganises daily work and nonhuman relations, and it therefore requires more detailed consideration.

In order to emphasise the multispecies relations of organic plantations, I turn towards other recent plantation studies that also apply a multispecies angle. Gathering around the work of Anna Tsing (2012, 2015), these studies describe plantations as a prime example for the commodification of nonhuman life through techno-scientific control and productionist paradigms (Chao 2018; Perfecto et al. 2019). Anna Tsing theorises plantations as cropping systems that introduce ‘cultivation through coercion’ (2012: 148) of both people and plants. In both past and present, plantations are set up through the displacement or even extermination of local people and plants, the preparation of now-empty land and the import of racialised, enslaved labour and cloned cash crops for mass-production (Tsing 2015). Plantations are ‘ecological simplifications’ (Tsing et al. 2019: 186) in which living organisms are disciplined into resources

<sup>4</sup> For comparison: The 2019 minimum wage in Assam was 254.91 INR, but tea workers earned between 137 and 170 INR (Banerji and Willoughby 2019).

by removing them from biodiverse life worlds and reinserting them into economically structured, rigidly managed environments. Sophie Chao finds that Indonesian palm oil plantations practice ‘violent care’ through ‘control, conditioning, and culling’ plants (2018: 422). Indian tea plantations function in a similar way (Besky 2017). Exploited workers cultivate vast monocultures where there used to be biodiverse forests. In order to be productive and predictable, tea workers clone, pluck, trim, spray tea bushes. Thereby, they strictly limit the plants’ interactions with other species and steer all aspects of their growth towards industry requirements.

Organic tea planters partially change these dynamics. By managing monocultures through more biodiverse relationships, they cultivate a productive form of collaboration between species in sites of ‘ecological simplifications’. In India, organic agriculture is often seen as a constructive response to agrarian crises (Thottathil 2014) that positively refashions agrarian identities (Galvin 2014) and helps farmers to adapt new knowledge and forms of social capital (Flachs 2019). Daniel Münster even argues that ‘Zero Budget Natural Farming’ offers smallholders in Kerala a wholly different ‘ontological politics’ of farming: ‘sensing, inhabiting, and dwelling in new ways on the farm and cultivating modes of care that allow for symbiotically relating to soils, plants, insects, animals, and even microbes’ (2018: 751). He finds that natural farmers aim to create a “‘togetherness” of a variety of naturally generous species’ (2017: 32; see also Abrahamsson and Bertoni 2014). On tea plantations, such ‘organic’ ontologies go hand in hand with forms of ‘violent care’. Even though tea workers also actively encourage the biological networks of tea plants, they still pluck, taste, clone, manufacture and sell them according to similar parameters as on non-organic plantations. Other species and even the organisms labelled as ‘pests’ are accepted on organic tea plantations – but only as long as they contribute to the productivity, taste or resilience of tea plants. Tea workers’ and supervisors’ additional care for other species is not rewarded by more money or social recognition. The profits from organic certification stay with the company, and only planters or consultants are publicly appreciated as eco-friendly entrepreneurs. Unlike the smallholders that Shaila Seshia Galvin (2014), Andrew Flachs (2019) and Daniel Münster (2018) portray, tea workers and supervisors often resent their bosses’ attempts to ‘symbiotically’ relate to nonhuman species (2018: 751).

A focus on taste elaborates these uneven human and more-than-human relationships of organic tea production. On the one hand, following how taste-inspired practices enhance the taste of tea leaves exemplifies how organic practices strategically cultivate biodiverse relations within strictly managed monocultures. On the other hand, a closer look at the implementation of taste-inspired practices shows how the non-compliance of workers and supervisors affects cultivation results and thereby also tastes. Since the colonial beginnings of the Indian tea industry, taste is an important aspect for how tea leaves are valued and sold. As taste variations correspond to the unique ecological and climatic contexts of different regions or even individual plantations, they refer to specific ‘terroirs’ of tea. The subtle taste of Darjeeling tea, branded through geographical indication (GI), is often referred to the region’s soil and the elevations up to 1500 metres, where the plants grow more slowly. Assam tea is grown in the Brahmaputra plains, where ample sunlight and heat make it taste strong and astringent. Teas from the Nilgiri mountains normally enjoy two monsoons and taste softer. From a multispecies perspective, ‘terroir’ evokes the entangled relationships between humans and nonhumans that create particular landscapes. The term *terroir* originates in French viticulture (Demossier 2011), but has been applied to other sectors as well,

