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Mobility, milieu and the ethos of care

Exploring the rabari camel-pastoralist kinship of Western India

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ABSTRACT

This paper throws light on how mobility is practiced as a unique form of care by the Rabari pastoralists of Gujarat. The Rabari-camel pastoralist communities traverse the arid lands of Western India to ensure the health of the camels, the vitality of the environment and the economic and social sustenance of the Rabari. It shows the ways that mobility is co-constituted, embodied and enacted as an inextricable relationship between the pastoralists, the animals and the environment. Through the practice of multi-species - mobility the conceptual and sensually experienced landscapes merge into the 'milieu'. It shows how the dynamic, sensory and material Rabari 'milieu' is threatened by mainstream spatial politics, and sedentist, dualist imaginaries. Finally, it examines how reciprocity and care is leveraged as a adaptation and survival mechanism under growing pressures.

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Introduction

'Jyaan maal ne maja aave, tyaan amane maja aave' [where the animals are happy, is where we are happy] is a maxim oft repeated amongst the Rabari Pastoralists of Western India (Vibho, Nagabhai, Namabhai, Mansabhai, et al, personal communications, 2018-2024). This paper draws on the thick, intimate, interspecies kinships of the Rabari camel - pastoralist communities to add to the recent interest in 'care' as a practice of understanding, making and maintaining landscapes (see de La Bellacasa, 2017, Jacobs & Wiens, 2024; Musacchio, 2013; Wästfelt et al., 2012). There is growing recognition that human intervention, shaped by mainstream colonial and capitalistic frameworks, has been extractive. Scholars are looking to learn from indigenous interactions with landscape as forms of care (see Anderson, 2005; Gadgil et al., 1993; Kimmerer, 2013; Spruce & Thrasher, 2009).

Inhabiting the dryland regions of Gujarat state, which see low and unpredictable rainfall, the Rabari-camel communities travel throughout the year across coasts, farms and fallows to access fresh forage. Drawing on ethnographic research, we show that movement improves the health of the animals and the landscapes they traverse, and ensures the social and economic sustenance of the Rabari.

45% of the earth's surface consists of rangelands, especially drylands, where mobile livestock keeping is practised by close to 500 million people (ILRI et al., 2021). India, too, has a significant population practising pastoralism as a primary livelihood, with over 75% of its area considered drylands (Tewari et al., 2014).

Understanding pastoral mobility as a practice of care towards the landscape has both heuristic and conceptual significance.

Pastoral mobility describes ways in which humans-animals-environment relate and activate mutual care. It pushes us to challenge the nature-culture abstraction so rife in mainstream structures and statist visions of care like conservation.

By care, we refer to the relationships and responses to what is noticed in the landscape, that provide for the landscape's health, welfare, maintenance and protection while paying attention to avoiding damage and risk (Nassauer, 2011). Care is a deep, pervasive, cultural norm and knowledge system that can foster stewardship towards the environment (ibid.). The Rabari landscape cannot be separated from the pastoralists and their animals – sheep, goats and camels in this case. They're interwoven into a 'complex, life-sustaining web' (Tronto, 1993) that is perceived, embodied and nurtured through mutual care.

In the second section, we unpack Berque's 'milieu' and expand it to see how the Rabari 'milieu' is constituted and enacted by an intimate multi-species community on the move. We understand how this milieu is temporally coded, defined by mobility and multi species kinship.

Rabari migration is an alignment with the wetness of the monsoons—the Rabari have migrated from mangroves to farms depending on the availability of water-fed crops or natural vegetation for generations. This leads to rich affective, sensory memories and intergenerational embodied knowledge of the landscape which is entwined with seasonal changes. According agency to their animals, expands the Rabari milieu through the sensory capacity and memories of the animals.

We show that what is 'noticed' is an effect of multi-species interactions over time and space in a sensorial and dynamic 'milieu' rather than a passive, static, external and politically defined 'landscape'. The milieu is both material and conceptual. It emerges through material multi-species encounters, but also through ideas, myth and imagination that in turn shape pastoralist identity, culture and collective organisation.

The milieu is thus an embodiment and effect of a multi-species assemblage that activates reciprocal care, as shown in the third section. This care is exercised through synchronising with the spatio-temporal rhythms of the milieu, which helps build kinships and assists in landscape regeneration. We show how care is reciprocated across all three prongs of the human-animal-environment assemblage.

In the fourth section we discuss the oppressive developments and shifts in political economy that are severing the intricate inter-relationships between pastoralists, the animals and the living landscape, limiting how care is offered and received. Having understood the symbiotic relationship between pastoralist-animal-environment, we look to ways in which mainstream development diverges from and actively undermines the flourishing of this relationship. Focusing on this dissonance alerts us to the perils of losing the Rabari ways of being to the state's developmental vision, especially in a context of growing climatic and socio-economic stressors.

Lastly, we discuss how essential the maintenance of reciprocal care is to Rabari culture. It is the cornerstone of sharing resources, landscape, resolving conflict, negotiating boundaries and adapting to oppressive developments.

Mobility and milieu

Mobility is incorporated within the culture of the Rabari community as well as each individual self. Every Rabari migration acts as the material manifestation of the interrelationship between human-animal-environment (Maru, 2020).

Adapting from Berque (2000) we show how the Rabari experience landscape as a network of relations, rather than a geographical or territorial limit or vista. Augustin Berque (2000) explains that thinking of landscape as an external object, separates us from the capacity to make it, or simply be in it. A separation of nature from culture paralyzes us in the making of landscape. He proposes the 'milieu', to connect landscape thinking and landscape theory - that is, the understanding that landscape is both experienced, conceptualised, physically present and altered at the same time.

For the Rabari, the landscape is not as a static constant but is experienced and imagined through mobile multi-species encounters. Their practices reveal an alternate paradigm of inhabitation, where the milieu is expanded by the collective multi-species affective and sensory inputs. In this section, we show how mobility and the milieu are co-constructs that actively define bodily, socially and culturally ways of knowing and being simultaneously. (Figure 1. Milieu. Memories, temporalities, semiotics are mapped and overlaid on the physical landscape in the Rabari Milieu. Illustrations of Namabhai's memories overlay on vistas from walks. ALT Text: The four photographs, to be seen in pairs as a photograph of a place and an illustration of Namabhai's memory over the image. The first shows dirt paths through grasses and mangroves along the coast, a high sandbar can be seen to the left, and a small hill far in the distance in the front. In the paired illustrated photograph, the low grass on the right of the image is replaced with dense lush



Figure 1. Milieu. Memories, temporalities, semiotics are mapped and overlaid on the physical landscape in the Rabari Milieu. Illustrations of Namabhai's memories overlay on vistas from walks.



