

Living Lightly: Pastoral Futures in a changing world 5<sup>th</sup>-8<sup>th</sup> October, Mills Owner's Association Building, Ahmedabad Creative Head & Editor: Bhawna Jaimini, Design & Layout: Puneet Bansal

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Meet the Breed Saviours Ranabhai & Daiben PEOPLE



**Indian Cheeses** Aditya Raghavan FOOD



Climate Change Janaki Lenin ENVIRONMENT



Inspired by Pastoral Traditions Jogi Panghaal FASHION

# Amul to market camel milk in Ahmedabad

**McKinsey Analyst** becomses Goat Herder ...Page 2

### **Pastoralists** are **Using GIS Maps**

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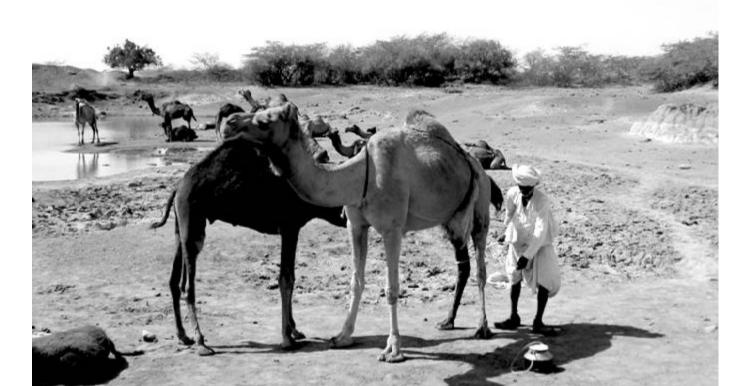
### Jodia Pawo

The Jodia Pāwo or the paired flute is played by many pastoralists of the Banni and Pachham areas of northern Kutch when grazing their animals. It is commonly said in Kutch that animals will recognize and respond to the particular sound of their herder's pāwo.

The Jodia Pawo is an end-blown flute played in Kutch, Sindh, and western Rajasthan. In Sindh, it is known as the algozo.

Contributed by Brian Bond More on pastoral music on page 5







Ahmedabad: Dairy major, Gujarat Cooperative Milk Marketing Federation Ltd (GCMMF), which sells products under the Amul brand, will first start selling camel milk in Ahmedabad and will later launch in other cities. "We have operationalised the standards for camel milk. We took two years to come out with standards. The standards will help better marketing of camel milk in cities,"FSSAI chairman Pawan Agarwal said at the Living Lightly exhibition organised by NGOs 'Sahjeevan' and 'Foundation for Ecological Security' in Delhi in Decemeber last year.

GCMMF marketing manager Hardeep Banga informed that the cooperative will launch camel milk in 500 ml bottle. "Now, the plant is ready in Kutch. We are going to market camel milk in the next three months. Initially, it will be sold in Ahmedabad through Amul booths in 500 ml bottle,"he said, adding that the camel milk would later be marketed in Delhi and Mumbai.

> **Centre for Pastoralism** An Initiative of Sahjeevan

**Pastoral Times** 

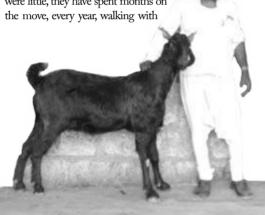
# Meet the Breed **Saviours** By Bhawna Jaimini & Narendra Nandaniya



"Either keep a pure breed or don't keep any animals at all. I told the same to my sons. For generations, we have kept the purity of the breed and today this is our identity. And tell me, would you be sitting here and talking to me if we didn't keep these Halari donkeys?"

