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Article

Finger(s)-Millet-Fieldwork-Photo: Scholarly Experiments in Use

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This paper presents six experiments that use photographs I took while learning from women farmers and food grains in Uttarakhand, India. In dialogue with Sara Ahmed's (2019) *What's the Use?*, I apply techniques central to my pedagogical practice (cropping, rotating, blurring, zooming, layering, decolorizing) and emulate plant animacy and farmer attunement to more-than-human life to transform images and revise my thinking about ethnographic politics and potentialities. Can "collaborating" with images of (more-than-) finger millet continue a process of learning in the field(s)? How might doing so unstick ways of thinking that stem in part from my own conditioning as a bourgeois subject and worker within the political economy of the academe? While recognizing that/how power circulates through me, a US citizen, I try to disrupt ingrained scholarly habits, keeping in mind that the point of this exercise is to expand possibilities for collective social justice work in academia, food systems, and beyond.

KEYWORDS
millet, Uttarakhand, experimental form, Sara Ahmed, fieldwork, photographs, academic labor, anthropology, feminist, agriculture

1 | INTRODUCTION

ABSTRACT(ED) [extracted, removed, impersonal, disassociated from specificity, academic imperatives]

AWRY Squared's call for experimentations in form rustled up leaves of thought well before the first signs of autumn in Brooklyn.

I clicked open the digital archive of photographs I had taken in the central Himalayan foothills of Uttarakhand, India over several fieldwork trips between 2011 and 2019 for doctoral research in anthropology. The photos resided, dormant, in the hard drive of a desktop computer in my bedroom-office, more than 11,000 kilometers (7000 miles) from where they had been taken. Distinct images stitched together moments of life and labor around *mandua*, a hearty food grain known in English as finger millet and throughout much of India as ragi. Images of *mandua* as photosynthesizing saplings piercing through the dry soil of terraced plots, as hefty flat breads stacked on metal plates, as dark beads nestled in rusted storage tins. Images of women and girls with whom I had spent time – weeding fields in the heat of May, collecting pine needles for buffalo bedding under the forest canopy, cooking by firelight, posing with me at weddings. What had been moments in a flow of learning, interacting, doing were now elevated to narrative importance – scenes that seemingly told the story – because they retained their visual resolution. However, as digital incarnations, they did not fray or fade to bear the imprints of time or travel, detracting from my ability to connect with them as personal lived experience.

In Uttarakhand, it was "tomorrow" early morning and the height of the monsoon, which could mean rain for days with no electricity and hardly a vehicle able to cross a collapsed stretch of mountain road. New York City was hot, sticky, and early evening. From my one-bedroom perch, I could hear a car honking, loud construction on a luxury apartment building going up, and a squawking blue jay calling me to peer out a window and catch a view of the Statue of Liberty, miniature at a distance. On the computer monitor, open library tabs poked above the crest of photos, exhibiting the day's earlier activities of identifying readings for the classes I would be teaching in a new, potentially long-term, position after numerous stints as an adjunct or on temporary contracts as a member of US academia's massive contingent labor force. The photos and library tabs resided like kin within the digital ecosystem central to my work as a 'scholar" and "teacher," yet they materialized another, affectively profound, disjuncture – one (among others) at the heart of why scholarly production, for me, has often been accompanied by paralysis.

Academia requires that I glide between tripartite roles/realms: in the "field" (in this case, my relating mainly to more-than-human life in rural Uttarakhand, India), on the "page" (my relating mainly to English readers, largely connected to the university system, through which I gain voice and professional legitimacy), and in the "classroom" (my relating mainly to students I am hired to teach ways of writing about, learning about, or analyzing society). This does not include all that comprises my more-than-self that interweaves and extends beyond these roles/realms, including my interactions with administrators and colleagues whose assessments determine my vocational security. As many critics of academic research have argued, "the field" – and most problematically indigenous life and heritage – has been treated like the raw material to be removed, extracted, explained, inserted, defined, stamped, scrutinized, rendered (Tuhiwai Smith, 2012; Simpson, 2007). Even when thinkers/activists bridge or collapse "field" and "page," livelihood within the university system often depends on whether and where one's work is accepted (Cahill, 2007; Chalmers, 2017, Cunneen et al., 2017; Fine, 1994). "Field" relationships are, therefore, structurally subordinate within a professional hierarchy where resources and security conferred to "scholars" vary profoundly based on rank and connections and where students are pigeonholed as customers (borrowing, if they cannot afford). These realities form the existential truth of who I am as a "scholar"; they impact me on a cellular level. I must, nonetheless, rope them off from my research, which should further a line of inquiry about finger millet, women's work, or more-than-human

world-making absent these conditions of knowledge and labor deemed irrelevant.

Over the course of doctoral study, my initial plan for a collaborative project with seed activists in Uttarakhand had detoured. I ended up spending most days with women and teenage girls who sustained and were sustained by vegetal, human, and animal life in the hills as daily practice, but not in overtly politicized terms. Now, at a temporal and spatial distance, my presumed task was to compartmentalize, narrow, and unknot – to make complex and interwoven forms of life legible and relevant to academic conversations, at best ones concerned with power and justice. However, regardless of what I communicated, the manner and forum in which I needed to do so for professional legitimacy seemed to prepare the conceptual ground – whether obviously or subtly – for "cognitive injustice," (de Sousa Santos, 2018), i.e. profound inequities in how different forms of knowledge are valued within the coloniality of power (Quijano, 2000). That my work concerned seeds, land, food, and agriculture heightened the stakes. These are sources of life being "grabbed," financialized, and privatized throughout the world in ways that must be highlighted, resisted, and refused.

Fieldwork photos were especially sticky. Images of dark-skinned women farmers abounded in promotional materials of global institutions and corporations (including the Gates Foundation and Monsanto) that now sought to commodify "climate-resilient" food crops such as finger millet, which have long been a bulwark for the rural poor in Asia and Africa against the "slow violence" of capitalist agriculture and economic globalization (Nixon, 2011). I had observed various NGO executives and fieldworkers pose women and children to present photographic evidence of need or gratitude to far away funders. Yet, I could not just dismiss these representations as "bad" because everyday struggles in neoliberal India means imperfect choices, more so in the face of climate disasters. In June of 2013, massive floods in Uttarakhand destroyed lives, homes, fields, roads, and dreams; donations helped to rebuild and provide necessities, despite corruption and institutional theft. Regardless, I could not overcome my personal discomfort with how these "real life" representations reduced complex mountain ecologies and relationships to shorthand and symbols that a small, elite audience could automatically decipher and classify within preexisting frameworks of knowing.

Relationships of trust could open onto future collaborations. But, were the eyes, grains, fingers, feet, stalks, fields peering back at me from a computer screen offering an occasion, in the here and now, for creative and ethical world-making?

There was something else at play too, something entangled deeply in my sense of "self," which decolonizing work focused on asymmetrical power dynamics between "researcher" and "subject" had not quite resolved. Most of my peers within the neoliberal academy are contingent workers, debt-laden, with scant social power, and prey to exploitation, expropriation, and even assault. To need to publish, to need a paycheck, to need approval, to need references, to need employment hems in what is possible to challenge, do, and imagine.

This is why AWRY Squared's call resonated and why I wanted to answer it.

But what does it mean to experiment meaningfully, rather than as a superficial exercise? The divide between creative expression and scholarship is riven through my mind and work, even as others I admire have unsettled the division (Gumbs, 2018). The goal of extending knowledge in a field or discipline can be contrary to the goal of personal insight or expression. The times when I have most been able to merge these have been related to teaching – when I am perpetually expecting imperfection, feeling the responsive presence of my audience-collaborators-interlocutors, opening my mind to new ideas and the possibilities that failure and constraints allow, and actively processing the material conditions of academia.

Somewhere around the time I received this call for papers, I fell
into a rabbit hole
of plant philosophy,
and down I went.

Clawing my way back to a stack of student papers, I got stuck in an uncanny overlap between the "subject" of my research and the problematics of scholarship. A historical proclivity in European metaphysical and philosophical thought to elevate (hu)man consciousness through a positioning in opposition to plant life, rendered unthinking and immobile (Marder, 2011, 2012, 2013, 2015; Irigaray, 2016). Sharing this intellectual genealogy, the rise of the modern university system accompanied the development of academic expertise as triumphs of human consciousness, epitomized by design, reflection, compartmentalization, assessment, and findings (Wallerstein, 2004). Yet, plants, through their existence, socio-ecological relationships, and place-making capacities, refute such antipodal positioning against human thought (Marder, 2015). What could that mean, then, for fieldwork images of vegetal life and human-plant conviviality?

The photos were inviting me to do something.

But what?

On the hard drive where they had been hibernating another potential collaborator, scanned chapters of Sara Ahmed's What's the Use?, had made a home. I sensed that these neighbors wanted to share time and engage.

ABSTRACT [condensed, synthesized, the idea, boiled down to concentrate]

This paper presents six experiments that use photographs I took while learning from women farmers and food grains in Uttarakhand, India. In dialogue with Sara Ahmed's (2019) *What's the Use?*, I apply techniques central to my pedagogical practice (cropping, rotating, blurring, zooming, layering, decolorizing) and emulate plant animacy and farmer attunement to more-than-human life to transform images and revise my thinking about ethnographic politics and potentialities. Can "collaborating" with images of (more-than-) finger millet continue a process of learning in the field(s)? How might doing so unstick ways of thinking that stem in part from my own conditioning as a bourgeois subject and worker within the political economy of the academe? While recognizing that/how power circulates through me, a US citizen, I try to disrupt ingrained scholarly habits, keeping in mind that the point of this exercise is to expand possibilities for collective social justice work in academia, food systems, and beyond.

2 | EXPERIMENT 1: PHOTO(SYNTHESIS) PUZZLE

In Retrospect:[1] *In Experiment 1, I directly work through and with Sara Ahmed's (2019) study of "use," a text which is both conceptual and an unfolding dialogue between images and words. Ahmed's method of inter-image-textuality inspires why and how I use "use" throughout this work. As generative as Ahmed's work was for me, at each turn I encountered certain limits and had to work out if and how I could create from where I found myself. Each image with caption is an articulation – that is to say, a manner of expression, a point of arrival and departure, and/or a joint between the sections A-G.*

A. *Puzzling*.

I began to experiment with bringing the images together after months of working with them separately. The resistance of the photos to my directives, whether to place captions underneath each one or group them in ways that

[1] Each experiment's "in retrospect" is an edited excerpt from my response to Ali Lara's review of this piece. I turned Ali's letter and my reply into a dialogue and companion piece entitled "Talking Use with Ali Lara and Priya Rajalakshmi Chandrasekaran." I noticed that I mentioned every experiment at different points in this "conversation," as if I had been working out something different and specific when working on each one. Therefore, I have integrated these "somethings" into this piece, creating another later of dialogue. I am grateful to Ali for the provocation.

CAPTION 1 [top left to bottom right] *1 - *mandua*/ragi/finger millet/Eleusine Coracana, Uttarakhand, India (Kumaon, July 2014) *2 - Opened & closed plant fingers (July 2014) *3 - Woman depicts *mandua* (Kumaon, May 2014) *4 - Pooja cleans (feet +) *mandua* grains (Garhwal, Oct 2013) *5 - I clean (feet +) *mandua* grains (Oct 2013) *6 – Renuka organizes *mandua* harvest (Oct. 2013) *7 - *mandua* seeds in open palm (March 2014) *8 - Heera sows *mandua* (Kumaon, April 2014) *9 - Heera sows *mandua* 2 (April 2014) *10 - Husband & bulls prepare field (Kumaon, April 2014) *11 - Cannisters of seeds/grains (Kumaon, Nov 2014)

would define their relationship, thwarted any straightforward process. Was this surprising? From the start, the photos expressed a rebellious disposition. It felt less like I had selected each image from a fieldwork archive than like each had pulled in the next, even if they were responding to my sensibilities. It was clear they favored proximity over separation. However, it took weeks of resizing and repositioning images and words before they seemed at home or communicated anything beyond out-of-placeness. Then, they spoke to me of patterns: the life cycles of seed-grains; women farmers working land; feet, fingers, hooves in motion; intermingling plant, animal, and human energies; a color palate of the countryside during the months surrounding the monsoon. It bothered me to see them floating on a page unmoored. So, I added captions to anchor them in place, time, and relation: the central Himalayan foothills of Uttarakhand, India; 2013-2014; mixed crop fields; a food grain known as *mandua* or kodo in the hills and ragi or finger millet throughout India and globally; bulls and people – a husband, Pooja, Renuka "Didi" (older sister), Heera Didi, me – performing or explaining different forms of agricultural work.