and during my fieldwork I also frequently encountered it during tea tasting sessions – although tea tasters generally used it to make references to wine taste rather than as an official term for tea taste. In this paper, I use it as an analytical term, taking inspiration from how Heather Paxson (2008) traces the terroir of artisanal cheese from distinctive pastures to bacteria breaking down milk enzymes, and how Erika Szymanski (2018) discusses how the terroir of synthetic yeast creates value beyond the laboratories in which it is produced. I examine how tea planters translate their taste impressions and opinions into practical instructions, and how the workers' and supervisors' interpretations of these influence taste in turn. The 'terroir' of organic teas is created through these diverse and uneven encounters – specific tea plant varieties meet the labour of workers and supervisors, changing climates, the aspirations of planters and the spread of fungi.

Generally, tea tasting follows strategies for the 'ecological simplification' (Tsing et al. 2019: 186) of tea plants, such as cloning, because it further standardises heterogeneous batches of tea leaves. Companies usually employ professional tasters who do not just assess quality but also homogenise taste towards trademark qualities. They follow a complex procedure that was once devised by British merchants and still determines how Indian tea is priced today: not by abstract numbers in auction catalogues, but according to the sensorial judgement of experts. Sarah Besky calls this a 'differential regime of taste' that translates sensations like taste, touch and smell as well as qualities like colour, aroma and texture into valuation prices (2016: 14). This procedure is necessary because even leaves from the same plantation can taste different from one batch to the next, depending on the ever-changing circumstances in which they are grown and harvested. As taste variability thus remains relatively uncontrollable while the leaves are still on the bush, and factory processing cannot entirely eradicate it, techniques for negotiating taste experiences and arriving at agreements about them are vital for the global industry.

Professional tasters are concerned with the nuances of tea taste mostly because they aim to contain them. To the contrary, this paper describes situations in which taste diversity is indulged rather than obliterated. Such multisensory techniques are certainly not limited to organic agriculture, but they strikingly illustrate the dynamics that organic practices initiate. They allow me to trace how planters use taste to both assess and manipulate the situated growth of tea plants, and how workers and supervisors implement these taste-inspired instructions.

## **Tasting with**

In this section, I explore taste as an encounter between planters and plants. Before homogenisation, tastes develop when tea leaves are still attached to the bushes, planted in the soil and touched by weather. At the end of a working day, planters often leave their offices and enter the factory to taste the freshly produced, non-homogenised tea, to know what is happening on the plantation. In doing so, they learn how the vast fields of tea bushes – monotonous dark green surfaces that stretch as far as the eye can see – bring forth a precious variety of tastes.

Swaroop, a Darjeeling planter, told me how he convinced his father to convert their plantation to organic agriculture not through verbal arguments, but through taste. In the 1980s, no tea plantation was organic, and young successor Swaroop's

concern about the ecological viability of the family business was not evident to his father. To convince him, Swaroop instructed the workers to cultivate a remote section on a steep slope with organic compost, and to process the leaves from there separately. After tasting the results, his father was finally convinced that organic tea tastes better – more ‘subtle’ and ‘deep’, as Swaroop explained to me over a cuppa in his office. He also said that previously, uniform application of fertiliser covered up the nuances of taste which emerge from different soils. To the contrary, nourishing the soil with compost enhances these nuances. This way, good taste is not established retroactively through homogenising tea mixtures, but it already grows with the plants. In order to harness this distinctive taste, Swaroop seeks knowledge of the surroundings in which the bushes grow, and wants to learn how to cultivate efficiently in each distinct place.

