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IN SEARCH OF THE NATIVE: A POSTHUMANIST APPROACH TO COMMUNITY PRACTICE

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Abstract: This paper is a narrative outcome of our fieldwork experiences with two Adivasi communities (Scheduled Tribes) on the outskirts of Mumbai City in India. Diverse, complex problems like urbanisation, capitalism, and climate change impact the livelihoods of these communities. The wicked nature of these problems perpetuates their social vulnerabilities, agro-biodiversity losses, and livelihood insecurities as they are constantly alienated, dispossessed, and displaced from their local environment and everyday forms of being. Given these circumstances, more than traditional community development approaches may be required locally. Engaging with these communities also implies that we engage with ecologies of knowing-in-being and repair, which, from a posthumanist perspective, guides us to the situated understanding of nature-culture entanglements, their relationalities, and the multiplicities of human-nonhuman associations.

Keywords: posthumanism, livelihoods, community practice, social work, action research.

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INTRODUCTION

Indigenous communities in the periurban regions of big cities face diverse, complex problems in everyday life. The wicked nature of these problems perpetuates their social vulnerabilities, agro-biodiversity losses, and livelihood insecurities as they are constantly alienated, dispossessed, and displaced from their local environment and everyday forms of being. Such developments do not occur in a vacuum but in the context of advanced capitalism's political economy of knowledge production (Braidotti 2018). Escobar (2016: 15) explains such conjunctures where the world is "facing modern problems for which there are no longer modern solutions". Given these circumstances, more than traditional community development approaches may be required to work with local communities toward co-designing livelihood adaptations and social innovations.

In this paper, we, a team of social work faculty and students specialising in livelihood promotion and community practice, share our experiences in engaging with two Adivasi communities (Scheduled Tribes) on the outskirts of Mumbai, India. Through community-based action research, we engaged with the Adivasi farmers to restore agrarian ecologies in their surroundings. Guided by a posthumanist perspective, this paper aims to demonstrate the entangled nature of our being and becoming in a more-than-human world. For the same, we diffract through diverse knowledge-practice contexts, their relationalities, and multiplicities of human-nonhuman entanglements. Our objective is to unearth the agencies of specific categories of humans (who are cheapened and rendered invisible through dominating knowledge systems and practices), nonhumans (whose existence is often objectified or pushed to the margins with the purpose of commodification and profit maximisation), and the entangled intra-actions of these beings. Further, this paper attempts to demonstrate the potential of posthumanist approaches in innovating practices of knowing, sensing, and caring for other-than-human nature.

The structure of the paper is as follows. To begin with, the contexts and objectives of our action research are discussed in the next section. This is followed by a discussion of

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posthumanism as a theoretical framework to guide community practice. Further, we discuss how we innovated our methodologies of field engagement, reading through the lens of posthuman practice. Here, we detail how we commenced our fieldwork by following "native seeds" (and not humans, which traditional social workers and community practitioners would generally adhere to). Our situated experiences and learning concerning our engagement with the two Adivasi communities are discussed in detail in this section. Following this, we diffractively analyse the situatedness of knowledge-practice contexts and their entanglements in a more-than-human world. We discuss the theoretical and methodological insights gained from this fieldwork at the end of this paper.

THE CONTEXTS OF OUR PRACTICE

Engaging with the ethico-onto-epistemologies of community practice has always been a critical concern for our faculty and students at the Centre for Livelihoods and Social Innovation (CLSI), Tata Institute of Social Sciences (TISS) in Mumbai, India. Drawing inspirations from Barad (2007) and Bozalek (2021), our approach to community practice recognises that knowing does not come from reflecting and representing objectively from a distance but from a direct material engagement with the world. The CLSI anchors a postgraduate programme in social work focusing on practices and processes that value the entangled relationships in a more-than-human world. This is guided by a pedagogical perspective that would stimulate and nurture the qualities of attentiveness, responsiveness, and responsibility of all involved participants. A critical component of our social work education is the concurrent fieldwork that enables students to work with marginalised communities in their habitus, diffracting across diverse ways of knowing and engaging in collective knowledge production.

Our fieldwork curriculum facilitates the diffraction of theory through practice and from one practice context to another by placing students in specific community or institutional settings. Students consecutively visit the specific setting assigned

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to them every Monday and Tuesday for 22 weeks. On other days of the week, students would engage in the situational analysis of their practice context as part of their classroom discussions and outside. Simultaneously, along with their faculty supervisors, they share, reflect, brainstorm, and co-design appropriate social innovations to address the complexities of the practice situation. The university-community relationships that emerge in such a practice context would be porous, subject to tidal rhythms and, like a wave, dynamic and unstable (Quinn 2016). Hence, the pedagogy and curricula framed around the learner cannot also be fixed and rigid, whose subjectivity will be in a continuous state of flux (Quinn 2016). Our fieldwork curriculum is designed with such an understanding of situated knowing and doing, where the faculty, students, and other participant actors, based on each situation of practice, choose different methodologies to understand, analyse, and change it. Such a curricular space for iterative engagement allows students to apply their creativity and immerse themselves in experiential learning.

In 2022, the CLSI faculty were involved in an action research project to promote climate resilience through natural farming in India. We began to explore working with indigenous farming communities in the periurban regions of Mumbai city. Subsequently, two social work students with an educational background in agriculture were placed in the action research project as part of the concurrent fieldwork. Within a short period, they decided to work with two Adivasi communities, namely Katkari and Thakar, located approximately 40-45 kilometres away, on the fringes of Mumbai city. This paper is a narrative outcome of our fieldwork experiences with these two Adivasi communities.