Noticing that the contours of the evolving shape intimated the uncertain process of arranging the photos, I added a blank box to make the observation visible.

Caption 2 In the final instance, I layered a white box on top of two photos. The addition of empty space "completed" the **puzzle**.

B. *More-than-human use*.

A work by Sara Ahmed jostles my imagination in present tense. It is not Ahmed's (2021) writing on complaint, which resides at the tip of my brain as an fount of conversation and validation among fellow "feminist killjoys" who have been contingently employed or faced targeted harassment from right-wing groups for challenging conventions of power within the university system (Durrani, 2021; Kamola, 2019). This earlier meditation – on "the uses of use" (Ahmed, 2019) – had been keeping quiet company with familial thought fodder and lists and heaps of unfinished writing on a treasured hard drive that houses life my life cannot accommodate yet fits into the palm of my hand.

Reuniting with the text stirs me. The (inter)play with words and photos and Ahmed's resistance to easy reassurances or predictable outcomes makes me want to engage, think, create (Liebert, 2022).

In Ahmed's text-world, the concept of "use" is expansive and versatile, both for what it connotes and what it allows a writer to do. I imagine it as a farming tool that supports everyday more-than-human world-making in Uttarakhand and elsewhere – a trowel that digs or twine that tethers. I realize that, in some way or another, "use" materializes in each of the "puzzle" photographs and acknowledges something about the material relations they depict. I see "use" in women sowing *mandua* seeds, in the seeds' reliance on hooves and hands to complete their cycles of reproduction, in a man steering a bullock cart to unpack soil before the monsoon planting, in bulls metabolizing wheat stalks recently harvested from that soil to maintain the strength for plowing, in how a farmer's fingers mirror the form *mandua* takes growing outside her door, in a plant transforming nutrients, water, and sunlight into growth down, up, and sideways, in soil clinging to roots against the pull of torrential rain and gravity; in my moving a blinking line on a screen with a black device in my palm.

The graduate schooling I received in anthropology emphasized political economy and trained me to see "use" through a framework of labor and the production of "nature." In farmers' efforts to cultivate a livelihood and in my own, I understand that human labor requires using "nature" (-which-includes-human), which in turn transforms "nature" (-which-includes-human) (Marx, **?**; Foster et al., 2010). However, indigenous philosophies and agroecological ethics expand "use" beyond epistemological constraints of human action. "Use" can encompass ecological synergies, ancestral sapience, and the qualities and behaviors of nonhuman life – all of which are deeply, even if not solely, material. In both small farmer and academic fields, "use" has become a battleground over the sources of life, as investors who have amassed immense social power with the rise of finance and tech capital manipulate the laws of global economy and nation-states to determine who can use what, where, how, and at whose benefit or demise, rendering most anything that is not spoken in the idiom of commodification illegible on a planetary scale.

Completing a puzzle that one has spent a long time working on can elicit feelings of satisfaction that every piece is in its place. This "puzzle," however, does not cohere into a seamless rural scene that offers an idyllic alternative to globalization or capitalist agriculture. There is Heera Didi, whose family cultivates a small parcel of land and lives in the segregated Dalit side of a village, standing alone because most of her relatives have left in search of livelihoods beyond the cage of social and economic exclusion. There is the fact that no woman pictured, now almost a decade ago, legally owned the land she tended, despite a 2005 federal amendment eliminating gender discrimination in coparcenary (Government of India, 2005) – and this structurally dissuaded women from collaborating across caste lines or escaping familial abuses. What is not plainly visible begins to stand out: the "time-space elongation" (Katz, 2004) threading the moments together – for example, the distance of rural places from circuits of political and economic power; or, how women work harder and sleep less because monkeys and boar take to ransacking fields when hydropower dams and military roads fragment or flood their abodes or when climate changes and deforestation endanger their food sources.

In contrast, I can also apprehend what Ahmed (2019) calls "queer use": reciprocal ways of place-making that have been undercut by capitalist regimes of value (Ahmed, 2019). The care people take to tend to life that has been devalued by governmental policies and market trends. Photosynthetic energy elongating lines of farmer knowledge. Multispecies interdependencies weaving a skein of survival as established bonds and patterns fray. The inter-temporalities of different beings accommodating to each other's rhythms in ways that can be trusted but not easily photographed or measured. Quotidian "women's work" knitting together kitchen, forest, and field through circuits of practice that have survived through and against battering economic and environmental forces.

The "puzzle" speaks, but not of a unified vision or narrative.

Looking can invite listening. The more I "look," the more the seams melt. While each image retains its distinctiveness, they are pressing into each other, leaning on or against each other –

C. *Existential fragmentation*.

I recently began listening (again) to David Harvey's (2019) public course on reading Marx's Capital. His opening remarks at The People's Forum[2] help me to understand why, despite the ways I understand my scholarship and teaching to profoundly shape each other, I cannot shake an underlying sense of existential fragmentation within the "neoliberal corporatized academy" (Harvey, 2019). It's a textbook example of the alienation produced through the social relations of "value in motion," which assume a life of their own, beyond the scope of a single individual (Harvey, 2019). In US academe today, this is the outcome of labor conditions that prevent people from expressing themselves or interacting with others as complex and vibrant beings (even as deep friendships can form despite or against such conditions). Yes, making some kind of sense of the world engenders ethical action, and universities are important places that give us somewhere to do that. But these practices themselves get contained, packaged, and sold by institutions of higher education whose primary imperative has become to reel in "customers" (students) on lines of debt. Increasingly, faculty members are the ones who perform the time-consuming tasks that routinize and rationalize a caste system which creates and divides "second-class" contingents (to be shoved out or kept spinning around the rotating door of contract positions) and "deserving" professors (whose relative security and interpolation in the production of collegial disposability produces a kind of inurement to, and even fanaticism about, the façade of merit).

We are at a frightening historical juncture when "conservative" politicians, ethnonationalists, right-wing provocateurs, and powerful Boards of Directors can criminalize or squash curricular efforts that – as well as educators who – value social inclusion or speak truth to power (Chatterjee and Maira, 2014; Salaita, 2015). Yet, for me, it has largely been the way things are and are expected to be within academia – normalized social relations, habits of mind, and patterns of use – that have worn me down and delimited my imagination. And these create the everyday

[2]This course is available as a podcast published by the People's Forum. Located in Manhattan, the People's Forum "serves as a movement incubator for grassroots organizations and individuals to gain knowledge, connect, and exchange ideas for collective action."

conditions of alienation, fatigue, and insecurity conducive to crackdowns on academic freedom (Pena, 2022).

My concern in these experiments is less the aesthetics of form than breaking the vessel of how I do scholarship-as-usual and being open to the discomfort that spills out, the rivulets of cognitive dissonance that might "intrud[e] into consciousness" (Ahmed, 2019, p. 21).

A family of birds, as Ahmed (2019) describes, builds a nest in a postbox. Once that postbox becomes home to avian tenants, it recedes from societal norms of circulation. No longer a respite for holiday cards, credit offers, and collections notices, the postbox both unsettles and illuminates what had seemed natural before: the ways debt and care use the same portal to enter people's homes and lives and so intimately reside. It also shows us that something humans designed for a certain purpose holds the potential to function otherwise (Ahmed, 2019).

At the moment, breaking the vessel of how I do scholarship-as-usual shifts me away from writing "about" about fieldwork and towards writing as an extension of fieldwork and its modalities of attunement.

I have a sense of purpose and curiosity, yet cannot outline a shape, argument, or outcome.

D. *Material memory.*

The prefix "photo" derives from Greek, meaning light.

Its proto-Indo-European predecessor is bhā: to shine, to illuminate. The green field at the top-center of the "photosynthesis puzzle" calls my attention. In Caption 1, I labeled it"*2 - Opened & closed plant fingers (July 2014)." I don't recall taking it, though I am certain that I did so to be able to later recall how tall and lush the crops had become just a few months after Heera Didi broadcast *mandua* and rajma seeds onto fallow earth.

The image revives the itch and tickle of reeds against my ankles, the discomfort of burning skin, the searing midday heat.…

Yet, the contours and colors hold remembrances beyond my personal and sensory recollection. As Michael Marder (2013, p. 127) explains, they "keep the memory of light itself," rather than an image of it. What I am calling "green" were chlorophyll molecules drinking in the intense sunlight that drove farmers into the cool sanctuary of their homes. "Green" expresses the life-giving mechanisms by which the crops in that field were interacting with sunlight to

make energy available for photosynthesis; drawing up nutrients mixed with the recent rains; absorbing atmospheric compounds, including my exhalations of carbon dioxide; creating food that would become tissue, root, stem, leaf, and grain. In other words, a plant's memory of light is not representational but cellular, "retain[ing] a trace of the remembered thing itself, in place of its idealized projection" (Marder, 2013).

The photograph also holds memory beyond what's circumscribed by human intentions and reactions. It is an entity with which I am interacting on the page. The shapes and colors I identify as *mandua* are composites of shadows, shades, character, clusters, and vertical structures produced by light waves bouncing off the tissue of leaves and stalks and nodes and sheathes into a niche behind the camera lens, where a sensor, installed with precision by the fingers of a worker whose life is bound to mine, recorded them as lines of digits, endowed with the capacity to be translated into an image.

There is synergy in how plants and pictures use light to produce memory that exceeds the representational, phenomenological, or ocularcentric (Castro-Gomez, 2005). Experimenting with the photographs, then, might be a way to respond to this photo-synergy and be open to it, while carrying human remembrances and meanings.

As I stood in this field that July afternoon with a cap pulled over my eyes and a dupatta shielding the back of my neck, as I pressed the small button of a digital camera to materialize this photo, my exposed forearms and the tops of my feet were also absorbing and photosynthesizing the sunlight.

Caption 5 – Photo*[graph]* of Photo*[synthesis]*

“  ”

E. ***"Use could be described as a contact zone" (Ahmed, 2019, p. 40).***

Much of a plant's movement happens below the ground of seeing is believing (Marder, 2015). In Uttarakhand, I learned that the roots of *mandua* are crucial in mixed crop fields because they are adept at drawing up water on high slopes far from watersheds. As with many grasses, finger millet doesn't use a tap root that burrows deep. It grows a nest of shallower tentacles that knit thickly together and with the roots of other plants to suction water up and hold soil in place (Jardhari et al., 2012; Chandrasekaran, 2023). Farmers plant *mandua* with other food crops such as soya

and kidney beans. This close association invites *mandua* to hydrate their roots while simultaneously benefiting from the symbiosis the legumes have with the rhizobia bacteria nestled in the nodules of their roots that make nitrogen accessible (Jardhari et al., 2012).

Mandua roots are part of an intricate, subterranean "contact zone."

Linguistic roots also create "contact zones."

Such as the root words of "photo."

1. **-graph**. A term I learned early in my formal schooling to mean written or printed.

I think of women's literacy campaigns in Uttarakhand, as well as the generational divide between mothers who couldn't read or write – or who had learned to do so with fierce determination and support – and their daughters finishing high school or pursuing college degrees in the small hill city of Almora. I witnessed how these changes opened political and practical avenues to claim legal and customary rights, social status, freedom from abuse, and livelihood. The web of personal and family survival also knit in forms of knowledge that a blinding focus on "development" and modern education obscured. For example, women I had met who had not attended school had learned to identify plants and their properties through idioms of song, storytelling, and agroecological practice. They had also learned their various places in rural society by where they were and were not allowed to enter. When Heera Didi broadcast seeds she was not displaying ignorance, as suggested to me by a couple of plant pathologists; she was co-drawing a "random" pattern of vegetation with the winds, rains, bullocks, seeds, microbes, soil, and employing a method trusted to reap harvest, God willing, by those who had taught her in less precarious times. Heera Didi had taught herself to read the pixelated characters on the flip phone she kept tucked inside her saree blouse. On occasion, we stood side by side as she scrolled through names and I jotted notes feeling the heaviness of a pen that could not shake off misgivings about what it meant to "do research" ethically when the conventions of "research" have done so much harm (Tuhiwai Smith, 2012).