Figure 1. Continued.

mangroves. The second photograph pair shows the same distant hill but a bit closer, with a small stream making its way to sea, and a pair of mangroves in the foreground. The illustrated image, shows a monsoonal flood, in which the mangroves are submerged.)

Mobility-milieu as a multi-species embodiment

The pastoralists intelligently harvest the variability in vegetation, soil, terrain and climate to ensure that the animals are offered only the choicest forage (FAO, 2021; Krätli, 2015; Krätli and Schareika, 2010). The animals 'maja'[happiness] is tied to weather, environment and forage

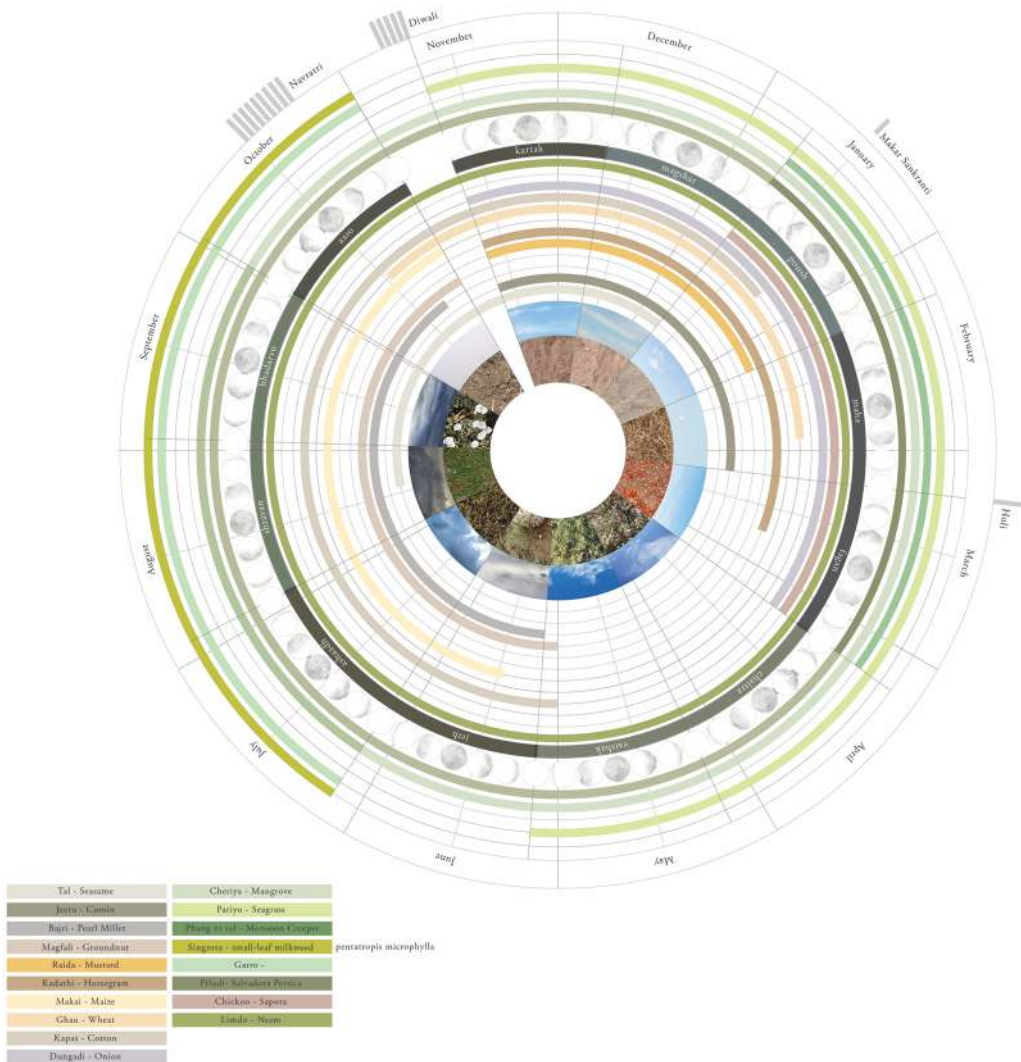


Figure 2. Seasonal Calendar. The hydrological cycle determines the vegetative growth and the movement of the Rabari-camel community in the arid lands of Gujarat. In the monsoons the offshore islands (bets) have fresh water and the camels can graze on mangroves and other halophytes. In the winters they rely on crop residue, and summers a mix of natural coastal vegetation and leaves from orchards.

conditions. The pastoralists keenly observe their companions, noting their responses and preferences for certain flora, seasons and climes. They simultaneously track what grows in which season, monitoring and recalling changes over years, layering this knowledge, with that of tides and waters, determining the right moments for access. (Figure 2. Seasonal Calendar. The hydrological cycle determines the vegetative growth and the movement of the Rabari-camel community in the arid lands of Gujarat. In the monsoons the offshore islands (bets) have fresh water, and the camels can graze on mangroves and other halophytes. In the winters they rely on crop residue, and summers a mix of natural coastal vegetation and leaves from orchards. ALT Text: The image shows a calendar in a circular format starting from mid-November. Each ring contains a coloured bar which shows the growing season of a plant on which the camels feed. The central two rings contain photographs of the ground and skies captured in the month).

On one of our walks along the Saurashtra coast with the sociable Nagabhai, the camels pushed past us, getting impatient by our slow pace. Sensing their unrest and excitement, Nagabhai commented, '*Aagad piludi hashe - ene joi ne utavada thai chhe. Piludi ma hamna fal besya chhe - ey toh maal ne khub j bhaave*' [There must be 'piludi' (*Salvadora persica*) ahead – they (the camels) are getting restless seeing it. Piludi must be fruiting right now and the camels really like it] (personal communication, February 19, 2023). The camels could possibly see above and beyond our vision, to where the piludi was, besides being able to smell the fruit. Nagabhai too could read their body language and experience a landscape far beyond his visual field through the vista offered by the camels' behaviour.

'*Maal mathi khabar padi jaay*' [We know from the animals] said Hemangbhai (personal communication, December 3, 2019) referring to reading the quality of soil from his sheep's behaviour. The animals prefer vegetation on *kadak* (strong) or *kharu* (salty) soils rather than those that are low on minerals or *modu* (bland). The 'taste' of is ascertained by observing behaviour – sheep grazing on *kadak* soils keep together and are easier to manage, and their hunger is more easily satiated.