We adhere to the term "Adivasi" in this paper instead of a tribe, as it reasserts these communities' standpoint that they are the original inhabitants of their region, the rightful custodians of nature in which their everyday lives are entangled. These communities are being displaced and dispossessed everyday through a multitude of development projects, and therefore, asserting the Adivasi identity is a conscious act of resistance against such dispossession. Rainfed agriculture and gathering food from forests have been critical livelihood sources for these

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communities. Colonial and historical contexts of exclusion and oppression, deforestation, climate variability, water scarcity, uneven rainfall events, peri-urbanisation, land acquisition and displacement, bonded labour, and outmigration shape the everyday livelihood practices of diverse Adivasi communities in and around Mumbai. Loss of agro-biodiversity and indigenous knowledge systems has been rampant among these communities. In contemporary times, these indigenous communities are pushed from the margins to the crossroads, alienated and dispossessed from their forests, land, and the rest of nature. They are often forced to move away from their social contract with nature.

The villages of these communities are also sites of disturbance. Tsing (2015) explains disturbance as a change in environmental conditions that causes pronounced ecosystem changes. In each disturbed patch, there is a dynamic convergence of unprecedented technological intervention, speedy transformation, and persistent inequalities impacting the everyday lives and eco-social worlds of humans and non-humans (Braidotti 2019). Further, human-disturbed landscapes are ideal for humanist and naturalist noticing (Tsing 2015: 159). It reveals the heterogeneities and patches shaped by diverse conjectures, humans' histories in these places, and the histories of non-human participants. However, Tsing adds that these disturbances open up the terrain for transformative encounters, making new landscape assemblages possible. To understand disturbance, we need to notice (Tsing 2015).

Engaging with these communities also implies that we engage with "ecologies of repair", which, from a posthumanist perspective, guides us to the situated understanding of nature-culture entanglements, their relationalities, and the multiplicities of human-nonhuman associations in capitalist ruins (Blanco-wells 2021; Tsing 2015). Such an approach to practice would recognise the agency of people, plants, animals, objects, and other materials in rebuilding damaged ecosystems and weakened social ties (Blanco-wells 2021). The basic unit of practice is socio-geo-ecological formations, where adaptation and reparation practices involve open-ended actions shaped by values of justice, care, and solidarity (Blanco-wells 2021; Santha 2020). The reparation of social and environmental crises also acts as ontological openings,

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focusing our attention on the complex realities unfolding from the crisis and innovating practices of knowing, sensing, and caring for other-than-human nature (Blanco-wells 2021). The practices of reparation and restoration are also practices of becoming.

Native seeds and plants are crucial for ecosystem restoration, biodiversity conservation, genetic diversity, and stable livelihoods (Tischew et al. 2011). Commercial seed mixtures of non-native species and genetically uniform varieties threaten local diversity (Tischew et al. 2011). Indigenous communities such as the Adivasis are critical in preserving native varieties and landraces. However, their agency in reparation, restoration, and conservation work must be more robust (Singh et al. 2013). The contexts mentioned above shaped our fieldwork goals. We set out into the diverse socio-geo-ecological spaces, exploring how communities involved in vegetable farming adapt to ecological crisis and their practices of reparation through the conservation and restoration of native seed varieties.

The fieldwork team comprised a social work educator and two postgraduate social work students with a background in agricultural science. Our interactions with the people in the community were in Marathi. Over one year of concurrent fieldwork, our learning-cum-action goals evolved to locate the growers and sellers of native vegetables, their livelihood practices, and patchy epistemologies; understand the entangled nature of their livelihood practices; identify seed-related needs of farmers and explore collaborative ways to address them; and co-diffract on the practices of reparation and restoration from the worldviews of Adivasi men, women, and seeds.

POSTHUMANISM AND COMMUNITY PRACTICE

Though we (humans and nonhumans) are all entangled within the pluriverse (Escobar 2015), conventional paradigms of community practice have been unable to theorise these ontological relationalities adequately (Bell 2013). Instead, the practice is shaped by dominant forms of Euro-western social work, rooted in Cartesian duality and modernism, emphasising humanism and anthropocentrism (Webb 2021; van Heerden

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2018). Social work practice, in general is constrained by dualisms such as nature/culture, material/discursive, subject/object, human/animal, man/woman, and North/South – that are hierarchical and legitimise all forms of oppression and human matters of nature (Bozalek, Pease 2021). The transformative agenda rooted in such dualisms is a significant paradox and challenge for social work education (Boetto 2017; Bell 2021). Taylor (2018: 84) observes that human-centred pedagogies have led us to an ethical cul-de-sac, which fundamentally functions through othering practices.

In traditional community practice, reflexivity is understood to evolve and progress from responsiveness to an emotionally aware critique of the structures and processes that shape knowledge production (D'Cruz et al. 2007). However, reflection and reflexivity signify repetition and sameness (Haraway 1992; Bozalek, Zembylas 2018), resulting in practices rooted in dualistic thinking (without investigating how these binaries are produced through the methodology itself) (Haraway 1992; Bozalek, Zembylas 2018). Instead, diffraction as a relational ontology of both "being" and "becoming" could provide more space to accommodate differences and heterogeneity (Barad 2014). In a diffractive methodology, the entangled nature of matter and meaning are explored attentively and with care, where we learn to take responsibility and see ourselves as part of the world (Barad 2014). Rather than engaging with binaries like subjects/objects or teachers/students/communities, we consider our fieldwork a relational phenomenon. Our fieldwork was constituted through interactions and intra-actions leading to a becoming-with, where each participant (humans and nonhumans) rendered each other capable (Bozalek et al. 2018: 107).

Contemporary worldviews perpetuating globalisation and the widening of commodity frontiers ignore that seeds, plants, vegetables, and trees are historical actors with stories about cross-species entanglements and their overlapping world-making trajectories (Tsing 2015: 168). These onto-epistemological approaches result in the commodification of nature, cheapening of some humans and nonhumans, and inflicting violence on them (Moore 2016; Taylor 2018). They ignore the world-making projects of nonhumans in a more-than-human world, where

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humans become only one of many participants in making liveability (Tsing 2015). Carstens (2018) affirms that not recognising the anthropocentric conceit is to resign ourselves to unsustainable futures. In contrast, we need to step out of existing institutional and epistemic boundaries if we genuinely want to bring just transformations (Escobar 2015). In this context, posthumanism questions the primacy of human subjectivity and recognises agency in ways not solely tied to human action (Fox, Alldred 2015). Instead, the practice focus must engage with a relational network of assemblages (Fox, Alldred 2015). Thus, a posthumanist approach would engage with entangled relationships that fundamentally involve networks of human and nonhuman phenomena (Webb 2021).