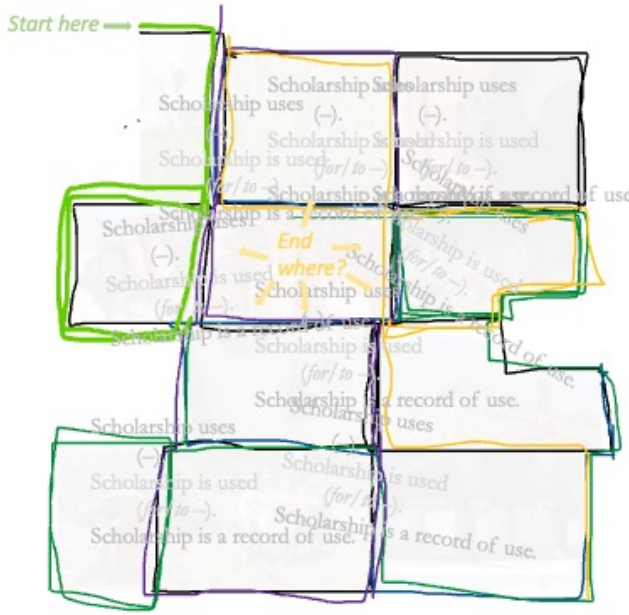
2. **-synthesis**. A term I began to contemplate in graduate school, which I associate with both the traps of coloniality and anti-colonial possibilities within Marxist thought. There was Hegel's idealist conceptualization of synthesis (solution), resulting from a confrontation between thesis (existing theory) and anti-thesis (problems with it). I learned about how this theory performed work in the world and mirrored what was being done in it. About how its binary framework of power justified the brutality of genocide and slavery, destroying indigenous use practices, and violently extracting value out of land and forced labor. Edward Said (1979/2000, p. 135) wrote, "Imperialism was the theory, colonialism the practice of changing the useless unoccupied territories of the world into useful versions of the European metropolitan society." I read Hegelian synthesis into the transformation Said described from useless to useful for and the "necessary" dispossession of communal homelands. I came to recognize intimations of these principles in the imperatives of scholarship and funding applications: identify a "gap;" produce "new knowledge," explore new domains, and progress the discipline above all else. The rigidity of the mold felt imprisoning, though forcing myself into it taught me things, and I used it to make a living. Much of what I understand as knowledge has blood on its hands – even the awe that fills me when I behold the intricacies of a plant's capacities of photosynthesis to generate life derives from histories of plundering plant life and indigenous heritage to build empires and catalogue useful information. Reparations are in order. However, I was also taught that from within "Western" traditions, Marx turned Hegel's paradigm on its head, arguing that ideas and ideologies grew out of material conditions and not the other way around. By grounding knowledge in materiality, one did not end up with a binary or elite view of social power. From the grassroots, one could tap into a web of historical contradictions. These could connect people and grow collective consciousness. "Material" signified class but was not limited to it or to "human" society. Material also meant ecology, land, "resources," seeds – the necessities of life.

I've allowed my thoughts to drift.

A familiar fear seizes, as happens when I face a blank page or a creative project that might never find what it was meant to be.

Will this take me anywhere worth going,

or into a maze I won't find my way out of?



Caption 6 – Thought Peregrinations, Brooklyn, NY

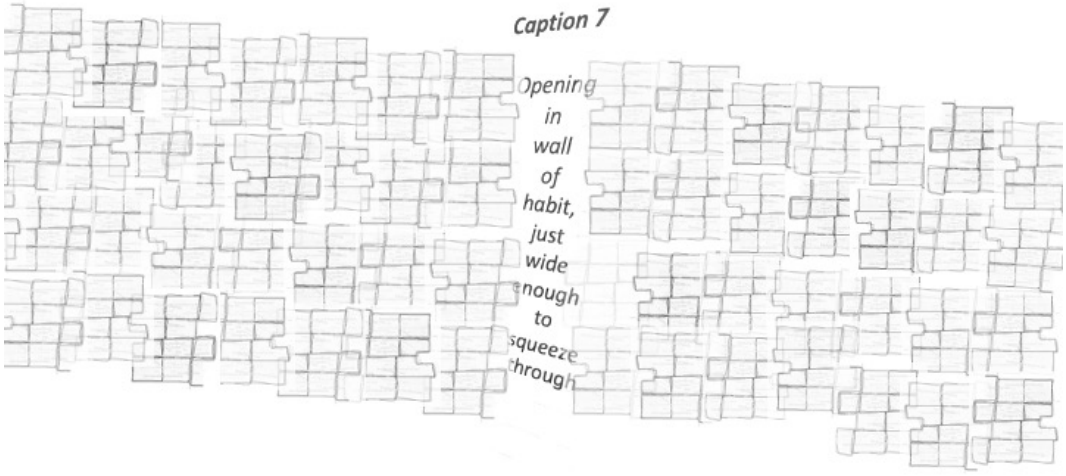
F. *Ambling*.

Working on this "photo(synthesis) puzzle" a few months ago, I would take walks. Spring, 2023 was dawning in my neighborhood in Brooklyn. After a long winter, the trees, ever attuned to the succession of warming and lengthening days, had let down their guards, trickling energy into scrawny branches, whose bursts of color and scents attracted bees and migrating birds and other seasonal accomplices. The climate in New York, as throughout the world, was changing – undeniable in the storm surges and summer heat and changing timing of the seasons. Nonetheless, this annual transition, with its affective and sensory familiarity, with its warm hold and cool touch, still offered continuity. Forsythia bushes bloomed and then scattered golden confetti onto sidewalks. Daffodils added their delicate perfume to the bouquet of newly laid tar, weed, and piss. The cheeps of House Sparrows intermingled with sirens and children's squeals. Red maples, magnolias, and Callery pears blossomed. The ruddy beads on cherry branches and redbud bark transformed into glorious pom-poms. I thought about how photosynthesis was everywhere around, demanding human attention. Then I thought about how photosynthesis wasn't everywhere around because it has a social geography. Material on my syllabi illustrated how streets and neighborhoods in NYC had or lacked trees due to histories of redlining, displacement, racial segregation, and white privilege – which meant the temperature, and my experience of it, varied by zip code. Photosynthesis was "everywhere around" because I could pay below the market rate to live in a one-bedroom apartment owned by a family member who had been able to amass capital.

On a whim one afternoon, I decided to turn right walking out of the building. It had struck me that I always went left, as if an invisible wall prevented me from choosing another way.

The break in route and from routine shifted how I moved. I walked slower. I was meandering rather than passing through or getting to. I was more in the world and less in my head.

As I was taking walks a few months ago, this "photo(synthesis) puzzle" was working on me.



G. *Graphing, Synthesizing*

A tree's chromatic vibrancy in the spring displays creativity: an autotrophic process of making energy and harnessing momentum to enliven every part of itself by using every part of itself after a period of metabolic hibernation. The mechanism of its revitalized self-expression calls the attention of creatures fundamental to its survival and its ability to sustain other life.

Finger millet is self-pollinating, one reason why families in Uttarakhand trust that it's a reliable partner in sustenance. The farmer, attuned to *mandua*'s needs and temporalities, drops seeds after the first rains, knowing that if and when conditions are suitable, the life held by each one will break through the seed coat and hatch roots, and a sapling will shoot up into the light.

Photosynthesis expands a plant's being – its tissue, bark, fruit, flower, root, seed, and capacity to make living possible for beings beyond itself. This expression of wholeness has everything to do with how a plant is situated ecologically and socially, in relation to what and when and how. Its wholeness is not contained or singular. It exists and manifests through reciprocal flows of use that extend beyond its own life cycle and needs to other life forms and elements in proximity. For a plant, "synthesis" is process of making place through growth that has integrity, in the sense of "outwardly" expressing internal processes that take the world in. As the writing of Robin Wall Kimmerer (2015) shows, scholarly writing also can be a practice of moving towards integrity, and synthesizing aspects of our fragmented lives to feel how we are situated, where we stand in relation to more-than-human others, or what the world is asking of us.

3 | EXPERIMENT 2: HANDS

In Retrospect: In Experiment 2, I am working through questions of method. I don't need to subject a farmer's gestures to someone else's theory of interpretation. I can understand them as theory embodied and learn both from the thoughts they elicit and the movements of my own hands performing work of a different kind.

We are sitting the living room of a new home being constructed. A woman from a nearby ashram who has been active in mobilizations against deforestation brought me here to introduce me to a farmer who grows *mandua*, though farming has declined in this village. We sit side by side, in two plastic chairs. As we chat, people drop in, stay a while, leave. Noone calls her by her name. She is bua, didi, chachee, ma (aunt, sister, aunt, mother) even to those with whom she doesn't share a family relation. In these hills, identities do not float "freely" in the world, they disclose relations and heirarchies. Recently, I had visited Vijay Jardhari, a farmer-activist from Garhwal who had made it his mission to find and circulate hundreds of varieties of "traditional" seeds, whose subtle differences spoke of vast ecological diversity. By then, he had identified thirteen varieties of *mandua*. When I remark on this, she says there are "two kinds": the closed and the open hand. In the field, their difference is visible. In the harvest, it ceases to matter. "Eik hee hai" – they are one.

As she speaks, her right hand shifts between a soft open palm and a cupped hand with the five fingertips pressed together. This reminds me that the English name for *mandua* is "finger millet," a term that had seemed to me somewhat anthropocentric and anthropomorphic – emphasizing its likeness to human physiognomy and conditioning eyes to see this attribute first, and to remember it. However, now I am struck by something else, or something more. How she mimics the plant to bring it to life and mind, how she uses her fingers to conform to the plant, how her gestures embody her understanding and enhance mine. Also, how that same open palm must have rolled ropes of dough mixed from the milled grains, and how the same pressed fingers must have pinched that dough into balls to be flattened and roasted on a flame.

Now years later, movements of my own hand – dragging, pulling, and clicking a computer mouse – revive the moment.

Using presentation software that has become a common teaching tool for me, I've transformed her gesture, recorded in light, into a charcoal sketch. As I focus, the room quietens, and it becomes the two of us, one hand touching another. I envision the other hands yoking us together, hands in a global web of assembly line workers, engineers, salespeople, contractors, flight attendants, truck drivers that make this digital interaction, and our real one, possible. Her hands and theirs remain present as mine cuts, crops, copies, pastes, rotates, erases, darkens, alters. I feel a bit possessed, like something has taken hold of me. I've had comparable experiences as a teacher. Despite sound advice to list my goals and backwards design my lesson plans, I often find myself doing the opposite – playing with textual and visual fragments and deciphering what I most deeply want to communicate; a historical truth, a feeling, a question to sit with, a word to sit in. The process has both backfired and brought a classroom to life.

Michael Marder's (2013) "non-conscious intentionality" offers a lens to understand this pedagogical inclination and its connection to my draw to fieldwork in agricultural fields. It's a way of thinking about the awareness, sensibility, and existential purpose expressed by plants through movements, such as rhizomatic and multi-directional growth, that aren't designed, scripted, or planned. These subtleties of vegetal agency and animacy are "customarily disregard[ed]" (Marder, 2011, p. 85) within dominant rhythms of everyday life and use, when one's actions must be "productive," or obviously useful for capitalist accumulation. While meant to apprehend the embodied intelligence of plants such as *mandua*, "non-conscious intentionality" can extend to a farmer's casual imitations of that plant and my

process of feeling my way towards understanding or a form of expression. Such overlaps help to shift us away from ideologies steeped in differentiation and hierarchy and towards spaces that welcome and learn from plant-human kinship (Anderson, 2013; Miller, 2019; Salmón, 2000; Turner, 2005).