Like all tea monocultures, Swaroop’s plantation looks homogenous at first glance, but it is composed of separated plantings, each with a small sign that states the *jat* (variety) and clone type of the tea bushes. Clones from the *China jat* (*Camellia sinensis* var. *sinensis*) with their small, dark, mat leaves and sweet, gentle tastes grow next to the larger, brighter, shinier *Assam jat* bushes (*Camellia sinensis* var. *assamica*) with their strong, robust tastes. Pointing out these variations during a walk through the tea fields, supervisor Nayan told me that the company constantly experiments with growing different varieties in different places, where the soil might be rockier or softer, where the sun might hit all day, or only at a certain hour. Workers cover the ground between the bushes with mulch from chopped weeds and prepare cow dung mixtures to nourish microorganisms in the soil. They also sometimes plant nitrogen-fixing ground cover plants between tea bushes or as borders between separate patches. Swaroop frequently assesses the results of these experiments through tasting. If he is pleased with the tastes, this also indicates that the plants are healthy and productive. Swaroop and Nayan suggest that taste emerges in the encounter between tea plant varieties, soils, compost and other plants. Instead of trying to control tastes directly, Swaroop’s management wants to influence these encounters. Organic practices like mulching, composting or companion planting give impulses to the tea plants’ networks and steer them towards good taste results. This strategy turns spontaneous nonhuman interactions that other cultivation approaches often homogenise into tools for monoculture tea production.

Organic togetherness is particularly striking in its relation to ‘pests’, organisms which are conventionally killed because they hinder plant growth. On our strolls through the tea fields, I asked Nayan about some brown-spotted tea leaves. He plucked one and curiously examined it. Then, he said that this is a pest, but that he doesn’t mind it, because it made the tea taste of cardamom. Later, back in Swaroop’s office, I asked the planter what exactly caused this cardamom taste, and he said that it was probably the fungus blister blight (*Exobasidium vexans*). Yet Swaroop was not worried about it either, he did not attribute great losses to it. He said that even though they no longer spray fungicides and insecticides, fungi and insects do not really proliferate more than they did before. Blister blight sometimes affects a part of the plantation, then it disappears again, and shows up in another part. Although it diminishes the crop and weakens the plants, it also creates the subtle taste of cardamom – which Swaroop, too, appreciates. He said that it complements the typical Darjeeling ‘muscatel’ terroir, which is already slightly spicy. He also explained that this taste is specific to organic plantations, and thus distinguishes organic tea from conventional tea. The taste variations which emerge from the tea plants’ ecological interactions are not just informing



new cultivation strategies, they also create marketable distinctions. Whereas most other tea planters try to eradicate the fungi, they can also add value.<sup>5</sup>

In the Nilgiri mountains, I encountered even more specifically situated tastes during a four-hour tasting session which novice planter Raju conducted for me. In the early 2000s, Raju quit his job as a biochemist in Bengaluru and took over his family's nine hectares of tea fields (which had until then been rented out to somebody else) because he had acquired a passion for organic speciality teas. Since he criticises both labour issues and ecological impacts of conventional tea production, he considers himself an outsider to the industry and does not have many contacts with other tea planters, organic or otherwise. Instead, the novice planter sells his tea in small batches over the internet, mostly to 'connoisseurs' from Europe or the USA. As a small-scale grower, all the work on his plantation is conducted by Raju alone, with the occasional help of his family. Extensive tasting sessions, like the one I shared with him, are part of the experimental way in which Raju cultivates his teas. Sometimes, Raju sits together with his brother and sister all night, tasting and talking tea. Both his enthusiasm and outsider position are reflected in his way of tasting: Raju does not use the official industry vocabulary, but refers to his own experiences with the situated growth of specific tea plants. Sitting on his kitchen floor, he explained to me that in his cup of tea, he tastes how his plants grow. He said that in the black loose leaf tea from last winter, he can taste the frost. The 'frosty' tasting bushes grow in a slight ditch that gets colder than its surroundings, and Raju selectively picks and processes snow-covered leaves. The variation in taste that the frost pocket of his fields creates is what Raju calls a 'frosty' taste. He also found that the green monsoon flush he produces from these same bushes tastes 'mossy', like wet soil – the ditch also catches more rain water, and Raju further exaggerates the wetness through mulching. In comparison with other bushes that grow in drier sections, these tea leaves acquire a specific taste that Raju calls 'mossy'.