A central premise of posthumanism is entangled living (Bignall, Braidotti 2019). Braidotti (2013) explains posthumanism as a theory and practice existing on the entangled existence of humans with nonhumans, microbial actors, and socioeconomic forces. A pedagogical focus on phenomena and entanglements would indeed explore the networks of dependencies that constrain and drive the human condition (Hodder 2016: 9). Barad (2007:52) explains:

> to be entangled is not simply to be intertwined with another, as in the joining of separate entities, but to lack an independent, self-contained existence. Existence is not an individual affair. Individuals do not pre-exist their interactions; rather, individuals emerge through and as part of their entangled intra-relating.

Accordingly, the posthuman subject "becomes the world in all its open-ended, inter-relational, transnational, multi-sited, and trans-species flow of becoming: a binding vital force" (Braidotti 2018: xvii). Therefore, it becomes impossible to separate epistemology (theories of knowing) from ontology (being and becoming) and ethics (Bozalek, Pease 2021; Alaimo 2012), gradually erasing the corporeal boundaries separating the human from the nonhuman, the human from the environment, the human from less privileged categories of the human paving the way for transversal subjectivities (Braidotti 2019).

Bozalek et al. (2018) ask how social justice from a posthuman perspective may be put to work in higher education

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institutions and pedagogies. They suggest that such an approach could focus on relational ontologies, critique of dualisms, and engagements with matter and the nonhuman or more-than-human worlds. However, a posthuman pedagogy of the oppressed needs to foreground the missing people:

> the missing to begin with would look at indigenous knowledge systems, at feminists, queers, otherwise enabled, nonhumans or technologically mediated existences, these are real-life subjects whose knowledge never made it into any of the official cartographies (Braidotti 2018: xx).

Such an exploration will concern our increasing separation from nature, habitat fragmentation, and the vexed histories of discrimination and disempowerment (Blanco-wells 2021). Activating posthuman relational ethics can shape more expansive community practices, which may produce new modes of responsibility, accountability, and commitment (Taylor 2018). We can effectuate socially just pedagogies by challenging existing ways of knowing, sensing, and feeling them through different contexts of doing and becoming by collectively sharing our personal stories and lived experiences (van Heerden 2018).

While posthumanism has extensively dealt with human-nonhuman relationships regarding people and animals, the plant world has yet to be attended to much (Fleming 2017). There is a need for vegetal politics that could recognise the working of plants, most of which operate slowly and subtly, if not invisibly (Fleming 2017). Head et al. (2012, 2014a, 2014b) have mooted the idea of vegetal politics to integrate human-plant relations into the multispecies relational ontology. Combining insights from botany and horticulture with geographic material, vegetal politics recasts plants as actors with their agency (*plantiness*), shaping landscapes and transforming identities (Head et al. 2012). The changes plants undergo and their different forms during their lifecycles are material performances owing to their *plantiness* (Doody et al. 2014). By being attentive to modes of human-plant cohabitation performed within practices, we can recognise and perceive the agencies of plants and relationships characterised by affirmation, cooperation, and struggle (Doody et al. 2014). However, scholars of

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vegetal politics have selected quiet settings where power relations are muted, such as private gardens (Fleming 2017). Fewer studies examine resource production, economic development, and environmental conservation, where plants contend with more substantial power flows (Fleming 2017). In the contexts mentioned above, we began exploring seed-human entanglements among Adivasi communities on the outskirts of Mumbai city. The following paragraphs are a brief narrative of our entanglements and becoming.

FOLLOWING SEEDS

We commenced our fieldwork by "following native seeds" with the hope that we would be able to discover multi-species entanglements in the fringes of a capitalist city. To begin with, we navigated through the market spaces in and around Navi Mumbai, which constituted diverse ecosocial worlds where different social groups had their everyday encounters with both humans (vendors, commission agents, and buyers) and nonhumans (seeds, vegetables, fruits, fish, and other animals). In a Deleuzian sense, the market is a social space characterised by heterogeneity and multiplicity of capitalist networks consisting of humans and nonhuman entities (Deleuze, Guattari 1987). Therefore, finding the "native" in a city space was difficult.

At first, we could not locate any vegetables that were native and non-hybrid varieties – people and shops selling hybrid seeds and vegetables[1]. After a few days of exploration, we found women vendors selling native vegetables on the pavements beside the primary market. They were selling locally produced, native varieties of vegetables[2]. Each market was a dynamic patch on its own. On every market visit, we spotted women vendors sitting in different locations in and around the market. We never happened to meet the same woman again in the exact location. They seemed to us like "nomadic bodies", always in movement. Unlike the men's retailers and wholesalers inside the market, they had no fixed seating arrangements. Also, we did not see any man selling native vegetables. Moreover, we did not see these women on many visits, as if they represented the

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"missing people". Furthermore, their places were occupied by men selling expensive exotic fruits and hybrid vegetables.

Our first encounter was with a woman selling locally produced papaya, ridge gourd, and tamarind. In the following weeks, we encountered women from Katkari and Thakar communities selling vegetables such as red amaranth leaves, green fenugreek, spinach, and lotus flowers. We also encountered a few Katkari women selling spine gourd and ivy gourd procured from the forests and wastelands near their village. We took care not to interrupt their regular business hours. Often, we waited for them to become free from their work to continue the conversations.