Ranabhai a n d Daiben were recently awarded the Breed Saviour ward for their efforts conserving two native astoral animal breeds the Halari donkey and Kahami goat. Ranabhai's eves

melt when he speaks of his Halari donkey. "Have you every seen such beautiful donkeys with a shiny coat? It can put many horses to shame!" The Halari donkeys have been bred for over thirty generations in Ranabhai's family. The knowledge of breeding this strong and sturdy animal has passed through generations. We have been keeping these donkeys and goats for over 30 generations now. This is our life, this is our identity", says Daiben, Ranabhai's wife, as she serves us sweet milky tea. In her seventies, she and her husband live with their children 300 animals in the village Chichhod o f Rajkot District, Gujarat. Since when they were little, they have spent months on



their 'children', the goats and the donkeys.

The size, strength and built of the Halari donkey makes it an excellent pack animal for migration. It is known to carry more than 100 kilograms of weight at once. Along with these donkeys, the maldhari herd the Kahami goat, distinctly recognized by its big built, shiny black coat and reddish brown neck. "Both the halari donkey and kahami goat are excellent amimals for migration as their build and strength allow them to travel long distances with fewer injuries", Daiben explains.

In the middle of the conversation, Ranabhai gets a call from another pastoralist in a neighbouring village, asking him for his alpha donkey for breeding. This is a request he keeps recieving from many pastoralists as he is one of the very few who deeply understands the art of breeding. Ranabhai never turns anyone down; neither has he ever charged anyone a single rupee, on condition that the breed remains pure. "This was something that my father taught me. He used to say that either keep a pure breed or don't keep any animals at all. I told the same to my sons. For generations, we have kept the purity of the breed and today this is our identity. And tell me, would you be sitting here and talking to me if we didn't keep these Halari donkeys?"

Even as I laughed and nodded, two young boys stormed into the courtvard with schoolbags on their shoulders. They were Ranabhai's grandsons who were coming back from school. On being asked if they would continue their profession of pastoralism, Ranabhai thought for few seconds and said, "Who knows? They all go to schools now - unlike us who were always with the animals on the move. In the schools, they learn numbers, but ask them to count the different shrubs that our herds eat, and they will not know! Jaanwar sathe no sahwas karwa aavde, ene kebway maldhari" (only those who know how to live with animals can be called maldharis!)

A few years ago, Babar Afzal was flying to Las Vegas whenever boredom hit, happily spending his \$200,000 salary as a McKinsey analyst without a second thought. It was a life far removed from his childhood spent in Kashmir, where \$300 a month would be considered a good salary.

"Kashmir at that time had a backdrop of terrorism," Afzal, speaking at WIRED 2016, explained. "There was no hope for anyone - except education. I wanted to leave my land forever and never return. It was that extreme." It was a good choice, for a time. But Afzal admits he was "always aiming for something better".

Scrolling through the daily news one day, he came across a new item mentioning the deaths of 25,000 Pashmina goats from his home state. "I found there was some message for me there; some guilt in me. I could not place it." That moment set Afzal on another extreme path. He quit his job, became a goat herder, and today works for the rights of his fellow Pashmina farmers people who have been toiling in high altitudes for little money, for a product that can fetch up to \$200,000 in high-end stores across the globe.

His Pashmina Goat Program was founded in 2013, and Afzal is chairman of the KASHMIRINK Foundation, which raises the profile of the animal.

"I lived as a nomad - with no phone, no electricity. I thought it would be easy but it became very difficult for me. Every few months I would come to the nearest town and something strange would happen to me. If anyone spoke to me loudly or a car honked, I could not take it. I had become a lot more sensitive."

Gradually, a man who had been obsessed with technology began to see other changes in himself. "I had a different way of looking at things. Before it was all numbers."

Working as a goat herder, literally shedding his excess baggage and living minimally with just a staff and blanket. Afzal learned to live in a different manner. He found, it made him feel more powerful.

No longer weighed down by the busy noise of life, he was able to learn from the Kashmiri tribe that accepted him and look at the big picture. He knew that he, like most people, had spent his life "always seeking greener pastures". The goat herders, he realised, knew that no matter how green the next pasture was, it would not stay that way forever. "When we grow up in our careers and life and are doing very well, we don't know when to exit. A shepherd knows when to leave the pasture. That is

## Key to a happy life? Swapping Vegas for the life of a goat herder

Babar Afzal on the freedom he has found living life as nomadic Pashmina goat herder By Liat Clark



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where most of downfalls begin. Leaving the pasture is a very important lesson."