Vegetation, too, is meethu (sweet) or modu (bland), often based on plant life cycles. Mansabhai (personal communication, February 15, 2023), a young camel keeper, explains that the yellow, more mature, mangrove leaves are better for camels than the greener, newer leaves. These leaves are found deeper in a mangrove patch than around the edges. For the Rabari each patch of mangrove or bush is locally recognised and named, based on geological features, vegetation, tidal features and historical events, amongst others.

The experience of the landscape is encoded by the composition of multi-species community on the move. The pace of walking, and the nature of the path, whether pastoralists or animals lead the herd (Gooch, 2008) and the attentiveness required vary greatly depending on the species and composition of the companion flocks. A camel keeper for example, as Niviben explains (personal communication, August 13, 2023) holds his head high to watch the camels, while a shepherd always hangs his head low to track the grazing sheep. Camels don't face predation the same way as sheep and goats do, and walk faster, allowing pastoralists relaxing pauses while camels graze.

The rhythms of Rabari social lives synchronize with the ebbs and flows of monsoon, vegetation and tide. During the monsoon, Nagabhai sometimes with companions Nerubhai, Lethabhai and Ludhabhai, Nusabhai, Nadabhai Jat amongst others (Kusmer, 2018; Mukherjee, 2022) swims his (and their) camels to the islands off the coast of Saurashtra, where the availability of fresh water allows them to feed on the ample halophytes independently. He spends these months decelerating his journey, only occasionally returning to the camels. The monsoon is often a time of homecoming for pastoralists as they return to their village homes, albeit briefly, and social celebrations such as weddings are often organised around this time.

Mobility-milieu and seasonality

Through their mobility, the Rabari pastoralists are constantly renegotiating the boundaries of the landscape, otherwise seen as a fixed and delineated slice of land (Wästfelt et al., 2012). The Rabari pastoralists move with and in the landscape as it shifts at a variety of spatial and temporal scales. The hit 2019 pop song *Girdhari Gher Aavo Ne* [Girdhari come home] by the famous Rabari singer Gaman Santhal reflects the importance of seasonality –

*'Ashad mahino aavyo ane mehulo kare zakam ji
dhare chamke jone vij
Eva madhura toke chhe mor.'* (Santhal, 2019)
[The Ashad month is here with the beginning of rainfall
See the lightning shine on the edge (of the sky)
And the melodious peacock sings].

The song goes through the 12 months of the Gujarati lunar year, and their socio-environmental features: the cold of Maha, the flowers blooming in Fagan, the pomegranates and grapes

ripening in Vaishaak, and the return of the shepherd God, Girdhari, from journeys grazing livestock in Ashad.

Weather, as a temporal aspect of the environment, contributes to the perception and conception of a Rabari milieu. While this is emphasised by scholars such as Berque (2013), and others (see Watsuji, 1988/1966), the role of mobility in shaping the experience of weather is only now gaining attention. Weather creates a connection to places and times, a remembrance of seasons past and anticipation of future weather (Adams-Hutcheson, 2020).

'Tamne tyaan bahu gami jasho. Tyaan ghana zhaad hoy ne chaaydo. Ne nahava ghanu pani made. Ane tyaan ni mati chaute nahi kapdane' [You will like it a lot there. There are a lot of trees there and shade. And lots of water to bathe. And the soil does not stick to your clothes] says Vibho Rabari (personal communication, January 27, 2020) speaking of their onward journey. His family, like many others, traverses and dwells across a 'temporally ordered sequence of vistas' (Ingold, 2000: 240) - from the dryland commons which are verdant with fresh grasses like Jhinzavo, Dhamaan, Chichani, Shiyalpuchh, Laamp, Danoi, Mandhanu, Khevai, Saaon, Kuritaral, Dhrab, Kuyali, Muth, Unai, Savani, and Dhabhaddo (Bharwada & Mahajan, 2012) in the monsoon, to agricultural hotspots in the winter and summer grazing crop residues; like sesame, pigeon pea, cotton, castor, sorghum and cumin. Travelling with shifts in weather the pastoralists experience landscapes only in particular vegetative states.

Vibho speaks of a temporally coded, lived milieu, reiterating the feeling of *maja* or joy of being there. The milieu emerges as a 'composition of places' (Casey 2001a: 689) rather than an abstract space. The region is appreciated for its features and for the experiences of cool shade and water, and non-sticky soil it offers as respite from the blazing summer heat. Yet, when the monsoon arrives the same soil becomes undesirable. It retains moisture and becomes mucky making it difficult for both humans and animals to walk. As the monsoon approaches, Vibho's family return to the now verdant stony high terrains, that seem *sunnu* or deserted to Vibho in the summer months.

As one walks, the physical elements of the landscape merge into the conceptual – the space of inhabitation oscillating from a physical entity to a relational memory. For instance, on our walks with Namabhai, he spoke of mangroves through memories of where the camels liked feeding last year, of a location where he almost drowned from flash monsoon floods, or portions where the Forest Department had tried plantations.

Mobility and the maldhari

The Rabari in Gujarat identify as maldhari, where *maal* means livestock and *dhari* means keeper (Choksi & Dyer, 1996). *Maldhari* is not only an occupational identity but also a socio-cultural system, central to which is the practice of mobility.

Mobility alerts pastoralists to subtle changes in their material environment and expands embodied and emotional ways of being and knowing (Casey 2001b; Tronto, 1993). Walking through the mangroves one day, Nagabhai pointed into the distance and exclaimed (personal communication, March 10, 2024), *'Jo tyaan shiyaad che! Ootdi ne tyaan thi nahin layi javai'* [Look there, there's a fox! We can't take the camels from there]. Straining our eyes into the horizon, we couldn't see the fox, only catching a glimpse of him as he ran across the edge. Nagabhai teased, *'Tamara jeva ne nahin dekhai, hu toh kyaar no jou chu eene'* [The likes of you won't be able to see, I'm seeing him for a long time though].

The previous night, after a simple but delicious dinner, we lay stretched out on our charpoys with Nagabhai, his wife Niviben, and his niece Sugnaben close. As the sky grew darker, Nagabhai (personal communication, March 9, 2024) pointed into the distance and asked if we could tell the colour of the camels resting a few metres away from us. Looking at their shadowy silhouettes, supported only by the flickering light of the fire, the faint light of stars and star-like company lights in the distance, we could barely tell. All three of them, could clearly distinguish the camels' colours. (Figure 3: Niviben and Sugnaben share a light moment over the hearth. *Cellphones are essential modes of communication and entertainment. Many evenings are spent calling family and friends, in part to fill the social gap from having to travel in smaller groups than earlier. Sugnaben, like many younger community members is very active on social media, penning eco-feminist poems in Gujarati that she carefully edits into videos. The men too use social media and phones extensively, keeping track of the locations of friends, foraging conditions and maintaining relationships. This has begun to*



Figure 3. Niviben and Sugnaben share a light moment over the hearth. Cellphones are essential modes of communication and entertainment. Many evenings are spent calling family and friends, in part to fill the social gap from having to travel in smaller groups than earlier. Sugnaben, like many of the younger Rabari is very active on social media, penning eco-feminist poems in Gujarati that she carefully edits into videos.