Gradually, as we built rapport with these Adivasi women, we also learned about the diverse sources from which they procured their vegetables. It was a multiplicity of livelihood practices. The Katkari women were selling vegetables cultivated in small patches of wasteland. Some women bought the vegetables from the neighbourhood farms, and many they picked or plucked from the forests. However, for these women, selling vegetables either cultivated in the wastelands or picked up from forests during the monsoons was a strategy of livelihood diversification, and post-monsoon, they had to rely on other livelihood activities, such as working in the brick kilns. Women from the Thakar community usually brought vegetables from their farms or procured them from the neighbourhoods. Compared to the Katkari, men in the Thakar communities owned cultivable land. Nevertheless, it was the women who sold the vegetables in the market.

As these women became familiar with us due to our regular visits and interactions, they invited us to their village to meet people involved in farming native vegetables. These women also invited us to join their local festivals in the village. We visited the two communities at the peak of the monsoon season (August 2022). Farther from each other, both villages were surrounded by hills. There were no accessible roads. Further, the pathways that led to the villages were cut off due to heavy rains. Our fieldwork progressed amidst the heavy rains and the mild winter (December 2022) that followed. By the peak of extreme summer heat in the next year (May 2023), we had built an

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excellent rapport and trust with both communities. We were learning to notice, be attentive, and be responsible. Our fieldwork made us aware of "what we are ceasing to be and what we are in the process of becoming" (Braidotti 2019: 64). Our knowing, doing, and becoming amidst the newer forms of entanglements are briefed below.

LIVELIHOOD PRACTICES OF THE THAKAR COMMUNITY

The Thakar community stayed in a village at the foot of a hill. They had access to cultivable farmlands, apart from the wastelands and forests. The village had around 190 households, of which 40 families were involved in farming practices. They undertook paddy farming during the monsoons and practised vegetable cultivation for the rest of the year. We learned from our initial interaction with them that they prefer cultivating hybrid varieties of vegetables such as brinjal. Our preliminary understanding that emerged was that these farmers rely on hybrid seeds and further stock a portion of their last yield for their next sowing season. When the seeds' vitality decreases, they purchase the next round of seeds from the market. According to them, the seed prices at the market are low during the lean agriculture season and expensive during the active agriculture season. Often, the seeds are unaffordable during the peak sowing season. Nevertheless, they purchase seeds from the Krishi Kendra or the retail seed shops in Panvel during times of need. A woman farmer said, "the seeds of the hybrid crops get spoilt easily. Therefore, though expensive, I generally buy them from the shops before the sowing season".

These farmers had the practice of applying either chemical fertilisers or bio-fertilisers depending on the cropping pattern. While some crops required the compulsory application of chemical fertilisers, they avoided using them for many other crops. Few farmers said they would refrain from applying chemicals, as they also consume these vegetables and know how toxic they can be. Others said these chemicals also make the soil toxic and remove its natural agility. They also shared that their ancestors had excellent practices for storing and reusing seeds.

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They also used to share seeds with other needy farmers. However, most of them today depend on the market for seeds, and their decision to go for a particular crop depends on the market demand. One woman from the community commented, "these days, there is no need to restore seeds from the previous crop. Why bother about that when it is easily available in the markets!".

However, our search for native crops was not futile. As we moved uphill, amidst our conversations and people's storytelling, we discovered this community has a rich tradition of cultivating one heirloom crop for the last hundred years. It was the native variety of ridge gourd grown in the hills. Farmers shared,

> The practice of cultivating this ridge gourd is more than 96 years old. We have been storing these seeds from one generation to another. Moreover, whenever some families did not have enough seeds, we shared the seed from our stocks.

For this community, the ridge gourd is still a symbol of resistance to the forces of capitalism and conserving their socio-geo-ecological heritage. One day, when we arrived at a farmer's house, we saw that a big basket of ridge gourd was harvested and kept in front of their house. Upon our inquiry, he retold the story that these ridge gourds are collected from the hills and grown from the seeds stocked since ancestral times. Only a few people from his village have these seeds these days, and they described how they grow on limited resources. The farmer said, "the ridge gourd just needs air and nothing else". He also said these are much tastier than the hybrid varieties of ridge gourd. Further, there were regular customers for this specific variety of ridge gourd. Later, we also encountered farmers cultivating other vegetables here and there in patches. One farmer took us to his farm and was eager to show us his red amaranth plant, which was smaller in size, and the leaves had a deep red colour. At the same time, he was disappointed with the growth of his bitter gourd plants, which were infected yellow and dry due to some pest. He lamented that the production was also significantly less, though the hybrid seeds he bought from the market were costly.

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There seem to be some manufacturing defects with the seeds…I should have chosen them wisely. When I reverted to the seed sellers, they suggested some measures to address the pest. However, it was time-consuming and was more of a headache for me. So, I decided to abandon the crop as it is.

As our fieldwork evolved across the monsoon season, we also encountered some farmers cultivating green radishes. They sow the seeds of this crop at the end of the monsoon, as it requires less water. However, even this crop was devastated that particular year (2022) due to the unprecedented heavy rains. Our community mobilising strategy was preceded by household visits and regular interactions with farmers on what crops they grow and to what extent they are interested in cultivating native varieties of vegetables. Our lines of inquiry explored the political economy of hybrid seeds, people's daily livelihood struggles, and their readiness to restore natural farming practices using native seeds. After four to five weeks of shared conversations, we mobilised a few farming households interested in restoring the practice of farming using native seeds, at least in patches and on a tiny scale. They gave us the list of crops they wanted to try. Accordingly, we procured the native seeds from two seed keepers. However, when we commenced the distribution of seeds, we could witness the emergence of unshared apprehensions among some farmers to try out these seeds. Previously, these farmers have had bitter experiences with similar experiments that have gone bad. A farmer shared his experience:

The government department had asked us to grow a new variety of paddy called "Gajini". However, the yield was half of the standard yield that we used to have previously from the "Suvarna" or "Ratna" variety of paddy. Moreover, for us, rice was meant for self-consumption.