I also see a connection with multi-species and more-than-human bonds of trust that have continued genealogical lineages of *mandua* and other "pāramparik" (traditional) food crops over millennia. A few months after the living room interaction, I visited again with Vijay Jardhari. I waited as local reporters interviewed him about the hundreds of bean varieties he had gathered throughout the state. After they left, he opened small packets hand made from old newspapers to show off their range of color, size, and shape. Though he was working to revive endangered foods and seeds, he was not intent on farmers thinking in terms of scarcity and loss, and he wasn't focused on quantitative goals to measure recovery. As he explained, the bounty of biodiversity and the promise of sustenance here, where microclimates abound and terraced fields are rainfed, never relied on a centralized plan for yield or conservation, but on the fabric of ecological trust. This is why efforts to classify and collect "plant genetic material" often accompanied further loss of species; they were part of a way of thinking that eroded, rather than strengthened, the small-scale agrarian practices that stitched together that fabric yet did not come with assurances (Jardhari et al., 2012). Trust is about place making, mutual "use" relations that relied on "contact" (Ahmed, 2019), co-stewardship, and shared risk – which created the conditions for, and benefited from, biodiversity. It is not instrumental.

I sit with this belief in trust and with the farmer's intuitive gestures, and as I interact with the photographs, trying to be open to what grows and unfolds. The process unsettles me; there is no clear way to know if it is "done" or will be useful in any sense.

Gradually, it becomes a call and response between movements that spark observations and observations that animate movements.

The hands multiply.

Hand, Hand, Hand. Hand. Hand.

The shape of hands. The use of hands. The work of hands.

Plant fingers and human fingers overlap, grow out of each other.

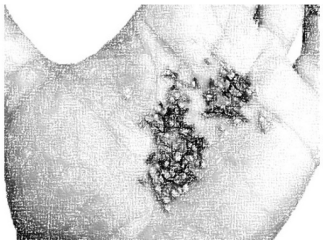
Plant fingers and human fingers share cellular kinship and lineages of co-evolution, declared through anatomical likeness.

Genetic technologies can splinter hands into data bits, into codes that can be arranged and rearranged, knowledge transformed into information to be filed, collected, stored… carefully designed according to the proclivities and intentions of the funder. This was "necessary" in the global race for scientific advancement, because a rising post-colonial nation with over a billion mouths to feed faced terrible heat and drought in its agricultural zones, because it was already well in motion, because corporations and governments have invested so much, because it was progress and progress was good and necessary for its own sake. The arguments I had heard made perfect sense within their frames.

But the collage talks back to them. It asks what these rapid transformations mean for hands, actual hands. It asks whose hands should hold the levers that will determine the course of which technologies we invest in as society and how they will be used. Would seeing hands as bits of data make it impossible to recognize the use and creativity of plant and farmer hands? Would it fortify or would it tear away at the care and familiarity epitomized by human fingers mirroring finger millet? Would it strengthen ecological "trust" and the social practices that cultivate it, or would it make such bonds "useless" (Said, 1979/2000) and vulnerable to "biopiracy" (Shiva, 1999) because only a narrow group of visible benefits would be identified as aims? It is one thing when a way of life faces the possibility of death; it is another when death is made inevitable, and "saving" what is useful to those in power becomes a mechanism of extermination.

To see human hands growing out of grasses and grasses growing out of human hands reminds me that farmers in the hills have long cultivated "plant genetic diversity" in ways that were undetectable. They did do by seeing plants through a prism of likeness and relation. Ultimately what mattered was the health and vitality of each plant and the field, which would determine what to use as grain, what to use as seed, and how much there would be to eat. This more-than-human ethic is embedded in the materiality of "biodiversity."

Studying the hands, I notice nestled in the bottom corner is my own.



I hadn't looked at it closely before. Now the square palm and dark lines I've lived with all these years are unmistakable.

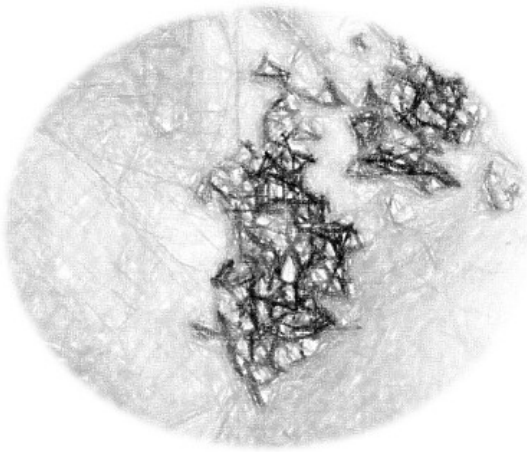
My right hand isolates the image of my left and strips away the polychrome.

Immediately, the seeds lose their discreteness.

Alone against a white page, the palm appears vertical and the seeds seem to defy gravity, clinging as if with linked elbows to grooves and creases.

A few months ago, I attended an event in Manhattan featuring members of the Lenape Center and Hudson Valley Farm Hub[3], who were collaborating on a project for indigenous seed rematriation. As each of us in the audience cradled a seed in our palms, the panelists asked us to meditate on the generations of human and plant life that has made its existence possible, on the abundance of history, faith, work, and knowledge this seed held by each of us contained. I don't know what seed I was given, but I opened myself to channeling its life and history. I see that moment in this image – in the way the seeds have melded into my palm.

[3]You can learn a bit about this collaboration at https://hvfarmhub.org/seed-growing/.



A few drags and clicks and the image is no longer my hand, or not only my hand – something remains recognizable in the descent from the fleshy thenar to the bony palmar, something I know to be *me*.

These are ridges and valleys in "the hills." This is the watershed that channels monsoon streams to this town and village and not to another. This is the riverbed where I have seen women cultivate wet rice and winter crops who thirst the rain does not quench.

These are the webbed roots of *mandua*, stretching where streams do not flow and irrigation tubes do not reach, drawing up what came down for their own survival and that of companion crops, holding a terraced field in place against the forces of rain and gravity.

This is that young man, who accompanied me to a neighboring village where the climate had changed so much that people were growing fruits and potatoes to sell in the market. Unlike his male relatives, swept into the urban current, with its pull of hope and necessity and its undertow of struggle, he had stayed and grown roots as a fieldworker for an NGO focused on rural livelihoods because "this is home." For 5000 rupees (in 2015, roughly $80 USD) a month.

These are bodies, words, images, events, and actions. An assemblage that is the hills coming together in this way, now (DeLanda 2016). A woman farmer pressing her fingers together to animate the fingers of a plant from the living room of a partially constructed house, beside a door that opens onto planted fields, with all the trust and uncertainty of the season. A mother saying "*mandua* makes you strong," followed by her daughter saying, "I don't like the taste." A young man's decision to stay as others who can leave. National policies that draw foreign direct investment to where the railroad stops and disinvests where tracks do not reach. The trail of young women in their daily circuits from field to forest to home, and their moments of rest, television, song, laughter. The wait for remittances and holiday visits from loved ones, followed by trips to Almora to enroll in university, stitch a shalwar, buy a new phone. Fallow fields in abandoned villages. Properties with view for sale to Delhiites who will visit occasionally. Monkeys on roofs in search of food in kitchen gardens. The complex web of "animal intimacies" (Govindrajan, 2018). The possibility of drought or hail.

In the collage, my thumb tucks behind a stalk whose "fist" extends into a blue and cloudy sky. In monochrome, its silhouette resembles a neoclassical statue of a lady holding a torch in New York Harbor, which I am peering at from a distance through the window beside my desk.

And through the window beside my desk from a distance, her green is the shade of oxidation – materializing time and memory. To my parents, professionals who migrated from south India in the 1970s, she has been an emblem of liberty and "American" belonging. *"Give us your tired, your poor, your hungry…"* To a guest speaker from the Oneida Nation Wolf clan who visited one of my classes, her idealism stands on Lenapehoeking and the bedrock of historical and cultural effacement. I ask students if it's possible to work from the contradictions she embodies, if we can learn

from those who have seen her as a question rather than a statement.

Regardless, I am on the map of settler scholarship, doing research in a country my parents flew away from on winds of medical training (Dhillon, 2019). There is no "outside." However, that gives me somewhere to locate myself.

The quotation laying on my desk
reads –

"Frames of use have uses" (Ahmed, 2019, 46).

I remove the box around her.
She stretches.

I never met the farmer who explained the two kinds of *mandua* again, and I never got her full name. I would not recognize her face after these years.

Would I recognize her hands?

OPEN PALM reaches out, holds space, calms dogs, cups seeds, invites, receives, releases. The Sanskrit अनीचा – aneechaa – impermanence in Devanagari script is inked on my left wrist. CLOSED FIST gathers strength, knocks on doors, holds tight, holds fast, protects, grasps, readies for battle. अधिष्ठान – adhitthāna – fierce sitting in Devanagari script is inked on my right. Two tattoos that became a part of me the year after I completed my doctorate. Through my time with Uttarakhand I came to see how both dispositions, together, sculpted the political ecology of the hills and more-than-human survival.

The distinction between opened and closed is apparent in the field, the farmer had reiterated, but that is not the point. After the harvest, the seeds of both, as well as the grains of both, commingle, as crops do in terraced fields.

4 | EXPERIMENT 3: ORPHAN(ED) FEET

In Retrospect: Experiment 3 is "closest" to me because it is about making kin, in the sense of more-than-human extended family forged through "being with" rather than through "being like."

During a visit to India a couple of years before beginning my doctoral project is when I first heard "orphan grains." The term floated about in national and global circles. It denoted finger millet and other food crops in Asia and Africa that, essentially, I would not find in a US supermarket chain. Ten years later, this is not as true.

Ideas get sticky. They seep into the furrows of your imagination and thicken. Neither time nor effort shakes them off or scrubs them out.

"Orphan grains" stuck. I wanted reasons.

Over time, I interviewed various people – activists, farmers, researchers, NGO fieldworkers – who collectively sketched out a partial explanation related to India's post-Independence, post-World War II moment, and I wrote about it (Chandrasekaran, **?**; 2023). It had to do with coloniality's modern architecture, with the US seated on the throne of a New World Order as liberation movements and solidarities alighted throughout Asia, Africa, and the Caribbean (Prashad, 2007). It had to do with the Marshall Plan restoring the agricultural infrastructure of western Europe versus Public Law 480 dumping food aid in "darker nations" (Friedmann, 1982; Escobar, 2012; Prashad, 2007). It had to do with India's lauded Green Revolution, which shook off the scrouge of colonial famine and the prospect of poverty in a global economy that would turn on trade and the dollar and harness photosynthesis for the synthesis of development ideology, market-based agriculture, and short-term promise (Sen, 1981; Kumar, 2019). It had to do with the amalgamation of hybrid technologies, monocropping, pesticides, and irrigation canals in places that could be reached by railroads, roads, and agricultural extension agents. It had to do with, *"If the more-used path is where business is conducted, when you cannot use the more-used path you are removed from business"* (Ahmed, 2019, p. 63). In some ways, it came down to this: stories are infused with power. In the story of a democratic nation birthed at the international transition from colonialism to neocolonialism, certain plants and forms of knowledge did not fit the moral of progress or conform to a plot advanced by expansion, speed, urbanization, consolidation, mobility; therefore, these plants and forms of knowledge had no future and no history. They were rendered "useless" (Said, 1979/2000).

I couldn't get comfortable using "orphan grains." I didn't get comfortable hearing it.

I thought a lot about the difference between "orphan grains" and "orphan*ed* grains," and the work done by two letters, the two letters that often stand for "*ed*ucation." "Orphan" – noun – an identity; "orphaned" – verb – a process. "Orphan grains" connotes destiny or something that cannot be altered. "Orphaned grains" recalls history and scratches at the possibility of change. In environmental justice classes, I have assigned Laura Pulido's (2016) work

on water poisoning in Flint, Michigan, and "the politics of abandonment." When the state withdraws or denies care for people's basic needs, acting against principles of democracy and goodwill, it paves the way for "premature death" (Gilmore, 2007). Abandonment is a hostile act (Pulido 2016). However, as the "more-used path" (Ahmed, 2019, p. 63) within a neoliberal logic, abandonment masquerades as misfortune. People and plants use each other to make place. When people are culturally, symbolically, and materially abandoned by the state, when their needs and their ways of using the world are written out of or destroyed by national policies, they and kin-plants face generational death. The politics of abandonment "orphaned" food grains in India and elsewhere. No doubt, the transition from Euro-colonial domination to global governance opened possibilities and new power relations, but in reinscribing hierarchy within the emerging "family" of nation-states, globalization also fashioned the world into an orphanage (Quijano, 2000).