Figure 4. The authors' tent pitched next to Niviben and Nagabhai's charpoys on camp. Our methodology of 'being there,' nudged us towards sleeping on camp with the Rabari and camels, and being part of their daily routines, experiencing the landscape as events.

alter their journeys, with pastoralists often choosing to camp where they have access to electricity to charge their phones. ALT Text: The image shows a barren field where two women dressed in traditional red clothes are squatting in the shade of a tree on one end. One woman is adjusting a brick to make an outdoor campfire while the younger one is showing her something on the cellphone as she laughs. Figure 4: The authors' tent pitched next to Niviben and Nagabhai's charpoys on camp. Our methodology of 'being there,' nudged us

toward sleeping on camp with the Rabari and camels, and participating in their daily routines, experiencing the landscape as events, and allowing ethnographic questions and methods to emerge from encounters. ALT Text: The image shows two woven beds with a man lying snuggled under a blanket in one. There is a green tent pitched next to the beds with camels sitting in the backdrop, a woman is milking one of the camels.)

Likewise, Vibho's mother Pabiben can distinguish between different weather and winds. She can differentiate between *gaari taad*, or damp cold, which is harsher than *vai ni taad*, or windy cold that can be protected against through tenting. Unlike those who are attuned to seeing only as far as our books or computer screens, Pabiben says (personal communication, December 19, 2024), the pastoralists, inhabiting an open landscape, are used to seeing in the distance looking out for any predators or threats. Similarly, they can distinguish the footprints of their animals just as we can tell the different handwriting of our friends as Hemangbhai quips (personal communications, January 18, 2020). Rain soaks the skin, the breeze brings goosebumps, and the sun tans and freckles it (Adams-Hutcheson, 2020), but the effect of being with the weather, environment and landscape, as a way of 'interbeing' and 'becoming animal' together with the livestock (Abram, 2010), seeps in much deeper to shape identities, personhood, community and cosmology. The *taap tatkane vethelo* maldhari, that is the pastoralist who is hardened by the blazing sun and its heat, is seen as resilient and courageous, his herding stick a symbol of his vigour and uprightness in the community.

Mobility, milieu and mutual care

While mobility was thought of variously as survival, frivolity or even criminality (Maru, 2020), it is recognised as central to pastoralism (FAO, 2021, Agrawal, 1999; McGahey et al., 2014), offering both enhanced economic productivity and environmental regeneration. A care perspective encompasses narratives on pastoral adaptation, resilience and sustainability and adds to it by leaning into the mutual attuning of humans-animals-environment to each other's rhythms and affects. This section shows how reciprocal care is performed and sustained, how milieu is read through and presses on multi-species relations.

Spatio-temporal synchrony

Pastoralists strategically move between regions of optimum forage to 'intelligently harvest' the most nutrition for their animals (Krätli & Schareika, 2010). This practice enables pastoral systems to be 2 to 10 times more productive in drylands than settled livestock keeping (Scoones, 1995).

The pastoral-flock community synchronises their movements to environmental pulses. Moving their animals to ideal conditions rather than enclosing and irrigating a piece of land, allows more pastoralist-flock communities to thrive while reducing environmental impact. The timing, frequency and pace of movements are adjusted to plant cycles, so the community arrives in crop fields after harvest, along the coast as halophytes bud out of the soil and mangroves fruit.

During the winter months, in response to smaller quantities of hand-picked cotton residue lands being available, the pastoralists disperse with smaller flocks. As machine-harvested wheat opens large pastures in spring, the pastoralist-flocks converge. Altering the size of their group, ensures emotional and logistical support for the Rabari when the groups are larger, and sustainability of landscape and nimbleness when smaller, preventing over-foraging and conflict. Drawing on deeply pervasive cultural norms and knowledge systems, emerging from 'dwelling' (Ingold, 2010) in the milieu, enables the social institution of a migrating group to manifest modularity and agility.

Seasonal synchrony is also linked to daily movements. When grazing in a Sapota grove, Nagabhai moved with short pauses for the camels to browse. Light browsing helped vary the daily diet of the animals, while ensuring sufficient time for the tree to regenerate. In turn, Nagabhai's flocks could return to the grove in a few days' time rather than having to stay away for months if the trees were thoroughly grazed. This sort of environmental management of commons, defying Hardin's theory of the tragedy of the commons is seen in pastoralist ethics across geographies (Berkes et al, 1989: 92 from Casimir, 2021, McCabe,

1990). These acts of intentional consumption, emerge from a sense of long term sustenance, but also a reciprocal care for the shared milieu. This is care exercised across the past, the present and the future, and materialised through the knowledge that the trees that offer nourishment to camels, also offer life to other beings and livelihood to farmers.

Multi-species relationships

The animals too physiologically adapt to local environmental conditions, enhanced through selective breeding. Just as the hefted flocks of the United Kingdom (Gray, 2014), experiential knowledge of the landscape becomes intuitive and is passed down from generation to generation, both animal and the pastoralist.

The pastoralists share an intimate relationship with their animals. Camel are described with names like bhuri [light brown], chhavri [long eared], and a good camel is defined as *rupali* [beautiful] rather than objective characteristics like milk-producing. The camel respond to their name and a series of whistles and sounds made by the pastoralist, each signifying a distinct action.

Almost like a parent, Nagabhai can understand the cries of his camel companions. Once, explaining the grunts of a camel while we were grazing them along the coast, he said (personal communication, January 10, 2024), '*Eyy bhuli gayi chhe ke enu bacchu muki ne aavi chhe*' [she has forgotten that she has left her calf behind (at camp)]. She was now calling out in distress trying to track her child.