An elderly farmer and his family were unsure whether the seeds that we provided would grow in their terrain. Therefore, they required seeds in small quantities to try out first. Some farmers told us, "We can use the seeds to understand if they grow on our land, but only in small quantities and less space. Otherwise, we will face much loss if the seeds fail to grow. If it

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grows well, it can be taken for the next year". A farmer said he would plant two or three seeds from each packet, like a sample, before trying it out with the whole pack of seeds. This is to ensure the viability of the seeds. Some other farmers enquired whether they had to pay for the seeds. We told them that we were procuring seeds from two seed keepers who believe in the free propagation and sharing of heirloom seeds, and we do not have to pay them. We told the farmers, "For the seeds, you need not pay. When you harvest them, and if the crop is successful, please see whether you could share some seeds with us and the rest of the farmers in need".

Before the distribution of seeds, we had a group discussion with farmers. Following that, we unpacked and co-planted the seeds with the farmers. The farmers guided the students in the selection of the seeds. Then, together, we started to prepare seed beds for planting. They uprooted the grass and the stones on the field to make five seed beds for planting different crops. The farmers also shared the bio-fertilisers that they had prepared. They applied the manure, followed by the seeds being planted. Transect walks, convergent conversations, observations, and follow-up group discussions facilitated our fieldwork during this phase. Preparing the seedbed with the farmers, co-sowing, transplantations, and co-planting were some of the methodologies that facilitated mutual learning and de-learning. Our methodologies also enabled us to address inevitable knowledge entanglements that emerged during our fieldwork.

We revisited the seed beds after two weeks. We found that seeds had germinated only in two seed beds out of four. They consisted of radish and spinach saplings. The fenugreek and chilli were yet to show some signs of life. The seed bed with chickpeas also sprouted well. We discussed with farmers why some seeds are yet to germinate. They replied that the "viability" of the seeds mattered. The seed's aliveness and entanglement with the soil mattered the most. According to them, some seeds would remain immature, dormant, or asleep. Furthermore, the chilli seeds were so tiny and weak that farmers had already predicted they might not germinate in this terrain.

A few weeks later, we revisited the fields to see the quality of the crops. The saplings had grown well, except for a few leafy

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vegetables infected by pests. We were also happy that the spinach, sword bean (flat bean), and radish had grown well. We pulled the leaves up partially and were excited to see the medium-sized radishes. We were also happy that the red fenugreek, bitter gourd, and ridge gourd had matured. Therefore, we anticipated we could also harvest the seeds from these crops. However, these farmers had other plans, guided mainly by their experiential knowledge. When we visited a farm after a week, we did not see the green radish that was there till the previous visit. The woman farmer replied, "after some days of your visit, I harvested them and sold all of them in the market. Now my next crop will be during the monsoons". We felt sad that she did not leave part of her crop to mature into seeds. The next day, as we approached a farmer's house, someone from the inside of the house shouted to us in excitement, "We could sell five whole bunches of spinach given by you". The harvested spinach was sold for 200 rupees, a good amount for them. We were happy for them, but sadly, they did not leave any plants to produce the seeds. To our query, the farmer replied that the crop had an inherent weakness and would not have stayed healthy until the seed production stage. He said:

> Yes, we could have retained a few. However, I uprooted it because the plant seemed weak and would not have given the seeds. The sword bean seed you gave is good and will give a good yield; we can reuse it for seeds, too. Moreover, do not worry about seed restoration and sharing; if there is good produce, people here will voluntarily come to our fields and take the seed themselves without asking.

This also meant we need not formalise seed sharing as initially thought. By the end of this phase, these farmers were also convinced to continue the cultivation of native crops in select spaces. We also earned their trust in co-designing adaptive innovations in their farms. As days progressed, the farmers did share with us the seeds of native crops such as ridge gourd. Moreover, there was renewed demand for native seeds for their next cropping season. To illustrate this further, when we visited a farm, the farmer was pleased to show us that the spinach, cowpea, and radish had grown very well. However, he was more excited to demonstrate the healthy growth of the sword bean

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plants. None of us expected these plants to grow so big within two weeks. The farmer remarked, "sword bean has grown up well. If it yields well, I will expand it to my other fields in the coming season". He further requested that we bring more seeds of this crop.

LIVELIHOOD PRACTICES OF THE KATKARI COMMUNITY

The village of the Katkari community is located amidst a hillock comprising both wastelands and forests. We had to climb up a hill for almost an hour to reach the village. Around 40 out of 120 households in the village were involved in seasonal agriculture. Most of the Katkari farmers, primarily women, do not own farmlands. They farm in wastelands, small patches of land near their hills and forests. The community's vulnerability heightens during the summers when water is scarce, with less water available even for drinking. When women return from the market after sales, they fetch drinking water from the neighbouring village, a few kilometres away. We understood how challenging it is to sustain life and livelihoods in the hills situated at the margins of the ever-expanding city, and these crises had different shades during the summer and monsoons. In summer, people could not farm due to water scarcity, and during monsoons, heavy and untimely rains led to the decay of crops.

In contrast to the Thakar community, our interactions with the women farmers in the Katkari community revealed an alternative worldview to farming. An elderly woman shared her knowledge of native vegetables: "As the monsoon begins, we procure native vegetables such as Kurdu (celosia) and Takla (cassia tora) from the forests. We further leave the plants to bloom and fruit as they wish to facilitate propagation".

During the transect walk with the women and their goats, the older woman also showed us some varieties of vegetables that we were never aware of. She showed us a plant: "This is Kurdu (celosia), a leafy, delicious vegetable". Holding the celosia plant with care and affection, she showed us the flower with its seeds. She said:

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The seeds will fall and grow into leafy vegetables during the next monsoons. They need not be sowed or planted by us. Nature has her way of taking care of them. We will pluck them next monsoon when the leaves are still young. We cannot eat them once the leaves thicken or mature.

The social work students who also had their graduate-level education in Agricultural Science and Management were surprised to hear this. So far, their understanding was that this crop was a weed. This plant and allied varieties such as cocks comb were taught in their curriculum as weeds, and weedicides had to be applied to eradicate them. In contrast, here, people were making food out of it.