The sensorial encounters between Swaroop's father and compost, Nayan and blister blight or Raju and the weather carve out aspects of the terroir of tea that I call 'tasting with' nonhumans. Within the strictly managed 'ecological simplifications' of tea plantations, this way of tasting enables intimate encounters between people, tea plants and their nonhuman surroundings. Nayan, Swaroop and Raju relate to their monoculture crops not only as commodities. For them, tasting is an exercise in 'plant sensing'; their 'sensoria get "vegetalized"' (Myers 2015: 42). They gain a sense of pleasure and pride from tasting in this way, but also valuable business information. Improvisational, unscripted impressions complement the precise techniques like cloning or homogenising through which tea plant growth is usually assessed. However, as I show next, 'tasting with' nonhuman species is intimately and often uncomfortably entangled with the labour that makes these experiences possible in the first place.

## Taste labour

In this section, I explore how planters, workers and supervisors translate knowledge gained from tasting into agricultural practice. The above described taste impressions

<sup>5</sup> Blister blight's influence on the terroir of tea might be similar to how noble rot (*Botrytis cinerea*) affects the taste of wine. In particular climatic conditions, this fungus makes grapes taste pleasantly sweet.

inspire planters to devise cultivation and processing techniques – but with the exception of Raju, planters don't perform the cultivation labour themselves. Supervisors carry the responsibility to administrate the planters' taste-inspired techniques, and workers implement them. Navigating the notoriously precarious labour organisation of tea plantations, both supervisors and workers cannot always strategically direct multispecies relations. Overworked and underpaid, they are often negligent in the practical application of their bosses' taste knowledge and sometimes fail to create good tastes.

Small-scale grower Raju shows how taste knowledge 'ideally' fine-tunes cultivation practices. Working by himself or with the help of his elderly parents, he picks and processes small amounts of leaves by hand, which enables him to assess taste quite specifically. He harvests different types of tea leaves from specific small-scale environments – his black tea comes from the robust Assamica bushes on top of a slope that receives the largest amounts of sunlight, and his subtle oolong tea comes from the smaller China jat bushes nestled in the shade of taller varieties. Raju's fields are so small that he can gather taste information about every single section. As I explained above, he applies mulch selectively to enhance or modify soil conditions and microclimates. Raju also produces his own manure to nourish bushes that did not taste as good after the last harvesting round. These mixtures are inspired by biodynamic preparations – Raju consults the instructions of Rudolph Steiner and their contemporary interpretations, like the Biodynamic Association of India, but does not follow either of them very strictly. Rather, he makes up his own mixtures based on the same principles. For instance, the biodynamic preparation 'BD500' is generally produced by fermenting cow dung in a cow horn underground for four months, but Raju modifies the mixture by adding honey from his own bees. He also uses his own astrological calculations for when to apply the manure instead of Steiner's. These adjustments allow him to react to the specific and immediate soil nutrient needs of his tea plants which he determines by tasting.

Other planters want their employees to proceed as precisely as Raju when it comes to the translation of taste knowledge into organic practices – but workers and supervisors don't always follow these instructions. In Darjeeling, Swaroop wants the workers to chop and gather weeds for mulching, to select blight-spotted leaves for particularly refined batches of speciality tea, and to collect cow dung and urine for compost. The latter provides particular potential for conflicts. A couple of years ago, Swaroop proposed to buy dung from his workers if they invested in cows, so that the plantation could be self-sufficient in manure. However, I could not find a single family still keeping cows. Deepa, a worker and wife of supervisor Nayan, explained that shortly after they acquired their cow, the village's water supply broke down. She had to walk down to a stream for half an hour every day for a couple of months to fetch water in canisters. There was no time or energy left for the cow, so the family sold it. Deepa said she wished that the management had repaired the water supply instead of subsidising cows. She also said that she had liked the cows, just like she enjoyed keeping a pig – but she could eat the pig at some point, whereas she could only sell the cow's dung for a small price. Deepa knows that cow dung is important for organic tea cultivation, and she also enjoys and takes pride in the taste of her company's tea – but she was not in a position to provide it. Swaroop speculated that his employees must have become 'too rich to care' for cows – and therefore too rich to cultivate good tastes. He said that the company could produce even better tea if all employees cared more about sustainable practice, which would produce even finer tastes. He found that his employees' sloppiness impeded tea quality. Yet workers and supervisors were overwhelmed by



the responsibility of coordinating the multispecies relationships that create good taste. Nayan found that Swaroop should care more for his workers than for their cows.