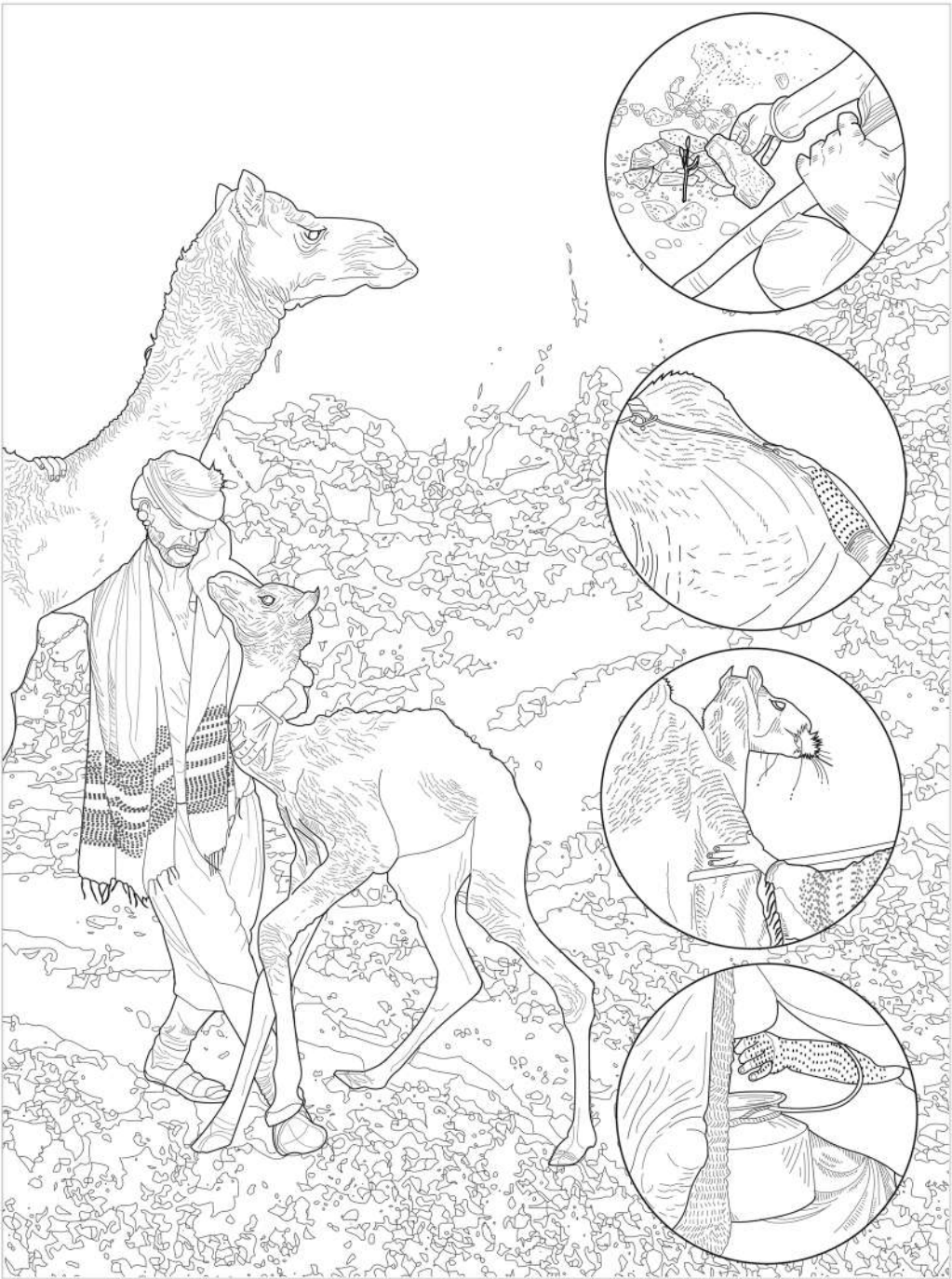
'Aa toh bas mane j doodh paave, mane dikro mane' [this one only gives me milk, thinks of me as a son] he told us back at camp pointing to a tall ochre beauty. This camel, Bari came to him when he was young and has a deep fondness for him. Camels care deeply about their own children, especially young mothers. Bari kept a watchful maternal eye on Nagabhai throughout our walks, lovingly nuzzling him when he stood close. (Figure 5: Interspecies kinship. *The pastoralists communicate with and care for their animals through whistles or touch, looks and gestures. Their kinship is often visible in the gentle touches and caresses.* ALT Text: A digital illustration in linework shows a man hugging a baby camel with one hand while draping his other hand over the mother camel. Small circular inserts show detailed line drawings of hands making a bund around a sapling, a tattooed woman's arm draping a woven harness over a camels hump, a man's hand nudging a camel along, and a woman's hand milking a camel.)

As Haraway (2020) provokes, the pastoralists and flocks 'make kin', and their milieu is co-constituted through an expanded multi-species sensorium, shared language, memory and knowledge. The nature of care for the milieu is shaped by this kinship, built on intimacy, recognition of personhood and trust. Multi-species alliances are key to care shared between the landscape, the animals and the pastoralists. The simple duality of the herder and herded, thickens into a community that moves together and activates reciprocal care.

Care and the landscape

The migration of the animals across the landscape offers several ecosystem services. Grazing by livestock is said to prune vegetation helping maintain biodiversity and prevent wildfires. Rotational grazing or mobility allows for rest and regeneration of the landscape. Further, animals in mobile systems aid in seed dispersal improving plant richness and heterogeneity (Azcárate et al., 2013).

(Figure 6: Walking with Namabhai, his son and their camels in the mangroves. The Rabari's often reiterate that mangroves are essential for the health and happiness of the camel and conversely that camels are essential to mangrove regeneration and vitality. The state's effort toward conservation decrees large tracts of mangroves as 'sanctuaries' or 'reserved forests' and takes a negative stance on the Rabari camels feeding in the mangroves. ALT Text: The image shows two Rabari men dressed in traditional white clothes with red turbans carrying a sticks across their shoulder walking into the mangroves, a camel is leading the way. The soil in the foreground is sticky and muddy and in patches filled with water, the trail the men are walking is submerged in a little water. & Figure 7: Regeneration. Camel hooves create little craters in the soft, muddy soil of the creek - perfect pockets to hold floating mangrove seeds just long enough to sprout. ALT Text: The digital linework illustration shows a camel in the foreground near a mangrove sapling. The camel is looking at a black necked stork. The camel's footprints are leaving dents in which mangrove saplings are emerging, the pathway is surrounded by mangroves.)



[KINSHIP]

Figure 5. Interspecies kinship. The pastoralists communicate with and care for their animals through whistles or touch, looks and gestures. Their kinship is often visible in the gentle touches and caresses.



Figure 6. Walking with Namabhai, his son and their camels in the mangroves. The Rabari's often reiterate that mangroves are essential for the health and happiness of the camel and conversely that camels are essential to mangrove regeneration and vitality. The state's effort towards conservation decrees large tracts of mangroves as 'sanctuaries' or 'reserved forests' takes a negative stance on the Rabari camels feeding in the mangroves.