Though farming is practised on a very small scale, people in this village are shifting towards using hybrid seeds as they provide higher income. Nevertheless, older women in the community believe native seeds are more resistant to pests than hybrid ones. A crucial factor that they point out is that the soil's capacity to nurture and foster seeds has become weak. The hybrid seeds may be able to withstand poor soil conditions when compared to the native ones.

Gradually, we were able to mobilise around 17 women who were interested in farming using native seeds. We also realised these women are interested in nurturing and regenerating native seeds, as the cultivation cost increases with the hybrid seed and chemical fertilisers. We got permission from the village school's principal to meet with the women in one of their vacant spaces. Appreciating our goals, the schoolteacher also joined in mobilising women for a meeting. The discussions with these women were more reflective of their everyday life practices. A Katkari woman said:

Many people will be interested in growing native okra varieties, sweet potato, taro, and green radish. However, water scarcity and lack of access to water will constrain many families to pursue vegetable cultivation. During summers, women and children bring headloads of water from the wells downhill to water their plants. This may suit the cultivation of horticulture plants but may prove difficult with vegetables.

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Another woman said:

> Many people use various hybrid seeds and chemical fertilisers to increase crop yield. Nevertheless, it also has specific adverse effects on the health of both humans and non-humans. It retards the fertility of the soil. Consequently, our fields cannot produce after some time. Due to the high use of chemicals, our produce has become poisonous, harmful for humans and livestock.

Another woman supplemented this viewpoint: "Our elders used to grow native vegetables without chemicals, which was good for both soil and humans. However, now we apply more chemicals to our hybrid crops, resulting in soil degradation". We had a series of such shared conversations. During one such occasion, a woman brought some native air potato, and everyone enjoyed eating it. Simultaneously, they also shared stories and histories about this crop. Water scarcity was a concern for some women, and landlessness was a constraining factor for others. They tried to find solutions for the same, "We can use wastewater from our homes to water the plants, or plant in one's backyard, or plant these seeds in polythene bags that require less water".

After such discussions, the women gave us a list of seeds they would like to try out as part of their kitchen garden. These included names of okra, bitter gourd, ridge gourd, cucumber, brinjal, snake gourd, pumpkin, and a few bottle gourd varieties. They also asked for some leafy vegetables such as green radish, spinach, and fenugreek varieties. We returned to the community after a few weeks with the seeds. However, it became challenging to meet these women as it was harvesting time for paddy (unlike the previous weeks). These women used to work as labourers in the paddy fields of the Agri community, a neighbouring village. They would return home only after 8 p.m. during the paddy harvesting season. Therefore, we packed the seeds in smaller packets, labelled them, and requested a woman volunteer to distribute them when the women returned from work.

Though we gave the same varieties of seeds to all women, they did not plant them alike. While some planted okra first, others planted pumpkin or bottle gourd. For them, it was essential to explore whether the seeds were suited to their local

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geological and climatic conditions. These decisions were also influenced by other factors such as access to water, the type of crop that they previously had in their fields, and which among the new crops supplemented their co-existence with other crops in the patch of land (such as bottle gourd with ridge gourd, or one could invite unnecessary pest for the other). While few women planted the seeds in the empty spaces in their backyards, only some others identified small patches of land near their forests. A few women had yet to plant seeds due to water scarcity during that time of the year. These women did not want to widen their margin of risk by sacrificing the tried and tested routines for innovations and experimentation. So, they were awaiting the rain to sow the seeds that we gave them.

Some women planted the seeds in the polythene bags that they picked up from here and there. Showing her newly sprouted saplings, a woman excitedly said, "I planted those seeds in these plastic bags. The okra and pumpkin seeds could grow well compared to the rest".

She had access to water, so she also experimented by sowing the seeds of a bean variety that she already had and the seeds we provided. She concluded that her seeds were better suited for their local conditions than our "outsider" seeds. While some seeds sprouted, many remained dormant under the earth.

The aliveness and dormancy of seeds were quite perplexing for all of us. Some seeds did not grow like the other seeds. It also highlights the liveliness of beings experienced as subjects rather than objects (Tsing 2015: 243). Each seed species differs from the other, and by becoming together (as assemblages of multispecies or as our/yours), they spread and transform their storylines (Tsing 2015: 243). We realised that as community practitioners, we were following their spread and noticing the worlds they make. Our discussions amongst ourselves and these women nurtured hope:

> We may need to give a few more weeks. Some will grow, and some will become part of the earth. The seed's viability is critical. Like chilli seeds, very light seeds may not be susceptible in this part of the earth. The ability of the seed to adapt to the soil is another factor. Although the soil, in this instance, may lack nurturing quality, the

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seeds themselves may not be weak. Some seeds require certain nutrients from the beginning.

A few more weeks followed, and a woman was eager to show us her saplings, which looked healthy. We wondered whether she had applied any chemical fertilisers, to which she replied that she only used vermicompost. Arthur and Jentink (2018) have looked at "compost" as a mode of multispecies storying, which commences with the cutting and trimming of plants. It traces what "cuts" have co-produced specific materialities, meaning, and what matters (Arthur, Jentink 2018). The practices of these women also demonstrated that native seeds require limited resources to grow, but more care and nurturing are essential.

KNOWLEDGE ENTANGLEMENTS AND DIFFRACTIVE PRACTICE

In the initial days of our fieldwork, our concern was how can we ascertain whether a seed or vegetable was native or not. Whose knowledge should we trust? As days passed, we realised the complexities of comprehending what is truly native. The multiplicity and heterogeneity of diverse beings and their intra-actions emerged in the context of our practice. For example, though some seeds were being sourced from crops of hybrid varieties, the women farmers called them native, as they nurtured them, took care of them, and produced them locally. They believe that they are growing, selling, and cooking native vegetables because they are nurtured, cared for, and grown by them irrespective of the source of seed, for they "are" and "become" the natives of their land.