Imagine that all of us are shepherds, he said, and gradually we learn that the more cattle we have the better off we will be. The pastures will deteriorate faster as a result and there will be nothing left.

We need to change our way of thinking to prevent this from happening over and over again. We need to look at divergent examples of innovation instead, said Afzal. "It's a common theme that runs through human innovation

- it's about channeling the divergence." Automotive manufacturers, for example he argued, should not be maintaining the status quo, but asking how we can move away from energy dependence and diverging from the norm, towards a better future.

"Disconnecting myself from my path is something that has defined my life. When you are at the top of the mountain as shepherds are, that's where you are at highest risk of wolf attacks. But for him to stop the flock because of wolves is not the right thing. Because it's a

chain of life. The fear trains the shepherd. Facing the wolves is something I learned. Facing your demons, this is something the shepherds taught me to overcome." "I am free now. Everyone strives for freedom - and I have paid my price and am free."

This article was first published in http://www.wired.co.uk/article/ babar-afzal-mckinsey-himalayan-goatherd-goats

FASHION & CRAFTS | 3

### Clothes Inspired from **Pastoral Communities** by Shabri Wable

### Khesada

Shoulder cloth is an integral part of a Maldhari man's attire, there are many ways a Maldhari drapes this piece of textile which also becomes a shopping potli or a back support while sitting. Living lightly calls for minimum possessions, Maldhari lifestyle is replete with examples on doing much with very little. Informed by these values and inspired by the Rabari aesthetics our take on Khesada is a shawl that can be worn or draped and has a pocket to carry the essential

Sindhi Nada

Maldhari's spartan way of life is adorned by their superior hand skills. Their frugal possessions are endeared with copious decoration. The most ordinary, even unseen, things are lovingly hand-crafted for family. The Sindhi Nada is one such product, it is rarely seen but painstakingly made. In the Maldhari culture everything owned is valued, decoration is the physical manifestation of this Maldhari value.

Maldhari garments are marked by their enormous volumes, although overwhelming, this abundance makes for distinct silhouettes, adds functionality and grace to their gait. However the real beauty lies in the way Maldharis cut their fabric. A classic example is the Ejar, a lower garment worn by women and men in Banni. An Ejar for women is made from 5 meters of fabric and the only wastage is 4 little

## Fashion inspired by **Pastoralist Traditions**

### by Jogi Panghaal

October 5<sup>th</sup>, 2017

 $P {\rm astoral}$  life is defined by a constant search for food for their 'maal' or cattle. The mobility of the maldhari also defines the weight of their worldly possessions.

Light, foldable, wearable, multi purpose, recyclable, repairable, portable, endowed with possibilities of change and make over! Their objects are made using all the material

available, without causing any decisive cuts that foreclose

future options about a piece of cloth or that piece of hide. And the normal skills that a maldhari uses for making her objects is with a fold, stretch, hold, clasp, tie,

knot, wrap, stitch and sew. Hardly anything is leftover. There is just no waste!

The emergence of this 'look' is very inspiring. And I realised that when life is framed in a very tight set of circumstances, the collective intelligence of a community creates a lifestyle that is true only to its own given circumstance. Sustainability here is about the viability of the whole life form itself - the animals, soil, grass, trees, children, old .... This is the dharma of a Maldhari

My approach to developing a look for the eather collection for 'Living Lightly' came from this dharma. I feel my approach to design is that of a breeder. Make what is right, irrespective of what the market may desire, and the market will recognize it! There would always be buyers n the market who value and acknowledge the sensible, the real, or 'asal' as my artisan collaborators and co-authors called our collective collection.