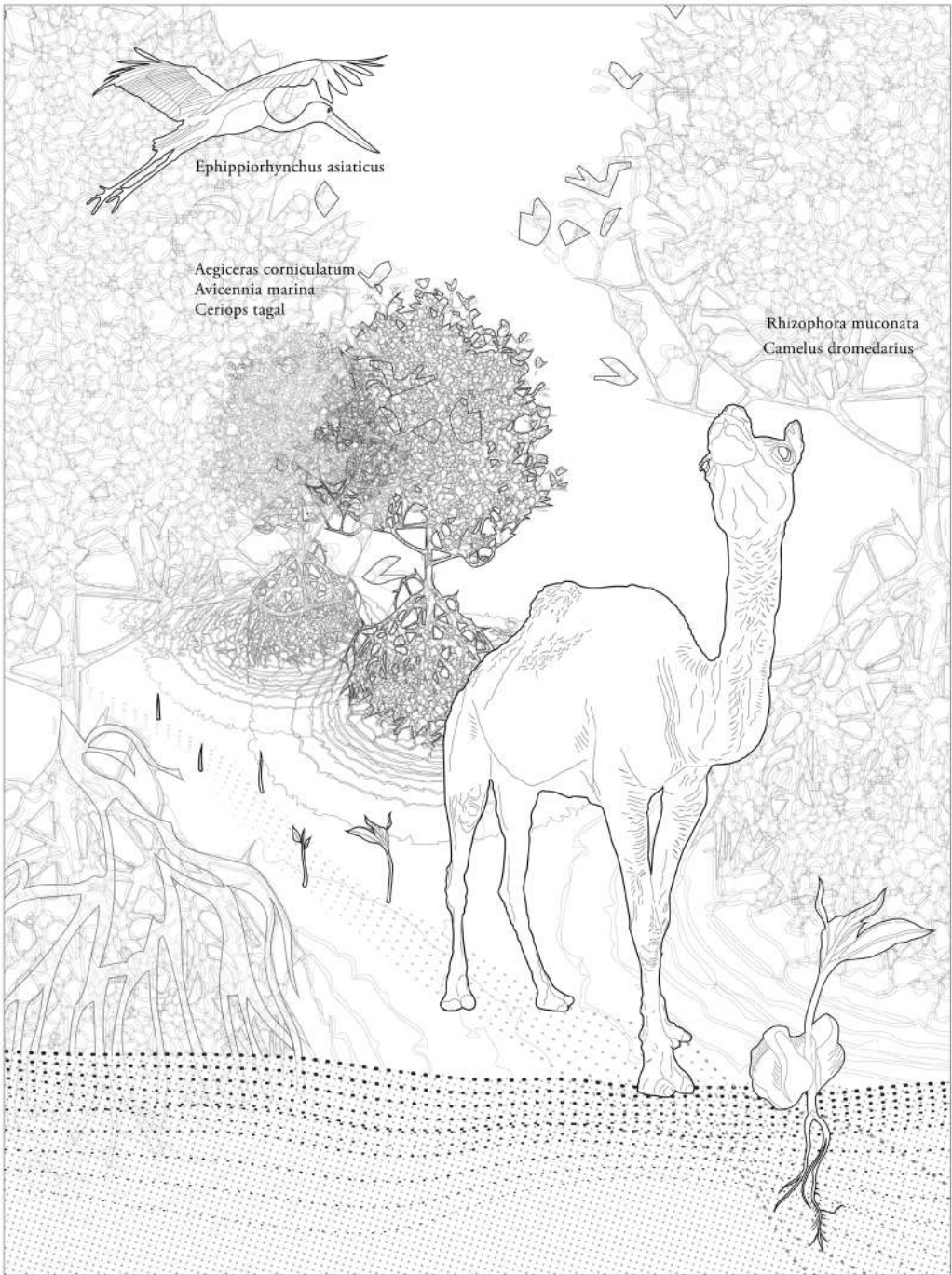
Pastoralists often iterate that the hoof action of the animals helps aerate soil and improve soil fertility (Mukherjee, 2022). While grazing camels in mangroves in Saurashtra, Namabhai pointed to hoofmarks left behind in previous visits. In the small depressions the hoofs had made in the soft sandy coastal soil, we could see new mangrove buds blooming. Namabhai reasoned (personal communication, February 17, 2023) that the shallow depressions served as ideal sites for new buds to grow as water was retained in them.

In the same small shallow pools, we saw small marine insects thriving. Here, too, Namabhai contended (personal communication, February 17, 2023) that camel dung improved soil quality, and assisted in insect diversity. Through their dung, livestock are known to improve soil, biodiversity, water retention and microclimates (Prajapati et al., 2023). Animal dung offers important nutrients as well, cycling nutrition from vegetal biomass into soluble manure, edible proteins and micronutrients (McGahey et al., 2014). In fact, locally it is believed that manure from travelling livestock is more nutritious for the soil than from settled local livestock as they graze on a wider variety of vegetation. In rural Gujarat, sheep and camel dung is also especially valued as it does not rot or get insects on storing for long, unlike the wetter cattle dung, Niviben explained (personal communication, January 10, 2024).

On a walk with Nagabhai, he pointed at various spots where he had created small single row bunds of pebbles to protect young piludi saplings from the increased wind after vegetation was cleared to establish salt pans. It was interesting to note, that he intentionally did not plant saplings, only created conditions to help them repopulate in the conditions they chose to sprout—acknowledging the agency of plant life in making the 'milieu'. His camels love piludi, and his action to support it will receive reciprocal care. Through such engagement the pastoralist-camel complex offers care to the landscape but also receives care through the continued fruits and forage received. The intricate interconnectedness enshrined in the Rabari milieu allows for a truly reciprocal relationship of care, from the pastoralists, their animals, and the landscape.

Care and its politics

While the care offered to landscapes by the indigenous and embedded pastoralists is acknowledged academically, it does not often translate to policies and action on the ground. Pastoralists in western Gujarat continue to face adverse policies that limit their capacity to offer and receive care from their milieus.



[REGENERATION]

Figure 7. Regeneration. Camel hooves create little craters in the soft muddy soil of the creek - perfect pockets to hold floating mangrove seeds just long enough to sprout.

Contesting ideas of care

One of the main challenges faced by pastoralists is care exercised through fortress conservation (Maru, 2022). The Rabari like Nagabhai can no longer freely graze their camels in the mangroves in Gujarat due to restrictions imposed by the state Forest Department which has declared many as part of Marine National Parks (Mukherjee, 2017; Srivastava & Mehta, 2023) to be protected from all activities.