Belonging means different things. One can define "belonging" by difference, by drawing borders to delineate who or what does not belong *within*. Within this logic, exclusion is necessary, and orphaning and abandonment can become natural. Alternatively, one can define "belonging" by forms of relating and participation, by what is cultivated and practiced *among*; these can extend and include indefinitely. The difference does not divide smoothly into good and bad; multiple "belongings" can coexist. For example, protected commons strategically delineate and cultivate. It has to do with what becomes possible or likely.

Unlike wealth, orphaning does trickle down, forsaking life and forsaking bonds; against this, collectivities and places summon their life force. However, it's complicated. Orphaning in Uttarakhand has enabled certain kinds of freedom for families and individuals; for example, the chance to release oneself from exploitation, bondage, exclusion – such as persistent casteism or entrenched patriarchy that keeps land and power in the hands of men who do not toil in forests, homes, and fields (Gururani, 2000). Yet, orphaning offers no collective remedy. It erodes the mechanisms by which people can attempt changes that address existing needs and inequities systemically and with intimate knowledge of the dangers and the stakes. It makes escape the *only* viable option, meaning that those who cannot escape are trapped.

Orphaning is useful for what David Harvey (2007) calls "creative destruction."

"Orphaned grains" render land and life "unused, and thus available to be appropriated" (Ahmed, 2019, p. 46-47). Once "orphaned," land and life can be adopted ("saved") when the wheel of value spins to make saleable what had been destroyed. We see this in how the extractive ideology that orphaned certain grains produced the very problems that now require their "climate resilient qualities," such as drought resistance and low glycemic indexes, in order to save the human family. And so it goes.

At the same time, "orphaning" signals how families can form through shared hardships, mutual understanding, and allied survival.

Orphaned grains become kin to each other, as have rural communities orphaned by globalization. In mixed fields, farmers plant companion crops that don't compete to the death for resources, but rather enhance each other's ability to stay and to belong. Throughout South Asia and beyond, farmers growing orphaned crops have nurtured familial networks to share seeds and build power across lines of differentiation.[4]

I wonder why "orphan grains" clings to me, why I still feel the pull of its gummy tendrils. I scroll up to the "puzzle" from the first experiment and read the photos as I would ethnographic jottings, making an effort to balance inquisitiveness and receptivity.

I notice various images depict hands and feet cut off the rest of the body.

It's unclear in the frames to whom they belong, whose impulses, tendencies, desires, or repulsions animate their use. It is like they have been orphaned.

[4] For example, the Millet Network of India, the Alliance for Food Sovereignty in Africa, and the Native American Food Sovereignty Alliance.

There is my hand cradling *mandua* seeds. Perched above it, my feet cushioned by *mandua* seeds.

My “orphaned” appendages recall a book I read years ago, written by a neuroscientist who went to medical school with my parents in what was then called “Madras.” People missing a limb often experienced a “phantom” in its stead; their brains developed neuroplastic use circuits and enlivened latent capacities (Ramachandran, 1999). With trauma and loss came feats of cellular creativity.

I am drawn less to the juxtaposition of my hand and my feet, the my-ness positioned centrally among the pictures, than how (my) feet abut another’s. Both pairs are photographed in motion and without the knees, thighs, and hips that would connect them to a torso. They look somewhat similar in color, shape, and posture.

If their images are “conveying” anything to me, it’s that they don’t want the separation.

I layer them, this way and that.

I stop when the toes are facing and almost touch

.

It’s an illusion. We never stood so close.

Even so, the allusion to closeness transplants me.

We are kneading *mandua*. The beads are soft, warm, moist beneath our feet; that warmth, that moistness had done the work of ripening the grain kernels after the second harvest.

I had woken that morning unable to breathe – or in fact, feeling like I couldn’t. I assured myself that I was breathing because I was still able to think and move and feel, but the sensation that I couldn’t was real, it had me by the throat, and I couldn’t shake it. It had started, gradually, a few days earlier. I knew it had something to do with disaster, feeling buried under something you can’t claw your way out of, even under open skies and among glacial peaks. A few months earlier, in Brooklyn, while making breakfast, I learned that the region where I would be returning for research had made international news. June 16, 2013. A “cloud burst” after a wave of torrential monsoon rains. It was an acknowledged catastrophe. As I read and heard, people died, so many thousands. Throngs of pilgrims and tourists were stranded at sacred sites where rivers originate and make life possible in the diamond shaped land mass of a country downstream; soldiers were airlifting civilians on rescue missions called Surya Hope. “A lake fell from the sky,” one man later told me, looking up, remembering, in disbelief. When I returned, it was to a place riven with landslides and mudslides. Farmers showed me hollows where fields sown with the sweat and promise had been swept into rivers, where cows, buffalo, goats, and sheep purchased with savings and credit and dutifully cared for, were swallowed away and drowned. People lost children, mothers, siblings, elders, cousins, friends, life savings, homes. Sudden and violent devastation betrayed the protracted disaster that had become a norm of life over decades – unpredictable rainfall, sudden hailstorms, fallen roads, drowned villages – propelled by a modern brew of climate change, tourism, hydroelectric dam construction, and deforestation. The consequence of living in a place everyone

wants something from, yet with little concern for existing bonds or reciprocity. Protracted disaster mapped onto "the politics of abandonment" (Pulido, 2016) – the lack of money against the hardship of rural livelihood, the sparse investment in social life against the funds poured into extracting resources, the reality that many of the fields that hadn't been swept away had not been planted and many of the homes that hadn't been destroyed were boarded up with faded paint. A landscape of orphaning. A landscape that had to do with U.S. agricultural dominance and carbon consumption, with my government and my patterns of use. All this had something to do with why I had woken up feeling like I couldn't breathe. A few days earlier, I had been caught in a rainstorm. The flip phone I would use to call my cousin in Delhi from the spot by the road with reception got ruined. I was staying in a room of largely empty building used seasonally to house fieldworkers who lived for months-long stretches away from their families, which was constructed on the inherited property of a man who launched a nonprofit that led women's self-help groups and agricultural programs, supported by grants from multinational NGOs. As the only woman in the building, and being unmarried, I was advised to lock the doors and windows of my room at night, stifling the air. I would lay awake. Buses and jeeps left for Rishikesh, the closest city, before 9 a.m. and for six hours winded on serpentine roads that made most female passengers stick their heads out of windows to retch. English, the idiom of global power, my first language and arena of fluency, didn't help me explain or understand; and in Hindi I couldn't begin to find the right words. In the stagnant darkness, the prospect of returning home didn't bring comfort. Many friends in university were sinking in debt and, now in the dissertation stage at a public university, most were facing the prospect of moving from place to place for work into the indefinite future, getting by on adjunct gigs, landing a job that involved inflicting this fate onto others, or leaving academia. Feeling I would suffocate, I got dressed, packed my things, and waited for a glimmer of dawn. Walking out of the building. I figured I would take the morning bus. I crossed a field to the family's house and saw a light was on in the back like a beacon. I moved towards it. I found seventeen-year-old Pooja giving a buffalo some feed. She looked at my face. It was as if she could read the panic.

"Come with me," she said.

That is how, one the late afternoon, on the roof above the room where I slept, we were together, kneading *mandua* with our feet.

The splintered stalks pricked, but not enough to draw blood.

The mound softened with work and time.

As our feet tugged the grains from spikelets and peduncles, the amber beads began to blend as a mass, falling into each other and off the stems that had bound them to a chain of nourishment and photosynthesis, so eventually we couldn't tell which grain had come from which plant. The sheathes and leaf blades were still upright in the fields, soon to be cut and dried to feed the same buffalo Pooja had been tending to that morning in the shed.

Looking at "orphaned" feet, it seems like mine could be Pooja's or Pooja's could be mine. Or that they could be mixed and matched like a pair of socks, attached to the same body. They don't appear so different. So I try.

In a glance, this pair might seem "natural," like they belong to one body, enable one person to walk and stand. Look closer, and one set of toes protrudes more than the other; one arch appears higher; the angles do not quite align.

Letting my eyes rest on the doctored photograph feels creepy. Disembodied feet in motion. Imagining the anatomical lines moving up through shins, knees, thighs, I feel my hips contort. These "orphaned" feet aren't interchangeable. All I can say is that the life paths each has tread has led to a shared place and time, an encounter, for reasons neither designed nor arbitrary. Within a web of globalization, they have formed in some kind of relation to each other.

"Use is how things come to share a location" (Ahmed, 2019, p. 27).

We knead the pile for hours. Pooja sings popular Hindi songs. We take goofy pictures and laugh.

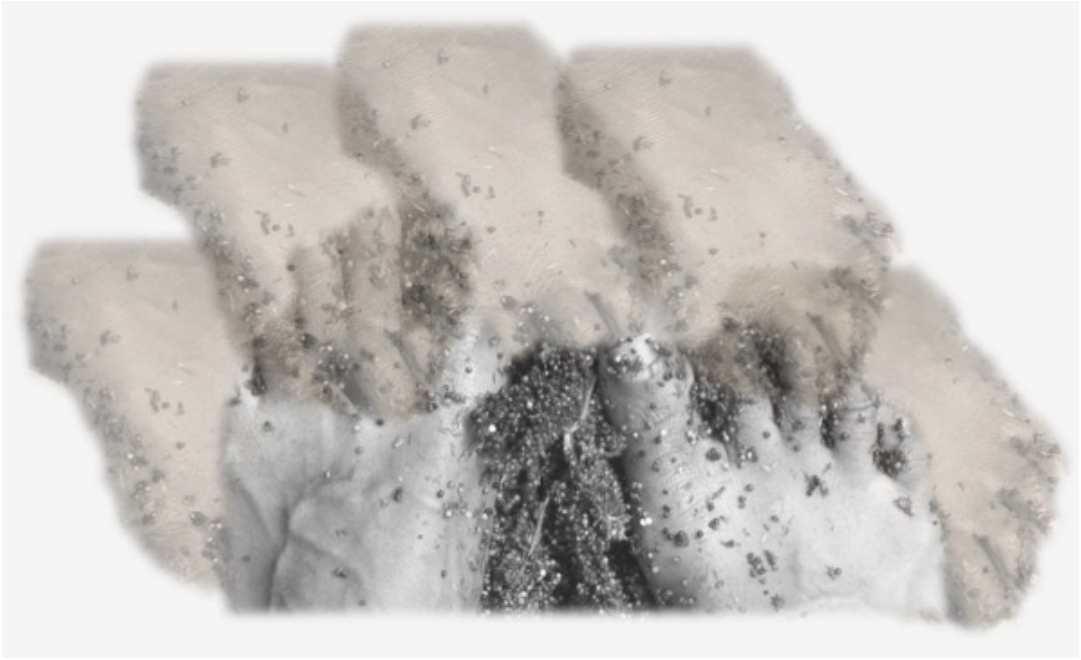
Then she tells me that she is an orphan.

Her birth parents died. Her adoptive parents wanted a girl. I do not know the circumstances, and my travels have taught me that adoptions happen for reasons ranging from love and care to child servitude.

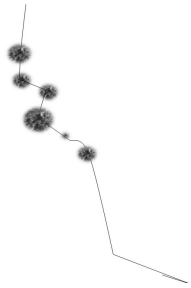
When she smiles, I don't dissect its meaning.

"I can't wait for my brother's wedding." She describes all the foods to be served and the new churidar suit she will wear.

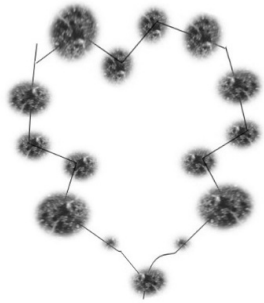
I take in what she has said, let it travel through me, and knead it into the *mandua*. It's the sensation of my feet sinking and sinking in mud. This doesn't feel like a mudslide or make breathing hard. It feels good.



As Pooja describes, when the cloud burst in June, fieldworkers from different parts of the hills had been staying in the building where I slept. They rushed to nearby villages that had been harmed, those not on pilgrim routes; they knew where to go and how to get there; they went by car, and they went by foot; they dug out people and animals; they carried what supplies they could gather; they brought home-cooked meals that Pooja, her mother, and other women had cooked.



Villages in the hills exhibit an everyday self-sufficiency, fostered by microclimates, remoteness, forest biodiversity, agrarian practices, women's feet, and the difficulty of long-distance travel. They are connected by pockmarked roads that fall away in the rains, and those connections run deep. How many times had I witnessed passengers get off a bus to fill it a hole, so a journey could continue? It's a way people deal with the everyday wear of orphaning. I do not doubt it's what fieldworkers did, time and again, on their way to



offer mutual aid.