"The emergence of this 'look' is very inspiring. And I realised that when life is framed in a very tight set of circumstances, the collective intelligence of a community creates a lifestyle that is true only to its own given circumstance."



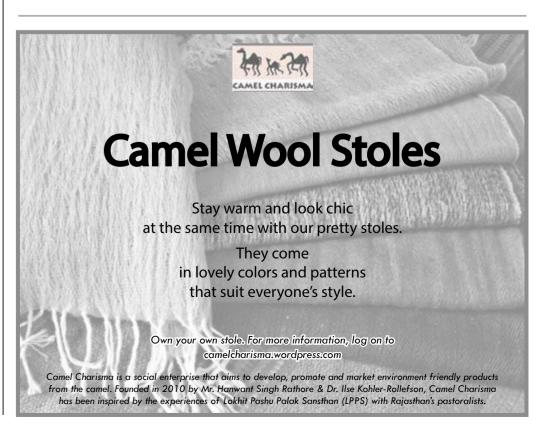
# **Pastoral Crafts**

### by Carole Douglas, Curator of Craft Narratives, Living Lightly

You ask me about pastoral craft? In my mind there is no separation between life on the land and that which we outsiders distinguish as craft - one does not exist without the other.

Many years ago I took tea with a group of camel herders out in the wildness where the wind stirs the dust and rattles the cleverly covered bottles that hang in the trees. A hand strung charpoy with turned legs held a pile of quilts and in the shade a woman was stitching dense patterns into cloth. Her home was delineated with dried reeds carefully laid out in a 'checkerboard' pattern, her hearth a circle of stones and a clay water pot, wrapped in cloth, sat squatly in the shade.

A female camel gracefully picked her way through the foliage - her milk 'protected' by an udder bag hand knotted from camel and goat yarn. Others wore girths embedded with the symbols of tradition. I have since seen men walking with their herds, drop-spindle in hand, and going about their day. It was perhaps then that I began to realise that in pastoral life there is no separation - self and object are profoundly part of the same continuum.

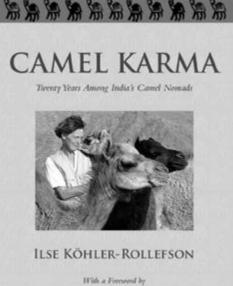


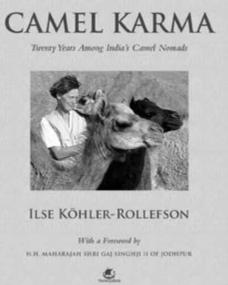
Ejar

triangles!

Photo Essay

### Camel Karma: Twenty years among India's Camel Nomads Ilse Kohler-Rollefson, Tranquebar Press, 2014

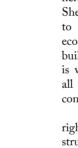




🔿 amel Karma is an engaging, first person Unarrative about a subject I hold dear to my heart. Ilse Rollefson has now spent more than twenty years living amongst the camel herding Raika pastoralists of western Rajasthan. She arrived there as a young scholar hoping to undertake doctoral research on the socioeconomics of camel husbandry. She has since built a home in Sadri town, in Pali District, and is well known amongst pastoralist communities all over the state, and amongst many pastoralist communities in other parts of the country.

### Music





used by the nomad

Indigenous women from the Shahsevan Tribal Confederacy camped in their tents in their summering grounds. They display a two-humped Bactrian camel. The Shahsevan have an ageold relationship with these camels, which have served as transport on their migratory routes for centuries. The Shahshevan believe that the camels bring blessings to their lands, which are an tant habitat of the Bactrian came



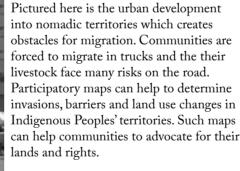
Nomadic pastoralists from the Qashqai Tribal Confederacy cross a bridge on their traditional migration route. They migrate once a year in search of new pasture for their animals. Their migration route is considered one of the longest and most difficult



How Pastoralists in Iran are Using

DURCE: CENESTA AND GLOBAL FOREST COALITION

Conserve eir Territories





Community members work on both hand-sketched and topographic maps. Through such maps, they can delineate their territories which consist of both ancestral domains and current areas. A key to success in the mapping approach is participation of all generations from the communities. Elders know best about ancestral domains, men about summering and wintering grounds, and women know more about medicinal plants and other ecological assets. It is important to include children so they can learn from their elders and fulfill their future responsibilities for conserving and defending their territories.