On one of our trips, we walked 10 kms with Nagabhai past fallows, salt pans and huge oil and petrol refineries until we arrived at a patch of lush mangrove. As we were walking, Nagabhai's eyes constantly surveyed the field, darting back and forth, ever cautious of transgressing the invisible fences drawn by the changed administrative category of the land. If caught the pastoralists are likely to face fines, and rarely, confiscation of animals. To avoid the risk, Nagabhai says he would quickly retreat towards the village if he saw an officer coming his way and would whistle to direct his camels to disperse into the thicket of mangroves, strategically hiding themselves.

The act of taking his camels to graze in a conflicted territory is a relational political act, one that implicitly trusts the agency of the camels, reads them and interprets their affective experience and preferences, and navigates the complexity of territorial claims and their political enforcement at multiple levels on the ground. The act of grazing in this territory, so well-known to Nagabhai, now requires layers of negotiations that unfairly oppress, disenfranchise and impoverish pastoralists. In shared commons, grazing in the mangroves relies on tide – and seasonal fodder. Within enclosed and conserved spaces pastoralists must foreground the rhythms of the state rather than environment.

(Figure 8: Navigating industrialized and privatized coastal boundaries with Nagabhai. Nagabhai and his camels transgress the boundaries of protected mangrove forests, privatized industrial or farmland, salt pans and oil refineries, while grazing. This skirting of borders is rendered possible through Nagabhai's ease with building personal relationships with guards and workers, and his reliance on his camel's intelligence - he hides or disappears into the mangroves if they are spotted, and rushes home while the camels graze and make their own way back. 'One can arrest a human, not camels.' ALT Text: Two Photographs look at the camels as they graze on industrialized and privatised land. The first showcases a backdrop of the buildings of an oil refinery with marshes in the fore. The camels are grazing in the marshes, a stone wall with an electrical wire winding is seen on the right. The second photograph pictures camels feeding on a short neem tree by a field of grains. Rabari men keep a close watch to ensure the camels don't eat the crop.)

The dynamic milieu of western Gujarat that nurtures diverse forms of life has often been misunderstood as 'empty', 'barren' and 'waste' (Nair, 2020). The state-driven 'greening' of the 'empty desert' arid region with invasive *prosopis juliflora*, supposedly to arrest desertification and enacted as a form of care, has led to a decline in native grasses and shrubs and a drying of the wetland grasses

Modernity, privatisation and industrialisation

The pastoralist relationship with land has faced a long history of political subjugation and hostility. Both colonial and post-colonial governments have seen pastoral mobility as opposed to the more extractive "globalising modernity of (neo)liberal capitalism" (Scoones and Stirling, 2020: 2). Embedded in a shifting political economy, mainstream development seeks to enclose and privatise common grazing lands, restrict pastoral mobility and appropriate resources.

Common fallows that serve as important pastures have been mis-categorised as 'wastelands' through colonial conception that saw all lands not under private ownership as 'waste' (Baka, 2013). Private ownership was considered an incentive for investing in land but such a view, steeped in commodification did not fully recognise the conjugal relationships of the milieu. Hence, 'wastelands' in Gujarat have been opened for privatisation through commercial horticulture and industrialisation through tax-free investment (Bharwada & Mahajan, 2006).

The expansion of resource-intensive commercial agriculture on grasslands is also reducing pasture availability. As part of their reciprocal relationship with farmers, pastoralists do not graze on standing crops. Irrigation through bore wells and canal systems and short cycle hybrid crops are enabling second crop cycles in arid lands and reducing grazing periods. Chemical fertilisers are abstracting cultivation from the natural properties of soil obscuring the pace required by ecological soil care through techno-scientific intervention (de la Bellacasa, 2015). The value of livestock manure and draught power is reducing as synthetic alternatives and



Figure 8. Navigating industrialised and privatised coastal boundaries with Nagabhai. Nagabhai and his camels transgress the boundaries of protected mangrove forests, privatised industrial or farm land, salt pans and oil refineries, while grazing. This skirting of borders is rendered possible through Nagabhai's ease with building personal relationships with guards and workers, and his reliance on his camels intelligence - he hides or disappears into the mangroves if they are spotted, and rushes home while the camels graze and make their own way back. 'One can arrest a human, not camels.' All images are authors' own.

mechanisation prevail. Additionally, there is a growing rift among farmers and pastoralists as development policy continues to privilege settled crop agriculture and dairy farming, over pastoralists.

All these shifts are embedded in capitalist and colonial visions that privilege a singular and linear path towards development and modernity. Pastoralists remain at the margins of this vision, considered backwards for their mobility and multi-species living – the very practices that render them lean, efficient, environmentally sustainable (Agrawal, 1999) and embedded in the milieu. Such shifts lead to the disruption of caring human-nature relations.

Reciprocity and care as adaptation

'You can trust the Rabari a hundred percent. Even a farmer knows that a Rabari will not even take a grain of wheat without asking. If any woman sees a Rabari in the field, she is not afraid.

If a Rabari is there, he will protect her,' says Nathubhai (personal communication, February 15, 2023) to reinforce their trustworthiness when they gathered together to shear his sheep. Extending from landscape to human and non-human communities, from the protection of wheat fields, mangroves, animals, to humans (although steeped in a patriarchal and casteist imagination), the pastoralists mobilise the reciprocal care across their interactions.

'We don't fight, we are all brothers after all. We move with understanding'. [personal communication, Gora Sana, Vagad Rabari, 1995].(Choksi and Dyer, 1996). To 'move with understanding,' is something that is often repeated amongst Rabaris '*Ek beeja ne saathay lai ne chalvanu che*, [we must take each other along as we walk], said Jignaben personal communication, Jan 2024)

As pasture lands and mangroves decline (Kusmer, 2018) Rabari communities find multiple ways to adapt, overcome and even capitalize on difficult framing circumstances (FAO, 2022). Pastoralists and others living in watery landscapes like river lands and tidal zones, constantly live with and adapt to uncertainty (FAO, 2021; Krätli, 2015; Krätli and Schareika, 2010).

Conflicts amongst the Rabaris for shared resources are uncommon and conflicts that seldom occur between pastoralist and farmers are resolved peacefully. Maintaining relationships of reciprocity with farmers, villagers, and amongst other pastoralist is essential for sustenance (Salpeteur et al., 2017) as Jignaben suggests. Relations with farmers are maintained over generations, permissions to enter villages and graze crop residues are always requested before arrival. When asked hypothetically about their response to a farmer renegeing on a promise to allow his camels to graze crop residues, Niviben easily responded, 'Ema su karay, jameen to khedu nij che ne' [What can be done? The land is the farmers].