Conflict about taste-enhancing activities is also frequent on planter Vinod's plantation in Assam. Vinod wants his employees to prepare a manure mixture called 'kuna-pajala' which consists of plants (hops, ferns and turmeric) and animal carcasses that ferment in cow urine and dung. Workers and supervisors cook and stir these ingredients in steel barrels and bury them underground to ferment. Then they strain the mixture and spray it onto the soil. Vinod explained that this rather unappetising concoction creates good tasting tea by improving plant health: it provides nutrients to microorganisms in the soil, which plants then absorb through their roots. On tea plantations, soil microorganisms often deplete through 'conventional' fertilisers and pesticides (Bishnu et al. 2008, Senapati et al. 2002). By regenerating these organisms, Vinod and Raju join the 'probiotic environmentalities', which Jamie Lorimer (2017) describes as a recent 'turn' in the management of human and environmental health. The method also diversifies the plantation's nonhuman population: apart from cows and microorganisms, tea workers also cultivate hops, ferns, and turmeric alongside tea monocultures. Through kunapajala, interspecies togetherness becomes a cultivation strategy for monocultures. Yet the workers whose job it is to orchestrate this 'living soil' (Puig de la Bellacasa 2015: 12) do not always appreciate it. Supervisor Palash finds kunapajala repulsive. He said that many of the workers share this repulsion, but that he is the only one who speaks up against it openly. What is more, preparing and spraying kunapajala is an extra task which puts a strain on the understaffed and overworked workers and supervisors. It involves gathering expeditions, cow care, pungent smells and longer work hours. Therefore, although Vinod wants the workers to spray kunapajala every day, Palash said that they almost never do it. Their working days are so busy and strenuous that kunapajala seems like an unreasonable chore. Vinod does not know that his employees often skip the organic practices that he considers vital. Since he also owns several other businesses, he rarely visits his plantation and relies on phone calls and WhatsApp messages for information about his tea plants. Palash told me that he only sends Vinod information that he finds important, and spraying kunapajala is not a priority for him. Drinking tea in Vinod's office, he told me that he is mostly satisfied with the quality of his tea, but like Swaroop, he also remarked that the quality could be even better if his employees were more engaged in organic agriculture. Like probably all Assamese planters, he was particularly worried about the increasingly hot summers that lowered both productivity and quality of his crop, which therefore required additional care and attention. He emphasised the importance of proper organic practice by telling me that once a large amount of his tea even had to be sold cheaply to a wholesaler because it did not taste good enough for specialty tea.

Organic tea cultivation creates conflicting relations between taste and labour. It is the workers' and supervisors' task to choreograph the interactions of soils, plants, animals and microbes that create the tastes that the planters desire – but unlike their bosses, Deepa, Nayan and Palash do not have the time, energy or motivation to indulge in the 'ontological politics' (Münster 2018: 751) of organic agriculture. Engaging with 'plant sensing' (Myers 2015) seems unfeasible on below-minimum wage salaries. Both Swaroop and Vinod lamented that their employees' lack of diligence jeopardised the taste of their tea. Planters cannot make the workers and supervisors implement organic techniques as precisely and directly as small-scale grower Raju, especially not under the precarious work conditions that they are dealing with. I now show how these

conflicting relations of taste and labour sometimes complicate the adjustment of taste-making techniques to changing ecological circumstances.

## Tasting change

This section explores how planters use taste to adjust to changing climates. Taste knowledge informs planters about the current state of their crop and updates the actions they take to influence phytochemistry. Yet since they ignore the supervisors' and workers' opinions, their ability to react to changes is missing their close-up perspectives. Even though workers and supervisors also often taste their tea and express their opinions on it, their tasting experiences have almost no chance at all to influence tea cultivation. They ultimately perform cultivation labour according to their superiors' tastes. The changes which tea growers can implement on their plantations through taste are biased as they do not include the full spectrum of taste experiences.