### October 5<sup>th</sup>, 2017

## ARTS | CULTURE | BOOKS | 5

Book Review



#### Vasant Saberwal

She has been a tireless crusader for the rights of animal keepers and animal breeders - a struggle she has structured around two core ideas: one, that animal husbandry is a more effective and sustainable means of generating land-based livelihoods in the harsh, water scarce climates of western Rajasthan than the ground-water dependent agriculture that has become common place. And, two, that pastoralists are the "keepers of animal genes" - the breeders that are responsible for developing and maintaining the hardy breeds that can survive in these harsh climates. India owes its enormous diversity of cows, buffaloes,

camels, sheep and goats to the many communities that have systematically bred these animals.

But there are many threats to a way of life that depends on being able to graze animals over large parts of the state. The biggest threat to this way of life is the continual reduction in available grazing resources - a story unfolding across the country. There are fewer fallow lands to spend the night in and resident communities, denying pastoralists access to crucial grazing lands, heavily encroach upon village common lands. Not surprisingly, pastoralists encounter an increasingly hostile farmer community while on the move.

This book is a timely reminder of why the state needs to reach out in support to these animal breeders. It is a journey of discovery for a greenhorn German scholar trying to understand the cultural norms of an oftentimes conservative community, of her attempts to engage with a bureaucracy that can be, well, obstructionist, of moments of wonder and discovery of a camel breed she had not known about, and of the simple joys of spending nights under a desert sky.

But it is also very much a journey of LPPS, an organization Ilse helped found, that attempts to halt the decline of the camel population in the state. Sate data suggest a 50% decline during the 1990s and 2000s. LPPS has undertaken a range of interventions aimed at understanding the difficulties these shepherds have faced, but at identifying new camel-linked incomes developed. A month long yatra was undertaken through western Rajasthan to raise awareness about the crisis; experiments in Jaiselmer and in Pali districts have aimed to demonstrate the potential of marketing a range of camel products, including camel milk, camel milk ice-cream, camel dung paper, and rugs and finely crafted shawls and stoles from camel hair (showcased at a high fashion fair in Paris!).

It is a remarkable, sustained engagement with Rajsathani and, more broadly, Indian, pastoralism. I have minor quibbles that should not detract from a wonderful story and a terrific read. Rajasthan has just announced the camel as its state animal, a policy outcome almost entirely attributable to Hanwant Singh's (Director LPPS) and Ilse Kohler-Rollefson's untiring efforts. There will be more battles in the future and I'm sure there are many Raika who take comfort in knowing they can bank on the efforts of these two supporters. Vasant Saberwal is the director of Center for Pastoralism A larger version of this review appeared in the March-April 2015 issue of Biblio.

### Singing the Waai

by Shabnam Virmani & Vipul Rikhi, Curators of Music and Poetry, Living Lightly

**Finnish Lapland** In 'Aatsinki,' Two Reindeer Herders Ride the Seasons

Movies

Director: Jessica Oreck Writer: Jessica Oreck Cast: Aarne Aatsinki, Lasse Aatsinki, Lauri Aatsinki, Raisa Korpela Run Time: 1h 24mir