Another dilemma that emerged as we (faculty and students) progressed with our fieldwork was, "The hybrid seed is also an agile, alive nonhuman. Are our thinking and practice constrained by binary oppositions: hybrid versus native?". Cary Wolfe (2010) explains from the lens of profound ecological consciousness involving respect for multiplicity (whether for species difference or new transgenic remixes of animals, plants,

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objects, and humans) and exploring aspects of symbiosis, identity, and collective agency through the complex web of interaction between humans and nonhumans. We tried to diffract this thought through the lens of agrobiodiversity, commodity frontiers, and capitalist ruins (Shiva 2005; Moore 2016; Tsing 2015). We (faculty and students) realised that, "It is not the hybridity that is a concern but its association with profit maximisation and, thereby, its agency to alienate and dispossess other forms of being".

Our becoming was also shaped by other binary dispositions, where farmers started referring to seeds as "our seeds" versus "your seeds". Women farmers experimented with both seeds: theirs and ours (seeds that we faculty and students procured and distributed). Nevertheless, we could sense the entangled nature of seeds beyond categories and classifications. There were other knowledge uncertainties, too. In some places, the plants were not growing beyond a particular height, and all of us were wondering, "Why?". Some women farmers from the Katkari community attributed diverse reasons, such as lack of water, poor quality of soil, and use of chemical fertilisers, which could have resulted in this. They remarked, "native seeds need fertile land to grow. However, our soil seems to have lost its fertility".

Plants help establish, create, and reaffirm people's hopes, needs, and desires (Doody et al. 2014). Equally, their performances or agencies can be volatile and unpredictable, sometimes disrupting and unsettling people's experiences and meaning. One woman had planted bottle gourd seeds that we provided along with her stock of ridge gourd. None of them survived. Only one strand of ridge gourd was alive when we visited, while the rest had died. She had access to water. Upon further probing, we realised that she had also applied chemical fertilisers, a practice from her recent past when she could harvest large quantities of cucumber. Since then, she has been using fertilisers in all varieties of seeds. At some point, every plant would sense the chemical elements in the soil and would be impacted by the fertilisers. Consequently, the realities of seedlings performed in a particular space are always momentary, unpredictable, improvisatory, and multiple (Doody et al. 2014).

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Seeds and plants, as bodies, are also continually becoming, simultaneously material and conceptual (Atchison, Head 2013). The seed is not simply a raw material that can be manipulated in a laboratory or a commodity we could buy at a seed store (Gonzales 2013). There is a force of life in each seed, its ability to grow into a plant, flower, and fruit and spread its roots to reclaim lost spaces (Tsing 2015: 179). Once, we joined a farmer from the Thakar community in his de-weeding activity in a particular patch of land. We were surprised that he was removing the white goosefoot plant, which was used as a vegetable by the Katkari women. The seed keepers also gave us a sample of this seed, which was labelled Chenopodium Album. Our thoughts and reflections then pertained to, "what is considered a nutritious vegetable elsewhere is a weed here!".

The students were surprised to learn from the Adivasi communities that these plants are consumed as nutritious food. This was a complete de-learning process for the students, as most of the agricultural universities in the state have a standardised categorisation of what is a weed and what is not. Doody et al. (2014) theorise weediness as an emergent phenomenon arising from the joint performances of both people and plants. Native plants perform as valuable plants, as weeds, or as both, depending on age, growth, appearance, location, or the contexts in which they exist (Doody et al. 2014). Further, the contexts in which weeding and de-weeding are undertaken are in flux as they emerge amid the performances of the people and nonhumans who occupy that patch together. The emergence of weediness is a collective becoming, co-performed by people and plants (Doody et al. 2014). By constructing the discontinuous categories that constitute classifications such as weeds, we tend to project our values upon the natural world. Colonial and Eurocentric practices of categorisation and classification have undoubtedly shaped the understanding of what is a weed and what is not (Doody et al. 2014).

We also became aware of the situated contexts that shape people's livelihood practices. A farmer explained why his family does not go for vegetable farming even if he has access to water. "Vegetable farming requires more water throughout their lifespan. On the other hand, certain horticulture crops require

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water only during the initial stages and later would be taken care of by the monsoons". Nevertheless, to do horticulture, one must own land, which is often the privilege of some men. People like the Katkari women must rely on seasonal agriculture in open and common grounds, primarily facilitated by collecting and gathering wild and native vegetables. For the latter, it is not a privilege but a necessity. Further, land and water are scarce and sacred for these indigenous communities. The cultural practices of stocking and sharing seeds are the characteristics of their resilience in the capitalist ruins. In these contexts, reparation happens through practices of resistance, remediation, and mutual care (Blanco-wells 2021).

We further understood that men who owned land had the privilege of systematically organising their farming practices and being clear about where to plant which crop and what not to. They were open to new opportunities, innovations, and experimentation owing to their diverse livelihood assets. Most importantly, they had access to natural (land, water, seeds, trees) and social (network with state departments, political parties, market actors, and non-governmental organisations) capital. People who had access to land were more prone to commodification and following farming using hybrid varieties of crops. However, with the expansion of commodity frontiers in the periurban, where land, water, crops, and space get commodified, people like the Katkari communities are further displaced, dispossessed, and disempowered from their common lands and forests.

As Barad (2010) had narrated, our fieldwork, both as a phenomenon and pedagogic event, was a multiplicity of iterations, making connections (however minor they may be), weaving together a layered mesh of multiple mattering. The embodied sensual world that we share with nonhumans (seeds and plants, soil, and water) is a terrain of shifting and immanent zone of perpetual becoming (Deleuze, Guattari 1987), characterised by dynamic relations of movement and rest, speed, and slowness (Deleuze, Guattari 1987). Such world-making shows that other worlds are possible (Tsing 2015: 243).