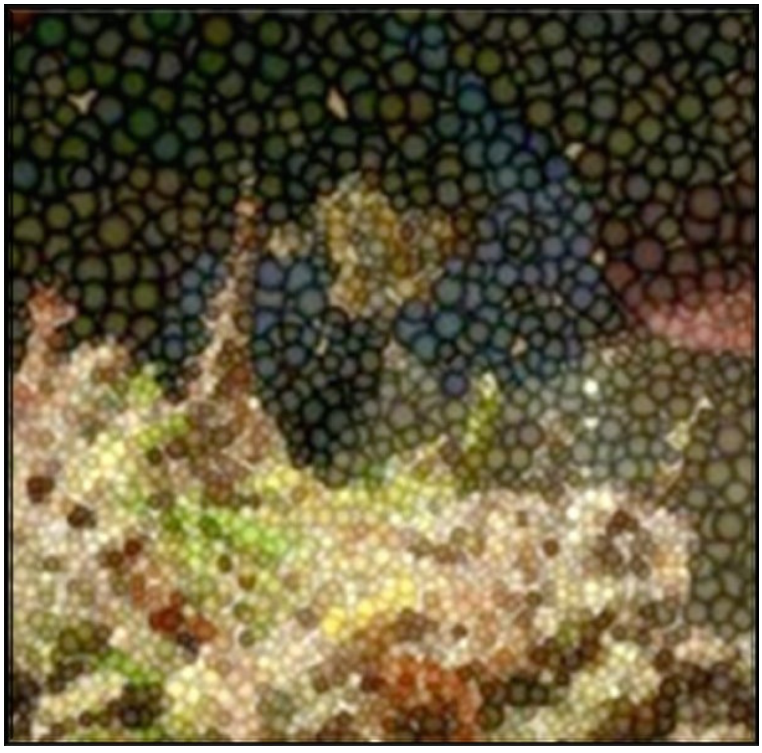
"You'll see," Pooja says, "When we're done, our feet will feel like a baby's. This is better than a spa!"

She was right. For days afterwards, my feet were softer and cleaner than I can remember. They'd been embraced and reborn.

5 | EXPERIMENT 4: GRAIN VARIATIONS

In Retrospect: "To essay" means to attempt. "An essay" can signify the messy outcome of attempting something with uncertainty. In Experiment 4, I follow rhizomatic and multi-directional paths of "plant thinking" (Marder, 2015). As I do so, motifs move through "grain variations" [grainy →granite →ingrained →fieldwork on food grains →granular →folds and grain →ideas of food grains →granaries →food grains as sites of hope →fine-grained analysis →mandua grains →grains an embodiment of unalienated labor →granule →coarse grains →as grains move from hand to hand]. Meanwhile, I traverse the knots and tunnels of my positionality and positions as an anthropologist and academic worker studying grains, and the possibilities for understanding and changing the world that (more-than-)plants open.

"The more a path is used, the more a path is used" (Ahmed 2019, p. 41). If these experiments are paths of thought, they haven't marked a series of destinations. It feels more like each has immersed me in a world of reflection and activity and attuned me newly to pictures I had taken and looked at many times before. In each "world," something has opened, something that calls for response but that lacks resolution. Perhaps this is why the photos seem to lose clarity by the end. Responding to this observation, my impulse is to begin this time with a **grainy** image.



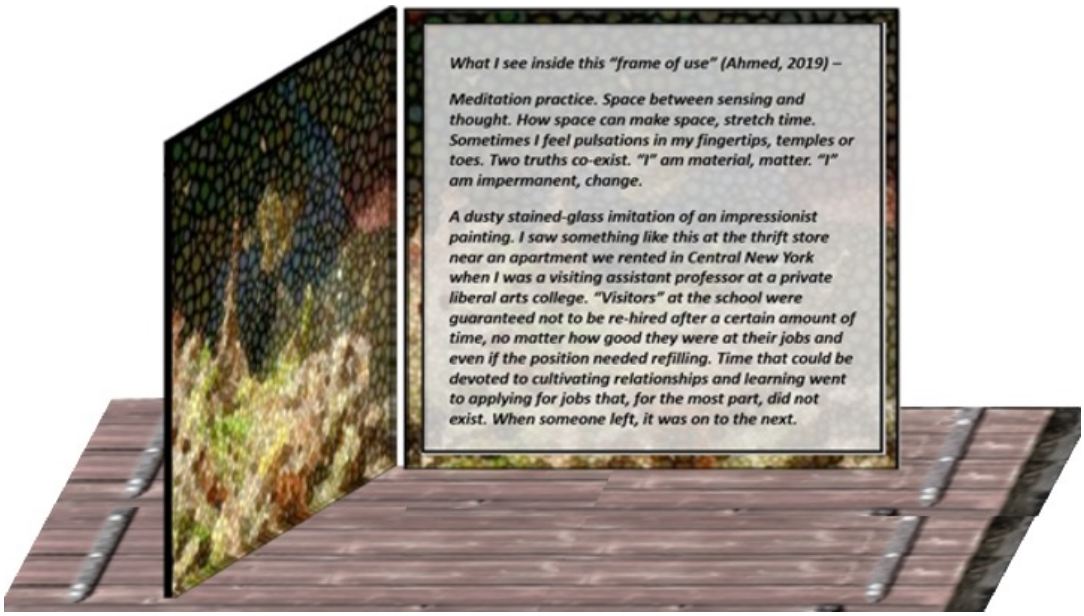
There is some relief in a grainy start, in the realization that what's being portrayed isn't identifiable. Shaking up the hues and demarcations helps to shake off a layer of ethical discomfort and disconnect that I often feel using photographs of everyday life in anthropological scholarship, even the same ones that hold comfort and closeness when shared with people who intimately tend to the lives and places depicted.

Anti-colonial and abolitionist refusals to participate in the aims and methods of conventional research tell me that this relates, in part, to audience. When my work circulates as "scholarship," I become the conduit for knowledge to depart one circuit of use, guided by relationships I have cultivated and am beholden to, and enter another that is governed by a different set of ethics and norms, one that is generally structured – or constrained – by the tenets of individual performance and professional scarcity. In movement research and participatory action research (PAR), circuits of knowledge overlap, sometimes fully. These important interventions have broadened the meaning and purpose of what's professionally legitimized.

Nonetheless, U.S. academia has not revolutionized. Academic institutions and organizations have sought instead to appropriate radical efforts into stubbornly hierarchical norms and a marketplace that churns on the anxiety for job security, living wages, publications, recognition, validation, status, and/or professional advancement. These working conditions have largely remained unacknowledged within and separate from discussions of fieldwork ethics. There are benefits to maintaining this distinction; not doing so can lead to one to downplay the responsibilities and privileges that come with mobility, being a US citizen, or being connected to institutions and people with financial portfolios and global reach. However, I wonder if this silence feeds an intoxicating lie – that "scholars" have less in common with workers than the capitalist class; that they can grasp social power because of their discipline and merit.

Shortly before her death, social activist and philosopher Grace Lee Boggs delivered a message to Occupy Wall Street: "You have to do a lot of thinking. You have to look at how you yourselves have become part of this

culture. You would have to look at how many of you would be happy if you become part of… the corporations, if they would give you jobs" (Boggsfilm, 2011). I have turned those words over many times. They have integrity. They conjure a granite talisman whose weight and colors lay bare the combination of pressure, heat, and time that went into its formation. When I first encountered them over a decade ago, I sensed Boggs was not only cautioning the me who spent late nights brainstorming next steps as a graduate student organizer but also the me who woke up early to get to class or teach as a doctoral candidate. It had to do with humility. It had to do with how the desire for what one says one doesn't want can become **ingrained** and unacknowledged deep in one's psyche.



Anthropology's famous credo "to make the strange familiar and the familiar strange" made more sense to me before I started **fieldwork on food grains**. Before long I realized that photos of rural "Third World" women didn't fit the binary. They were at once too strange and too familiar. They have been used as wallpaper to fashion a contrasting backdrop to "modern life" or as illustrations of backwardness accompanying fairytales of progress. Today, they scroll across corporate webpages promoting the "second green revolution" for "poor farmers" in Asia and Africa, as if poverty were a condition one could overcome with the right fix, as if it were just a matter of joining up with modernity rather than evidence of a historical relationship that has enriched some through why and how it came to be (Escobar, 2012). Depictions of brown women working the land or hugging trees have often not taken on or taken seriously the claims to use, land, and livelihood people are fighting for. Instead, they have reinforced ways of seeing "nature" as pristine and "others" as needy or primitive – as with the Chipko Movement in what is now Uttarakhand (Rangan, 2001). Sylvia Wynter (1994, 2003) has argued that colonial representations superimposed onto the realities of human(ness) lay the ideological groundwork for violence, both heinous and banal. And academia, with its silos of expertise, has done a great deal to inscribe, rather than undo, these flattened impersonations (Wynter, 1994, 2003).

My mind is lingering on high-definition images and what they accomplish in the era of asset and risk management. How good they are at capturing granular details within the frame while angling the shot to distract from deeper truths – in the business of education as in the business of food and agriculture. Colleges and universities advertise

competitive advantage and elite experiences in catalogues replete with smiling faces, positive consumer reports, and cherry-picked statistics. Shiny pages display the just-right quotient of "diversity" to color capital investments, both with ultra-sharp lines and in colors that pop. The smooth perfection suggests gliding through the world, as on a flat, slippery surface, as well as fashioning it, making it as you desire and design. "Knowledge" for sale to collect, consume, display with a hefty price tag beneath the brand label. Meanwhile, like villages in Uttarakhand, the humanities have been gutted by austerity and abandonment, sweeping teachers who have grown roots in communities and who have cultivated them, into the torrents of out-migration in search of a livelihood that can sustain them.

Global South farmers and North American academic workers aren't equivalent, and to read their overlap as such is to representationally flatten. Nonetheless, shiny images speak of methods and ideologies that traverse both fields and shape their relationship with each other, and the points of contact are not immaterial.

"The more a path is used, the more a path is used" (Ahmed, 2019, p. 41).

"The more people travel on a path, the flatter and smoother the surface becomes" (Ahmed, 2019, p. 41).

The flatter and smoother a surface becomes, the more it can function like a tunnel.

It can function like a tunnel even under open skies.

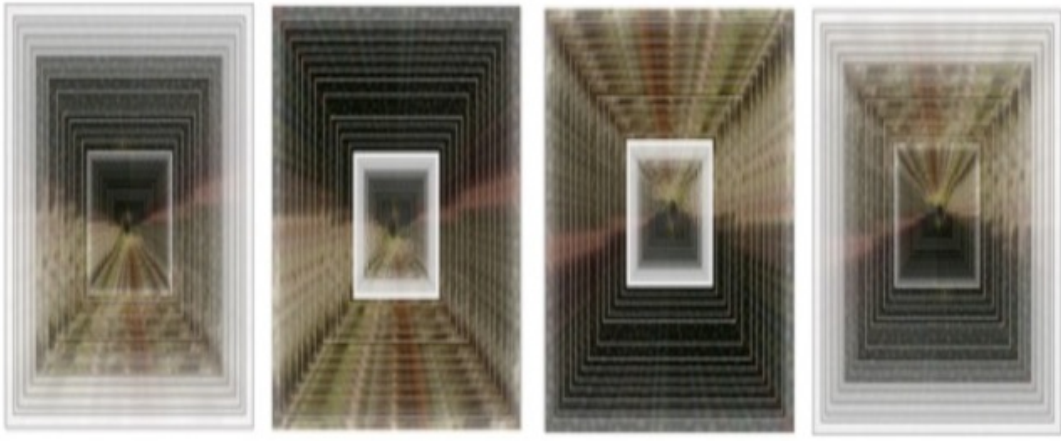
The more it functions like a tunnel, the less people look up or around, notice who or what is beside or behind them or who or what they are following.

Flatter and smoother isn't necessarily accessible.

Flat and smooth can be used for speeding up and for herding.

When paths are used for speeding up and for herding, limpers and askers become impediments.