Life's Rhythms in

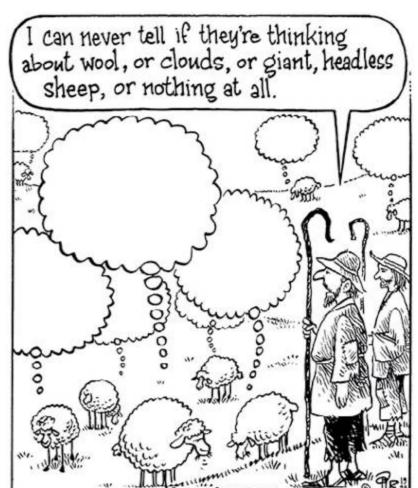
A vast herd of wild reindeer flows through winter woods, a river of dun and white spooked by the helicopter hovering overhead. From above, we follow their antlers, some soaring high into the air, others stubby and velvet-coated. The scene is so dreamily beautiful that later, when a membranous, blue-gray mass swells from a gash in the heaving abdomen of a slaughtered calf, the image feels like a slap in the face.

"Aatsinki: The Story of Arctic Cowboys' is filled with moments like this. Observing a year in the life of the brothers Aarne and Lasse Aatsinki, reindeer herders in Finnish Lapland, this challenging and mesmerizing documentary captures horror and joy with the same gorgeous dispassion.

Neither explaining the action nor commenting on it, the director, Jessica Oreck, isn't arguing a case for this dying way of life; her aloof, disciplined aesthetic remains strictly show, not tell.

Like chords in a song or phrases in a poem, certain activities — whittling wood, tagging ears, boiling water - repeat with ceremonious solemnity, establishing a vital rhythm that's emphasized by the film's naturalistic soundtrack. The Aatsinki brothers don't say much, but their grunting, snuffling animals, as well as the roar of their snowmobiles, could not speak more eloquently to a people frozen between tradition and modernity.

by Jeannette Catsoulis for in New York Times ttps://www.nytimes.com/2014/01/24/movies/in-aatsinkitwo-reindeer-herders-ride-the-seasons.html



RIZARROCOMICS.CO

Sumar Kada Jat and Mitha Khan Jat are cousins who live in a small village called Bagadia in Kutch. They belong to the cattle-herding Jat community and seem to be the last exponents of the waai musical form in India.

The waai hits you in the gut. If one were to imagine a form that might best capture a conversation between seeker and God, between lover and elusive Beloved, this might be it. No weary preliminaries, no pretty embellishments, no polite barriers, no delicate overtures, no middlemen to broker this co The waai is a kind of a visceral cry, a weeping, a lament, a communion, a trance.

The vibrations from their damboors overpower our bodies as we listen. Waai singing uses two kinds of voices - the thick (gauro) and the thin (sanho). The 'thick' is the normal male pitch of singing, but nothing prepares us for the 'thin'. A startling, high-pitched cry of longing for the beloved. It is this falsetto sanho that strikes the chord of separation - for it is a kind of wail, The answer arises, beautifully, in a Latif poem: or a loolaat as Abdullah-bhai terms it – a baby's howl for its mother. Full-grown men weeping in the voice of a child..

They seem to enter another dimension as they sing, accessing some altered state of reality, clearly far removed from the world of show and tell, of stage and singer, of technique and acclaim.

There is a trembling within me when I sing Shah's waais, says Sumar Kaka. They're not poems, they are daggers. They can cut you up and cleave you into two, he says. But then, you wonder: why should he return, again and again, to imperil himself on this blade?

"If one were to imagine a form that might best capture a conversation between seeker and God, between lover and elusive Beloved, this might be it"

I'm in love With one Who carries daggers

In this field of love I press onward

My head's on the chopping-block Now slaughter me Beloved



## **Paneer and the Origin** of Cheese By Aditya Raghavan

 $\mathbf{F}^{\mathrm{ew}}$  think of paneer as a cheese. Hot, curdled milk masses — the proteins and fats texturing — are pressed together in a cloth producing a smooth white solid that almost everybody in India connects with at some level. I remember the first time, I bought 'real' paneer from the Punjab Sind Paneer Centre at Breach Candy in Mumbai. I was an impatient teenager eagerly taking home a block of freshly-cut paneer, to make a quixotic version of makhanwala using kasuri methi and cashew nut paste. The makhanwala turned out pretty average, but the paneer was on point.