A number of press articles announced that 'Indian tea tastes different due to climate change' (Hussain 2010). To illustrate this, they quote taste statements: 'Sudipta Nayan Goswami, an Assam-based planter, said subtle changes had already been observed: "The flavour has changed from what it was before. The creamy and strong flavour is no more"' (Borah 2010: np). "Malty, hard," says Parag Hatibaruah, a professional tea-taster. "But not as strong, brisk and creamy as it was once," he adds, shaking his head dismissively' (Das 2013). Biologists confirm correlations between tea tastes and climate change (Ahmed 2014; Ahmed and Stepp 2016).<sup>6</sup> Taste makes changing climates tangible for tea growers, who are used to reading their plantation through their tongues. For organic tea growers, changing tastes and changing climates are processes that run parallel to organic transition, and sometimes complement it. The Darjeeling region experienced extreme weather changes in recent decades. Swaroop searched for ways of retaining the taste which he had worked hard to unleash through organic methods. Finding that mulch alone would not suffice to keep the soil from eroding during ever more frequent dry periods, he instructs his workers to plant trees around the tea fields. Swaroop explained that tree roots penetrated into the subsoil and stabilised it by keeping it moist. Tea bushes benefit from improved soil conditions, additional shade, and the birds living in the woods that eat insects. Tree planting does not primarily aim to improve tea taste, but mainly helps to prevent landslides, to which the Darjeeling region is prone, and facilitates irrigation. These factors all eventually feed back into taste quality, and ensure it in the long term. Again, here, tasting prompts tea planters to mobilise the complex interrelationships of tea plants and their nonhuman surrounding. The taste impairments from climate change are balanced through the strategic cultivation of biodiverse relationships.

However, conflicts within the plantations' hierarchies mean that the necessary adjustments to changing climates are not always successfully implemented. In Assam,

<sup>6</sup> There is a substantial number of studies on climate change effects on tea. Most of them focus on yields (for instance Duncan et al. 2016; Patra et al. 2013), but Selena Ahmed (2014) and John Richard Stepp (Ahmed and Stepp 2016) convincingly argue that yields alone are not decisive in tea cultivation. They argue that changing climates can jeopardise the taste of tea, but Daniel Bolton (2018) finds that the taste of Darjeeling tea actually becomes favourably complex in recent changing climates, even though yields decline and insects like the tea bug proliferate increasingly.

the extreme heat of recent decades slows down photosynthesis, and supervisor Palash noticed that tea tastes deteriorated as a result of this. Seeking techniques to ensure good tastes in increasingly unfavourable climates, he found out that attentive processing could counteract the heat, if performed correctly. Nobody ever asks for Palash's opinion on taste; his job is just to oversee production, but he tastes anyway. He always brings a small kettle and an hourglass to the factory, to taste the freshly produced tea whenever there is time for it. This way, he revises the conventional timings for steaming, fermentation, drying, etc. Such adjustments can be seen as Palash's own, unofficial strategy to adapt his practice to the changing tastes that result from changing climates. However, his initiative is not appreciated by the consultant Ramu, whom planter Vinod hires to optimise production processes, and who visits the plantation infrequently. When Ramu is present in the factory, he insists on keeping the timings which Vinod instructed – although, as I mentioned above, Vinod rarely inspects his plants first hand. Palash finds that he knows tea processing better than Vinod and Ramu, and laments that they disregard his skills. However, he proceeds according to his own devising whenever he is alone with the workers. Palash entrusted me with the numbers that produced good tea according to him. He instructs the workers to steam the leaves for two and a half minutes, whereas Ramu instructs three and a half. Palash likes 45 minutes of rolling, Ramu 24. And the list goes on. Palash also said that as he works more closely with the workers, he trusts their skill to steam and roast the tea for just the right time, because they closely observe the leaf texture. With his focus on adjusting factory processing, Palash's take on organic tastes differs from the 'ontological politics' (Münster 2018: 751) of relating to other species. Palash wants to keep track of shifting climatic conditions through experimenting with timings and textures, which he also assesses through taste. However, although his approach might be useful to complement the planters' organic techniques, Palash's tasting does not count as much; his position as a supervisor is second to last in the hierarchy.

In the tea fields and factories, supervisors and workers see, touch and sometimes taste tea leaves every day, but planters and consultants don't take their knowledge into account. It is therefore not the workers' and supervisors' lack of care that prevents the continuous adaptation of cultivation and processing techniques to changing climates, but, to the contrary, the planters' disregard for it. Planters 'taste with' plants, fungi and the weather, but since they exclude their employees from this togetherness, they also limit possible taste expressions.