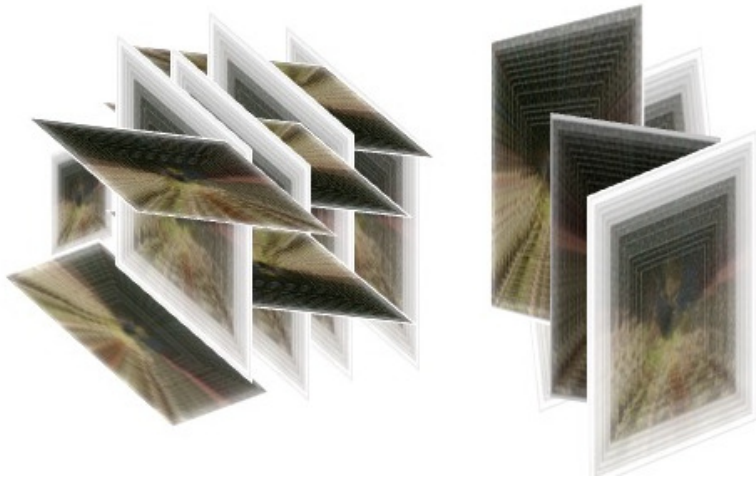
Impediments are for skirting around and shoving out of the way.



Tunnels can lead to tunnels and to tunnel vision.

Like tunnel tracks to tenure for tenure's sake, where light is not the end of the tunnel, but crevices designed to hold a few bodies.

Tunnels train minds and bodies to keep moving "ahead," to not shuffle along or shuffle things up.



But there's a widespread need for shuffling –

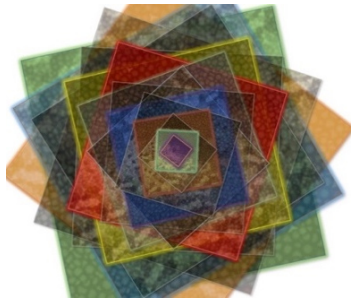
for dragging feet, slowing down, rearranging, tapping heels, shifting postures, halting the movement of business as usual, troubling unidirectionality flows,

choreographing life and work to rhythms that working bodies can live with.

The problems of the world are urgent; however, they are not flat or smooth or straight. They are bumpy and knotted. They bind us together, into the problems and the solutions.

During my childhood summers in India, women elders, perhaps sensing that I needed something to do, would ask me to re-string the waists of their petticoats. This happened when a knot had gotten stuck inside the narrow opening. These knots were often thick to prevent the very problem of slippage. Even when the knot was stuck somewhere near the opening, I'd have to tug the loose end dangling out the other side and pull the whole string out. The next step was usually to undo a double knot. With practice I learned to follow its **folds and grain**, to tighten what I wanted to loosen in order to feel where was tight and where had give. The process could be quick or take long. Regardless, in the spot where the knot had lived the string remained disheveled, with the creases stuck in poses they had held firmly for so long. Finally, I would use a safety pin, attaching it to one of the string's fraying edges and inching it along inside the seam until that satisfying moment when its silver head appeared out the other side. Unknotting and stringing taught me the intelligence of my hands, that they had ways to understand how things worked and were not just instruments of my conscious mind.

When my aunts or grandmother wore sarees tucked into the petticoats I had fixed, I felt pride that my work had transformed something out of use into something practical and contributed in visible and unseen ways to the vibrancy and aesthetic of togetherness.



In hindsight, the decision to pursue doctoral fieldwork in India was probably about tracing the mobility that has shaped my life. From when I was a few months old, movement across the globe between my birthplace and that of my parents was possible and cyclic, and equated to existing. Experiences like mine were explained or reflected back to me in stories, conversations, and media through the kaleidoscope of "cultural difference." As I became an adult, I began to understand it was as much about continuities – unspoken relationships to class, caste, and nationality – and that even the way I saw rurality in India came out of that.

I was pulled towards grains because grains pull in questions of social justice. Raymond Williams (1980) wrote that "ideas of nature" contain so much of human history. This applies as much to **ideas of food grains.**

In graduate school, I read about their centrality over the past half-millennium to empire- and state-making, "resolving" capitalist and colonial crises, and squashing movements for agrarian reform, indigenous sovereignty, and communal land rights throughout the world. How settlers fashioned "America" by flattening the multiplicity of maize to "corn" and (mis)using, debasing, destroying, and extracting indigenous knowledge, tended lands, and life ways (Warman, 2003). How traders exploited its caloric content and environmental tolerance to expand and systematize transatlantic enslavement, kidnapping, forced labor camps, family separation, and terror. How, in South Asia, colonial policies and rule starved tens of millions of people and animals to death (Sen, 1981). How this barbarity came out of the British empire's era of laissez faire economics, which provided the rationale for siphoning wealth to the metropole by exporting and extracting indigo, tea, and coffee; taxing land and agrarian labor; cutting swathes of forests that sustained communities; among a multitude of other things (Davis, 2017; McMichael, 2009; Rangan, 2001).

In the years following Indian Independence, masses of people were hungry. Some of my older relatives, of the professional landed class, had to stand on ration lines for food staples like rice. In newly liberated countries, the US found a market to unload its surplus from granaries in the name of aid; even as it invested in rebuilding the agricultural infrastructure of western Europe (Friedmann, 1982). I came to understand why these relatives and their children consider Green Revolution monocropping and capitalist agriculture as the only possible solution at that time and the only way forward for India, and even worth the toll we see evidence of today – of drought, malnutrition, disappeared plant diversity, disappeared skills, disappeared villages, and depleted soil (Kumar, 2019; John and Babu, 2021; Chandrasekaran, 2023).

Over time, I very clearly saw **food grains as sites of hope** – not in liberal sense of happily ever after, technological fixes, or reassurances that one's small circle and one's property will be okay. I mean a practical "hope" based in collective place-making and the messy and bonding process of prefigurative politics (Dixon, 2014; Dyson & Jeffrey, 2018). Food crops, more broadly, are located at the center of radical movements for the right to live, the right to cul-

tural heritage, and the "right to produce food in our [collective] territory" (Via Campesina,). Their social importance binds together indigenous and peasant visions for political sovereignty, the health of the land, the health of children, the reproductive capacities of so many living beings, the cellular composition of humans and other life.… In Uttarakhand, activists link the fight to preserve ancestral food crops and women-led mixed-crop cultivation to generations of environmental justice activism against forest dispossession, hydro-power dam projects, and rural disinvestment (Gadgil and Guha, 1995; Jardhari et al., 2012). Food grains invite learning that isn't "only [to] interpret the world" but also "to change it" (Marx, 1845).

More recently, new teaching material combined with readings suggested by an anonymous reviewer raised questions for me about how (mis)representations of plants are historically and ideologically entangled in the construction of academic tunnels (and tunnel vision), and how much this rested on visions of human exceptionalism. Did this mean that "plant thinking" (Marder 2013), human-plant attunement, and dynamic understanding of plants – in indigenous praxis, farmer fields, and the scientific field of biology – had a place in making and imagining academic "worlds otherwise" (McNally, 2006; King et al., 2020)?

For example, plants were relegated to the bottom of Aristotle's Scala natura, which placed humans near the top of a ladder beneath Gods (as in ancient Greece); evolutionary trees later incorporated this metaphor of hierarchy, as well as classifications long challenged by kincentric frameworks and more recently impeached by cladistic taxonomists (Hejnol, 2017). The polarization of the Kingdom Plantae and Homo Sapiens mutually reinforced each other's position and the ranking of life according to particular values and attributes, fashioning a template that could naturalize Social Darwinism and biological racism.

Michael Marder (2011, p. 84) had traced connotational shifts away from the Middle Latin "vegetabilis," meaning "to grow," "to animate," or "to enliven" towards sedentary associations over the past three centuries, epitomized by the passive connotation of "to vegetate." In post-Enlightenment metaphysics, plants became associated with inertia, unconsciousness, a liminal existence between the animate and the living, and lacking "any sort of inwardness" (Marder, 2011, p. 87). The contrast served to hold up human intelligence, associated with the heavens, even as Science supplanted divine authority; "consciousness" embedded notions of individual advancement, the power to uproot

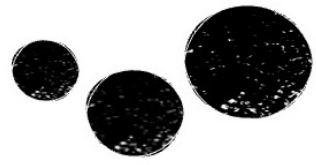
oneself and others, and accruing wealth or status through intention, choice, and design (Marder, 2015). In that image, elite men from the European metropoles were the human ideal, the human norm, the fully human (Wynter 2003). Knowledge that did not reflect the same values, such as tending to plants in ways that minimized concentrated or high-impact human use patterns, became "wilderness," "waste," uncivilized, ignorant, and subject to seizure or eradication (Anderson, 2013; Federici, 2004; Whyte, 2018).

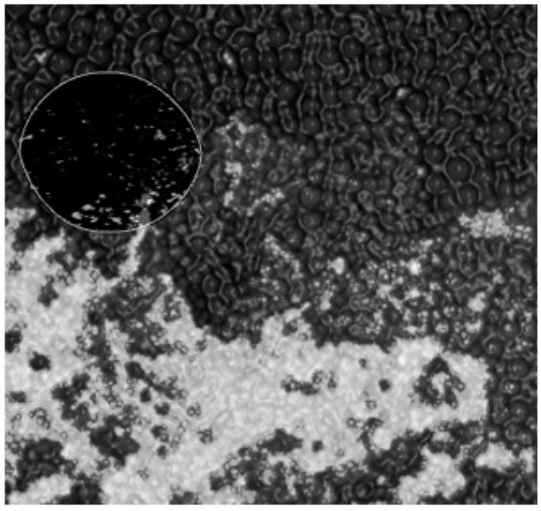
Is it any wonder then that the modern university system, established alongside these ideas and housing them in newly separated halls of philosophy and science, would institutionalize a system of valuing knowledge based on scale, competition, upward mobility, visible effects, and compartmentalization? That a system entangled with justifying, systemizing, and expanding imperial projects would inhere these epistemological investments and notions of humanness in its institutional structures and traditions?

Many models we can look to for education grounded in open epistemological practices, reciprocal social relations, justice, and consciousness raising also sow seeds and kin-based understandings of plant life. I'm thinking, for example, of the gender-oriented pedagogy of Brazil's Movimento dos Trabalhadores Rurais Sem Terra (MST) and the ecoversity Unitierra Oaxaca in Mexico (Schwendler & Thompson, 2016; Figueroa-Helland et al., 2018). These center the quality and mutuality of human-plant relations in their organizational structures and practices. I'm also thinking about movement building scholarship, such as adrienne maree brown's (2017) emergent theory, which applies multi-species principles to political education and praxis.

I don't doubt that studying anthropology, in tandem with critical geography, has made me more aware of myself as a creature in/of the world, who is situated, animate, and entangled with others, and whose actions resonate within/for (more-than-human) society. This is true despite the discipline's birth out of colonial imperatives and ideology, and its role "flattening" the world (Asad, 1973; Trouillot, 1991). The wicked problems of military complicity and representational harm don't just live in the past. I am tangled up in them (Sinha, 2021). However, I'm learning the contours of the knot. I can feel how it's intertwined with global capitalism, private property, climate change, and the nation state. How it strings together life worlds in the academic industrial complex and life worlds in "the field" and in my neighborhood. There are ideas and methods here close at hand that I can use for disruption and reflection. There are social theories such as racial capitalism (Robinson, 1983; Gilmore, 2007; Melamed, 2015). There are models of **fine-grained analysis** that tug me towards nuance, texture, historical contradictions, and some peace with uncertainty. There's the knowledge that others I can't see are bound up with me. There are things to be done here. There are "spaces of hope" (Harvey, 2000).
This is what I try to pass on to students.

Liberatory moments in the classroom, in conversations, reading, writing are energizing and convince me there are practices and relations here worth claiming and fighting for. Sometimes, these feel disparate in the space-time of academia – like bubbles floating along the water's surface whose buoyancy just escapes the deeper current.





Ruth Wilson Gilmore (2018) said: "What the world will become already exists in fragments and pieces, experiments and possibilities." Disparate bubbles in the space-time of academia float in relation to each other and the greater whole. What they are forming together can't be captured in high-resolution and isn't for sale. It's amorphous, dynamic, changes shape and size – a living being. Scholarship to "change the world" and academia can be about feeding it, growing it, keeping it alive, making it felt or visible to oneself or others, discerning its movements, connecting with it, understanding its needs, giving it momentum or purpose, creating spaces in the world or within oneself for its nebulous existence[5] (Higgins & Lenette, 2024; Hayes & Kaba, 2023).