In the cheese world, paneer and chhena are classified as direct acid-and-heat coagulated cheeses. Milk is deliberately heated and split, with the action of some acidic ingredient, into curds and whey. This is different from the world of other well known cheeses, like Cheddar or Parmigiano-Reggiano, that are formed by using rennet to coagulate milk into a solid.

#### What's the difference?

What's been brewing of late is the fight over the origin of cheese in India. Back in August 2015, the Odisha government applied for a Geographical Identification (GI) tag for rasgullas, which soon turned into a fight over facts between historians in Odisha and West Bengal. Of course, in only a matter of days, the West Bengal government challenged Odisha's claim over their beloved rasgulla. Shoaib Daniyal's Scroll article carefully explained how the Portuguese brought chhena to West Bengal, and how Nobin Chandra Das developed the mighty rasgulla from chhena.

But paneer and chhena are different; conflating their origins and giving the Portuguese credit for bringing cheese to India is quite a leap.

#### The yogurt factor

Paneer is a refined product that was developed in northwest India through knowledge from nomadic pastoralists. In Punjab, it is made by splitting hot milk with vogurt or buttermilk. Some people also save lactose rich whey from a previous paneer batch, letting it sour for a week or so before using it as a splitting agent. The use of fermented dairy to split milk and make paneer is a crucial historical point. Lactic acid and other flavour compounds formed during the souring process also lend a richer dairy flavour. This distinct zest cannot be acquired from using vinegar or lemon juice.

Cheese in every culture exists because it is a form of preserved milk. There is a continuous history of cheesemaking throughout Central Asia. Nomadic dairy tribes have been living in these regions for millennia. Had it not been for fermented and preserved dairy products, their efforts of rearing animals for milk would have been futile.

"Cheese in every culture exists because it is a form of preserved milk"

A 2013 article in the respected, peer-reviewed science journal Nature says that farming and cattle-herding started some 11,000 years ago in the Middle East, a time when lactose was toxic to adult humans; people would ferment milk to make it edible - the first form of yogurt or cheese known to exist

The Pashtuns make a cheese called kadchgall where yogurt is sun dried into cakes. This is similar to kashk found in Turkic countries as well as parts of Mongolia. These cheeses came from a need to preserve fermented milk by drying it out. While they are not acid-coagulated, their existence explains how knowledge of preservation prevailed in these cultures.

#### Churning butter from yogurt

In Central Asia and India, it has always been a common practice to separate butter directly from yogurt. It dates back to mythological stories of a young Krishna stealing butter freshly churned out of yogurt

"A 2013 article says that farming and cattle-herding started some 11,000 years ago in the Middle East, a time when lactose was toxic to adult humans; people would ferment milk to make it edible – the first form of yogurt or cheese known to

exist"



### **Camel Milk Chocolates**



Aadvik's Handmade Camel Milk Chocolates represent the refined elegance. These exquisite assorted chocolates, available for the first tim in India, will leave you mesmerized. Now available in Butterscotch, Almonds and Pan flavours.

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### How to Make Paneer

#### Ingredients:

1 L buffalo milk 1/2 kg old curd at room temperature (preferably buffalo milk curd) Special tools: Muslin cloth Optional: 1/2 kg weight, two cutting boards

- Bring fresh buffalo milk to a boil. Once the milk begins to rise, turn gas off and immediately add all the yogurt. Stir for 20 – 30 seconds
- Strain through a muslin cloth, tie into a tight ball and hold with pressure for about 5 minutes. Paneer is ready when the ball does not stick to the muslin cloth. Takes about five minutes of holding tightly
- Alternatively, strain paneer through muslin cloth. Fold and tie into a bag so no paneer can escape. Press for five minutes between two cutting boards and adding about 1/2 kg weight. Store the paneer in water so that it does not dry.
- Simply toss fresh cubes of paneer in a little bit of salt. Add spices, if preferred.