## Conclusion

An examination of taste shows how organic practices partially remake the 'coercive' more-than-human relationships of plantations. This adds new layers to the labour conflicts that Sarah Besky, Debarati Sen and Piya Chatterjee document. Tasting connects 'violent care' and organic care, monoculture and biodiversity, precarious labour and more-than-human 'togetherness'. The planters I introduced envision organic practices as a form of care for nonhumans that simultaneously enhances the taste of tea leaves and creates a more positive relationship between humans and non-humans, even a close connection. This 'togetherness' is expressed in the planters' delightful sensory experiences of 'tasting with' tea plants and other nonhumans. These experiences are part of the 'ontological politics' (Münster 2018: 751) that recent multispecies

research discusses in regards to ‘regenerative ways of farming’, which may even ‘have the potential to affectively and economically transform precarious lifeworlds into self-sufficient, autonomous and abundant worlds of life’ (2018: 751, 752). On tea plantations, however, such ontologically transformative practices regenerate monoculture mass production rather than create more biodiverse surroundings. Organic tea leaves may provide the taste of enlivened ecological contexts, where tea plants are intimately connected to fungi and the weather, but they also still grow in uniform, almost sterile lines of cloned specimens. Since tasting not only references the ‘ontological politics’ of planters but also the labour of workers and supervisors, it juxtaposes the planters’ versions of ‘plant-sensing’ (Myers 2015: 42) or ‘symbiotically relating’ (Münster 2018: 751) to ‘living soils’ (Puig de la Bellacasa 2015: 12) with their apparent lack of care for their employees. The latter enable planters to experience a connection to tea plants through taste, yet they are neither included in the ‘togetherness’ of humans and nonhumans nor benefitting from it (e.g. through a share in the additional profits that come with organic certification). The paper highlights worker and supervisor resistance to organic practices and, with the example of Palash, it notices some of their own strategies to improve taste. Resistance also comes from the nonhuman environment itself, as exemplified by the impact of changing climates that makes tea plants grow and taste differently. Based on these observations, the terroir of organic tea speaks of partially biodiversified monocultures and ongoing labour conflicts. Idiosyncratic ‘frosty’, ‘mossy’ or ‘cardamomy’ tastes are an achievement of more-than-human collaboration, and ‘not good enough’ tastes are a result of human inequalities. Terroir does not just spell out human–nonhuman interactions (Paxson 2008; Szymanski 2018) but also their effects on labour.

These uneven relationships around tea tasting open up further layers of ‘complexity and complicity’ (Shotwell 2016: 1) in the multispecies study of agrarian alternatives. They further highlight the potential conflicts of ‘friendly farming’ (Tsai 2019), interspecies ‘intimacies’ (Govindrajan 2018) and ‘companionship’ (Haraway 2003) that the field is concerned with. This contributes to the ambition to understand concerns of labour alongside agro-ecology and, more generally, to better understand conflicting relations of environmental care.

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Desirée Kumpf   
Institute of Anthropology  
University of Leipzig  
Institutsgebäude  
Schillerstraße 6  
Leipzig 04109  
Germany  
dekum@posteo.de

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## Goût biologique et labour dans les plantations de thé indiennes

Cet article adopte une perspective multi-espèces sur le goût pour explorer comment l'agriculture biologique affecte à la fois les relations non humaines et le travail humain dans les plantations de thé indiennes. Les planteurs de thé biologique utilisent le goût pour évaluer les conditions du sol et les changements climatiques et pour appliquer des pratiques biologiques en conséquence. L'article soutient que, d'une part, les planteurs cultivent stratégiquement des formes de collaboration entre les théiers, les champignons, les vaches et les micro-organismes du sol pour améliorer le goût des cultures en monoculture. D'autre part, puisque ces formes de collaboration requièrent et reproduisent le travail précaire des travailleurs et des superviseurs du thé, leur résistance aux pratiques biologiques affecte également les goûts. Le terroir du thé biologique se caractérise à la fois par l'unité des espèces dans les monocultures et par les inégalités du travail dans les plantations.

**Mots clés** goût, plantations, ethnographie multi-espèces, agriculture biologique, travail agricole