The grainy image was an **image of grains**. It was a window into something.
In the final instance, it was not a thought experiment but a living one.

[5] Some collective work that comes to mind here includes Critical Resistance, NYC Stands with Standing Rock Collective, the Solidarity Research Center, Contingent World, People's University, and Abolitionist University Studies.

It is the end of the monsoon season in 2013. Renuka Didi is gathering ear heads of *mandua* on a tarp on the roof of a building used as the meeting space and residence for fieldworkers who hail from different parts of Uttarakhand for a regional NGO that focuses on rural livelihoods. The building stands on property her husband inherited as the son of a landed caste Hindu family, along with agricultural plots located in different parts of the mountainside. The area that has escaped the worst of recent calamities, the June floods that devastated villages north and east, and the drowning of forest, homes, and fields with the construction of the Tehri Dam to the south. This is the second harvest, which Renuka Didi, her mother, and I completed earlier that afternoon. We wore woven baskets on our backs and tossed the snipped parts of the plants over our shoulders as we moved, leaving the rest of the stalks to dry and be harvested later for cow, goat, and buffalo feed. In other parts of Uttarakhand, I observed other methods. The green kernels that have not yet ripened cling to the stems, while the ripened ones of sunset hues have begun tricking onto the tarp. Renuka Didi will cover the pile with a damp cloth. Over the next few days the heat and humidity will assist the work of ripening. It's a quiet day. Her husband left on the morning bus for Rishikesh and will return by collective jeep or bus in the evening or next morning. The dizzying four-hour journey each way is something he shrugs about when asked; it's become a norm of life as he pursues funding, resources, trainings, collaborators, and field staff for what has become his life's passion. Renuka Didi is bound here to daily tasks of farming. She tells me that when funders, workers, or volunteers from other parts of India or abroad visit, she feels proud to share the traditional foods what she has grown and cooked.

At a time when farming throughout Uttarakhand and India had become, for many, a losing endeavor, I had met women who expressed drudgery over excitement, disillusionment over pride. Renuka Didi's economic security and social position within patrilineal and caste relations, her husband's public advocacy for women's wellbeing, her ability to collaborate with close female relatives who did not exert structural power over her, the fact that people from other parts of "modern India" and world pass through and witness and appreciate her work, her fulfillment of traditional notions of pahari femininity, which value physical strength and endurance, it all came together to make the **grains an embodiment of unalienated labor** and knowledge of one's place in the world.

Mandua grains are hardly larger than the tip of a ballpoint pen. I admire the care Renuka Didi takes to avoid losing even a single **granule**. It's ironic, a few people have remarked to me, that *mandua* is referred to as "**coarse grains**" because they did not grind as finely as wheat for leavened breads and were associated with lack of European refinement.

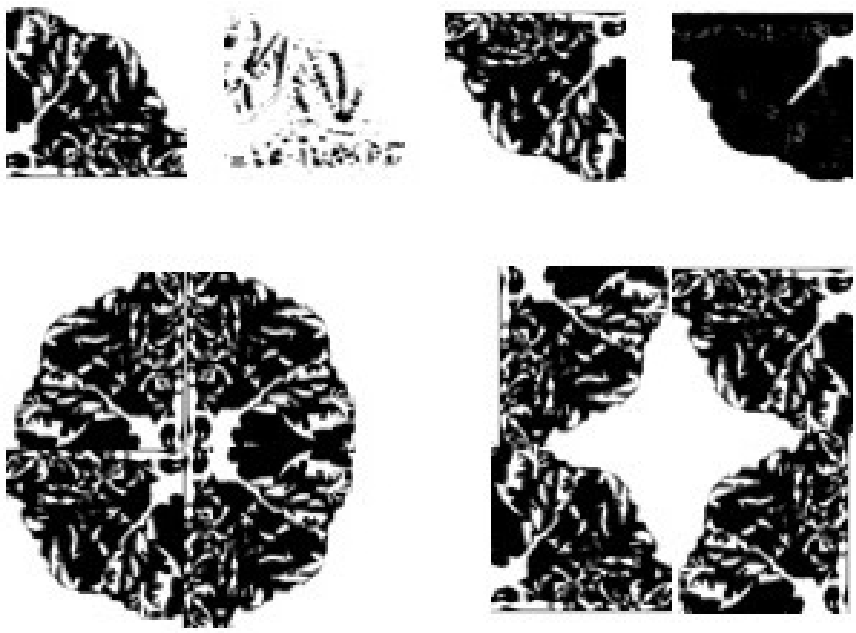
The ear heads of the crops are now physically severed from the stems and roots that had materialized them, as well as from the soil and land where the crops made place. Soon, the grains would be physically severed from those ear heads and become a collective mass, no longer associated with a particular plant or field. Once in storage tins, they could be moved here and there without disclosing the hands that tended to their survival and becoming. *Ẽach plant in its singularity is a collective being… and, hence, a community of plants that do not comprise a unified whole, do not constitute either an individual or an organism" (Marder, 2012, p. 29).*

Renuka Didi will separate some granules from healthy plants to be seeds. If a neighbor or a stranger asks, she will pour some into a bag, knot the top, and extend her hand, expecting nothing in return but that person's commitment to give seeds sometime to another who requests it. Countries and corporations are turning seeds into "intellectual property" for sale, catalogued with patents, and caste-based patrilineal borders remain resilient despite the hardships they cause women. Nonetheless, a long-held ethic of seed reciprocity moves across social and geographic lines (Jardhari et al., 2012). Some people told me it is because certain crops were worth so little monetarily and so few people were planting them that one could basically give them away. However, a "reparative reading" (Sedgwick, 2003) also tells us something different: that this ethic has enabled the plants to survive under and through conditions of eco-

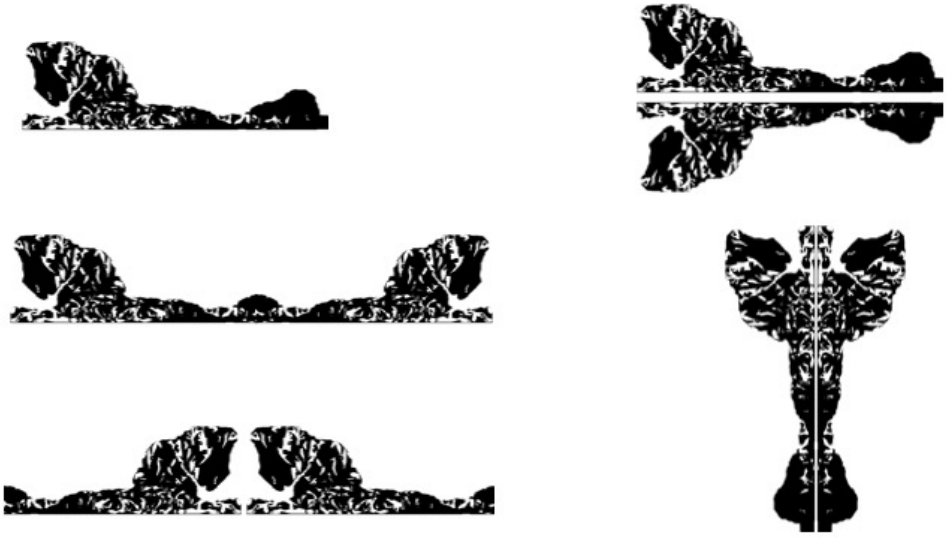
nomic and ecological assault. That **as grains move from hand to hand**, so do "fragments and pieces, experiments and possibilities" (Gilmore, 2018) of alternative, life giving, social relations. That when entities and practices are deemed "useless" within capitalism, they remain or become pathways to other forms of value, which matter. That we can learn from how nourishment and food grains take root in terrain that is resistant to flattening.

6 | EXPERIMENT 5: MONOCHROME STAMP

a) block print



b) mountain feline



c) *mandua* feline

7 | EXPERIMENT 6: SEED-GRAIN CANISTERS

In Retrospect: In Experiment 6, Bhavan's wheel, like his mother's seed/grain canisters, point to understanding "entities" beyond a fixed essence or identity and through their responsiveness to life around them and their modes of relating or interacting.

Where does your family keep seeds? I ask Chauma, eighteen. Her younger brother Bhavan pushes a wheel that he made from wire he found on the village road, at the spot where people and bags cram into jeeps so tight it's all limbs and sacks and heads. Bhavan's wheel turns on a hook at the end of another wire that Bhavan pinched between his fingers and reminds me of a unicycle. His invention will occupy him for hours. But for now, he throws it to the ground and excitedly guides me to a small room that houses four weathered tins, once purchased full of kerosine. Refashioned as seed containers, they are perched on a wood shelf beneath the roof. Two are empty. One holds a small bag of *mandua* seeds their mother left over from the recent planting. They might be sown in next year's cycle or given away. Alternatively, if food is tight or this year's harvest reaps abundance, the seeds might be poured in with the remaining *mandua* grain stored in the kitchen canister, and carried in a sack on Bhavan's shoulder up the village path to the mill to be ground into sand-colored flour, which, from time to time, their mother or Chauma would mix with wheat trucked in from Punjab and purchased at the government store until the shade and texture was just right to make rotees the way they liked to eat them. Seed-grain canisters contain varied possibilities for life. Depending on people's needs, they hold the potential for different uses, which has enabled people to survive the flows of out-migration, torrential rains and the droughts, animals in the fields, and corporate efforts to control human destinies by technologically, ideologically, and legally severing seed from grain. This is like straightening Bhavan's wheel so it cannot be bent into any other shape, or making people believe that it cannot bend, because sometimes belief is enough. The next morning, Chauma will detach the wire Bhavan uses to drive the wheel and use it to draw out the end of a string that was swallowed into the waist of her shalwar so that she can wear them. In a couple of weeks, I will see it repurposed to attach two parts of a broken spade. The wheel will surprise me when it re-appears, spinning in the courtyard, on another piece of wire Bhavan has scouted and claimed. The ability to use things in different ways is an important kind of agency, which I want to explore and expand in my own life and work. I don't want to forget this. I must keep it on a shelf that I can reach.

8 | CONCRETE

a. [*a coalition of particles*] It has been important to have a creative space that allows segregated aspects of my work and existence in academia to interact and to use forms of "plant thinking" (Marder, 2013) I witnessed during fieldwork in Uttarakhand, India as a guide on how to do that (Ahmed, 2019; Vijay Jardhari et al., 2012; *mandua* + Pooja + Heera + Renuka + Chauma + Bhavan + all that cannot be cited, 2013-2014).

b. [*belonging to immediate experience*] These experiments have not led to a conclusion. But I can say this: I don't look at these fieldwork photos or the possibilities for writing in the same way now. And this feels like a place to start.

c. *[material circumstances]* I drafted this piece from the summer 2022 to summer 2023. I embarked on it after a friend whom I met through student/adjunct organizing in graduate school forwarded me the call. This period marks the first time since completing doctorate studies in anthropology in 2016 that I have been appointed a long-term faculty position. The potential to stay, make place, and sustain a basic living has offered the time and space to experiment with form and ideas. During this same time, unionized academic workers in public university systems in California, Michigan, and New Jersey went on strike, demanding, among other things, livable wages and longer contracts. Many demands were not met, but there were partial victories and new alliances.[6] I have not been to India to visit family or field sites in almost five years. I cancelled a trip in June 2020 due to the Covid 19 pandemic. Meanwhile, Uttarakhand saw a massive surge of reverse migration as migrant workers lost work in cities, leading to new grassroots efforts to revive the rural economy and agriculture. That same June, the Prime Minister's cabinet introduced executive orders that removed farmer protections in the globalized market under the guise of farmer choice – leading to the longest farmer protest in Indian history and eventual repeal of those laws. Such events remind me that writerly experiments such as these are not ends in themselves, but rather arenas to create, reflect, suture, be, and imagine in order to build towards something, collectively.

[6] As I completed a final revision in the 2023-2024 academic year, we've seen widescale student mobilizations to pressure universities and colleges to disinvest from militarism and the genocide in Gaza, and the structures of U.S. academia critiqued in this work have been weaponized to crack down on academic freedom.

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