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CONCLUSION

The capitalist "worldeater" continues to expand its extractivist tendencies, extinguishing all vital human and nonhuman beings in its never-ending pursuit of profit accumulation (Dunlap, Jakobsen 2020: 7). Contemporary mainstream worldviews of modernisation and development treat both nature and indigenous communities entangled within nature as objects that could be cheapened and commodified in this pursuit of profit and power (Moore 2016; Santha 2023). Agrobiodiversity, indigenous knowledge systems, and the custodians of these knowledge and resources are threatened due to diverse factors, such as the rapid expansion of cities into their fringes, hybridisation and genetic modification, climate change, and the globalisation of food production and consumption (Vasavi 1994).

Our action research with the two Adivasi communities enabled us to understand and empathise with how mainstream development and urbanisation processes displace and dispossess humans and nonhumans further to the margins. An ethical response to address these concerns will be to step into the indigenous worldviews that would enable us to deconstruct the mainstream development paradigms that situate nature and society as binaries and commodities. Such an approach to practice would recognise the agency of all entangled beings in rebuilding damaged ecosystems and weakened social ties (Blanco-wells 2021). Subsequently, we could explore, re-learn, and promote diverse practices that are more holistic, inclusive, and ecologically sustainable. Such an embodied community practice is always a relational process, where knowing is inseparable from the practices of being (Barad 2007; Higgins 2016). During our action research, we realised that all the involved actors (social workers, communities, men, women, children, seeds, plants, and other nonhumans) are entangled through diverse ecologies of "knowing-in-being" and "repair". These entangled processes of knowing-in-being, reparation, and restoration evolved through "seeking, making, sharing, and celebrating" (Cajete 2000: 178).

The effect of capitalist ruin on living things depends on which living things we follow (Tsing 2015). In this case, we

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followed the seeds; we followed the native. We longed to collectively notice, feel, and sense the changes in the environment. Farming and livelihood practices were explored as diverse assemblages of seeds and plants, animals and insects, soil and water, equipment, compost, and chemicals. These assemblages revealed nonhumans' agency and their relationality in a more-than-human world. The soil-seed-plant-human entanglements remind us of "our dependence on more-than-human natural processes: we cannot fix anything, even what we have broken, by ourselves" (Tsing 2015: 257).

This paper also demonstrates how a posthuman lens could enable us to understand the material and discursive manifestations of our everyday becoming, emerging from human-nonhuman entanglements (Braidotti 2019). To engage in diffractive community practice is to know the interdependence and relationality of our intra-actions (Barad 2014) between humans and nonhumans enlivened in these entanglements, between different bodies, affecting other bodies and being affected by them (Taguchi 2012). Such a perspective redefines one's sense of attachment and connection to a common and shared world, pointing at multiple ecologies of becoming and belonging (Braidotti 2019).

There is no independent subject in diffractive community practice, as both subjects and objects are entangled (Bozalek, Zembylas 2018). For example, a relational community of farmers, men and women, seeds and plants, soil and compost, social workers and community volunteers, and many others are not fixed references for understanding each other. Instead, we must see one through the entangled other (Bozalek, Zembylas 2018). As entangled posthuman subjects, we all are embedded, embodied, and yet flowing in a web of mediated relations with humans and nonhuman others (Tsing 2015; Braidotti 2018). The relational community that evolves here signifies the agency and aspirations of each being to move nomadically in the world with and across a multitude of others (Braidotti 2018).

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AFTER NOTE

As we mentioned earlier, the issue of water scarcity was a recurring concern for the Katkari women. The women used to mention how vested political interests prevented the government from sanctioning water supply to their village. Nevertheless, our shared conversations have created a sense of awareness and a climate to organise politically, demanding their water rights. A few months after our fieldwork, these women and other community members mobilised to pressurise the government authorities; they successfully got the water supply sanctioned to their village. Hopefully, this community will receive a water connection before the following summer. This micro-mobilisation and self-awareness must have happened through the agency of the seeds entangled with the everyday lives of the Katkari women.

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NOTES

[1] Hybrid seeds are derived by crossing two genetically divergent parent cultivars through controlled pollination (Lather 2023). Usually, the higher cost of production of hybrid seed is compensated by increased crop yield. However, multinational corporations producing hybrid seeds have monopolised the seed industry. As these seeds cannot be produced and preserved from previous cropping seasons as done in self-pollinated crops (native varieties), farmers cultivating hybrid crops are forced to depend on the seed market. They have no other option except to purchase expensive hybrid seeds every season. This is accompanied by the increase in the use of chemical fertilisers and pesticides too. Overusing chemical fertilisers and pesticides has degraded soil fertility and resulted in severe biodiversity loss. The environmental pollution arising out of these practices has consequences for human health. Further, the hybrid varieties are sensitive to variations in weather and climate events. Shiva (2015; 2016) argues that the hybridisation of seeds and their monopoly by corporations have deprived farmers of their seed sovereignty and livelihood autonomy. With the perpetuation of hybrid seeds, people shifted to monocultural cash crop systems drastically thus impacting local agro-biodiversity and food security of diverse rural populations (Shiva 2015, 2016).

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These shifts have also eroded diverse traditional knowledge systems that valued *naturecultures* and their entanglements.

[2] Native seeds are those open-pollinated varieties that grow naturally or are cultivated in a particular place over generations. Unlike hybrid varieties, native seeds carry all the characteristics of their predecessors and can be harvested and stored for future farming needs. Native seeds are genetically diverse and can better survive harsh conditions. They usually thrive in local conditions without applying chemical fertilisers and pesticides. They are also resilient to extreme weather events and pest infections. While hybrid seeds can be conserved for less than two years, native seeds can be conserved for up to four years under normal conditions (Gupta 2021). Unlike the hybrid varieties, their production volume is usually small-scale and may not always possess the standardised appeal (such as uniform size, bright colour, smooth textures, and so on). Native seeds do not deprive the soil of nutrients but also carry the legacy of a community's cultural heritage and local knowledge systems (Gupta 2021).

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