Negotiation or resolution rather than escalation of conflict, emerging from a sense of reciprocity is a strategy frequently seen among pastoralists. (Bradburd; Lancaster and Lancaster; Miaga and Nadjmabadi, from Casimir, 2021). This system of reciprocity emerges when resources are unpredictable (Peterson, 1975). The maintenance of relationships/reciprocity/'namvanu' or giving in are all parcels of nomadic life. With the Rabari these essential negotiations extend into cultural identity as acts of honour and care.

Rabari's will make longer migrations in cases of drought or change flocks and migrating groups in size and constitution ((Choksi & Dyer, 1996). As larger flocks become untenable, migrating groups are shrinking in size from multiple families to single units like those we met. Camel herders, forcibly separated from mangroves, are shifting to keeping goats and sheep like Namabhai's children or leaving pastoralism behind seeking other professions.

The sale of camel milk was once sacrilegious as milk was reserved for calves (Choksi & Dyer, 1996). In the absence of the rearing and sale of male animals for transport, it is now a significant income source for Nagabhai. Similarly, with the wool market collapsing, the '*paap no dhandho*' of sale of sheep for slaughter in a growing market for meat has gained prominence. Shifting with shifts in the market has been necessary for the Rabari to maintain their identity as *maldhari*, while accruing the economic and environmental benefits of their livelihood.

Mainstream capitalistic development sees nature as passive and incapable of giving, therefore must be taken from, exploited and controlled. It must be acted upon and does not in turn act. But we show that the boundary between people and the environment, and, in fact, between people, animals and the environment, is a false construction and that bridging this divide is essential for sustaining care.

Conclusion

Drawing on long ethnographic engagement, our paper shows how care and landscape are understood, experienced and enacted by the Rabari pastoralists of western India. By care we consider ways in which the pastoralists maintain, continue and restore the 'complex, life-sustaining web' of our bodies, our individual and communal selves and our environment (Tronto, 1993). Unpacking the ways in which the Rabari camel herders themselves understand landscape is the first step towards its sustainable management. In this article we have shown that a milieu, is constituted by and reciprocates care offered through the practice of mobility of the the pastoralist-animal-environment assemblage.

The milieu is always inhabited, navigated, and made through these readings of the assemblage on the move, tied to observations and perceptions of companion species. Care is effected by attuning to shifts in the environment which allows pastoralists to reciprocally receive, economic, social and ecological sustenance.

Yet, such attuning is threatened by a hostile sedentist development paradigm that promotes privatisation and industrialization and seeks to restrict and subvert pastoral practices and relationships. Western, colonial and capitalist frames engage in landscape care by working with slices of bound and fixed land, through individuals and predefined values rather than landscape as a collectively engaged socio-ecological complex dynamic in space and time (Wästfelt et al., 2012). In the Rabari milieu, nature-culture boundaries, and delineations of land dissolve, and reciprocity and mutual care are deployed tactically for survival, adaptation and to negotiate conflicts. Given the importance of pastoralism in western India, and indeed, across the world, understanding these relationships and the challenges they face, can offer ways of safeguarding them, as well as provoke us to question mainstream development that unjustly marginalises pastoralists through narratives of care and progress.

Note on ethics and methodology

This paper draws empirically on long ethnographic research with the Rabari pastoralists of western India. It uses data collected through two research projects - Shah and Maru's research project supported by the Alserkal Arts Foundation, United Arab Emirates and Maru's PhD project approved and completed at the Institute of Development Studies, University of Sussex, United Kingdom between 2019 and 2022. Both authors have several years of experience working with pastoralists and indigenous communities in the past. The research proceeded through mutual consent, comfort and cooperation of the authors and their pastoralist interlocutors. The names of the pastoralists in the paper have been changed to maintain anonymity.

The authors applied a 'nomadic approach' (Hazan and Hertzog, 2011) to their research which included not only being physically present and moving between and across locations, but also methods and concepts. The approach commits to continuously adapting to changes and serendipitous encounters on site, altering viewpoints with each encounter, focusing instead on evidence and observation-based reasoning.

The main method used by the authors is 'being there' through a keen immersion into the daily life of the pastoralists, including mobile ethnography, participant observation, go alongs and informal interviews (Fincham et al., 2010). 'Being there' as a methodology further breaks the duality of thinking about landscape while viewing it as an external object and experiencing the landscape through walks, conversations and participating in the pastoralists' lives. The go-along serves as an effective elicitation technique by engaging a series of unfolding contextual prompts and offers multisensory insights into the experiences and strategies used by diverse individuals to negotiate varied terrain, textures, sights, sounds and elemental processes of everyday life (Bell and Bush, 2021). Spending time and moving with the pastoralists allowed the authors to engage unfolding contextual prompts to explore social and ecological relations. This methodology intended to consistently put the researchers in the 'milieu', actively engaging and shaping self and landscape while conducting research.

They used methods like observation, conversations and informal interviews as well as creative methods such as drawing, crafting, and photo elicitation to gain insights.

Maru and Shah collected data with the camel keeping Rabari of Saurashtra in February and April 2023, and January and March 2024. Maru collected data with the camel keeping Rabari of Saurashtra also in August 2023. Maru provided data from field research with the Rabari from Kachchh between 2019 and 2024.

Author contributions

Shah and Maru conceived the paper together. Maru wrote the first draft of the paper. Shah wrote the interim and final revisions and the final rewrite of the paper. Shah curated the figures for the paper and conceived, created and put together Figures 1, 2, 5 and 7. Maru provided Figures 3, 4, 6, 8.

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Research ethics and consent

This research involved human participants from the Rabari pastoralist communities of Saurashtra and Kachchh. Informed consent was obtained verbally from all participants prior to the interviews and documentation. Given that many participants were non-literate and/or preferred oral communication, verbal consent was deemed the most appropriate and culturally respectful method of obtaining agreement to participate in the study. The verbal consent process included a clear explanation of the research purpose, how their narratives and images might be used, and their right to withdraw at any time.

Explicit consent was procured from all participants, living on camp with them, quoting our conversations and their words, including photographs and writing about their practices, landscapes, livelihoods and lives. To protect the anonymity and privacy of individuals and communities, all names and precise geographic identifiers have been altered or omitted. Participants were explained the contents of the sections in which they appear to ensure clarity and continued consent for publication.

This research was conducted in accordance with ethical standards for research involving human subjects and with sensitivity to the socio-cultural context of the pastoralist communities involved. The research proceeded through mutual consent, comfort and cooperation of the authors and their pastoralist interlocutors.

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Data availability statement

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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