"From a taste point of view, none of the buttermilk cheeses are as delicious as a freshly pressed block of paneer; they have a tangy bite thanks to the lactic acid in them, but lack the richness of a full-fat cheese'



While there is no mythological account of Krishna eating paneer, pastoralists in Iran and Afghanistan had been noshing on similar products made out of buttermilk: kask, korut and kama are all examples of Iranian pastoral cheeses. Techniques vary, but for the most part, sour buttermilk is heated till it splits into curds and whey. The curds are then either eaten soft or pressed into or dried into solid cakes. The technique of heating and coagulating curds gives credence to the idea that cheeses have existed in the greater Indian context for thousands of years.

We further know that some version of these cheeses made their way through the Northwest frontier to the Himalayas. Chhurpi - made from buttermilk in an identical manner - is found all along the continental divide, specifically in parts of Ladakh and Himachal Pradesh, Nepal, Sikkim, and Bhutan. The national dish of Bhutan, the iconic ema datshi (a stew of chillis and cheese) employs this variant of cheese.

From a taste point of view, none of the buttermilk cheeses are as delicious as a freshly pressed block of paneer; they have a tangy bite thanks to the lactic acid in them, but lack the richness of a full-fat cheese.

#### Paneer vs Chhena

Chhena is rightly credited as the cheese brought by the Portuguese to India. Their love for fresh, soft cheese influenced Bengali dairy culture since the 1500s. On the other hand, paneer evolved as a result of direct influence of Central Asian and northwest Indian pastoral communities. Perhaps through religious exclusion, or just the idea that split milk is a taboo, it may have not been widespread.

According to the book Technology of Indian Milk Products, texts from the Kushan period mention "the use of solid portion from the mixture of warm milk and curds" to feed warriors, while the thin liquid (whey) would be distributed among the poor people. Given the Kushans period of rule over Central Asia and India, this is quite likely to be a correct interpretation.

Digging deeper, there are other remote cheeses: Kalari for instance, made by the semi-nomadic Gujjars in Kashmir is a 'stretched curd' cheese, similar to mozzarella. The Bai people in Yunnan make rushan, another stringy cheese, stretched using long chopsticks.

These mozzarella-like cheeses, made through the coagulation of milk proteins with live enzymes, as opposed to using acid and heat, reveal a far more complex pastoral cheese history both in the subcontinent and the surrounding regions.

A longer version of this article appeared in The Hindu http://www.thehindu.com/news/cities/mumbai/Paneerand-the-origin-of-cheese-in-India/article14516958.ece



Aditya Raghavan is a physicist urned cheesemake

desert.

### October 5<sup>th</sup>, 2017

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Tarachand Negi had just heard some disturbing news. L The ice bridge he normally used to cross the rushing stream to reach his pasture had melted. He and his group could wade through the strong icy current but his sheep and goats would not make it. If he couldn't cross, the tenday trek over the 4,900-metre-high Bhabha Pass and the loss of a dozen livestock along the way would have been for nothing

With bowed head, Negi strode towards Sagnam village in Pin Valley, Himachal Pradesh. A leather jacket and tweed pants kept him warm against the chilly wind blowing down from snow-capped mountains. His green and grey Kinnauri thepang cap was jammed over his head, exposing his deeply wrinkled face to the sun.

Sagnam villagers held his fate in their hands. Would they give him permission to drive his flock through the village's fields and the bridge across the River Pin? He was pessimistic. The culprit that put him in this predicament was climate change.

Although the treeless landscape looked brown in premonsoon June, livestock thrived on the grasses, herbs, and shrubs at this dry cold altitude. Once the monsoon receded from Kinnaur and autumn approached Spiti, shepherds would lead their flocks back over the mountains. Villagers and shepherds say the tradition was centuries old. In return for pastures, shepherds paid the village a nominal sum of money.

This tradition is now under threat from climate change. Every year, more ice bridges disappear. The winter of 2015 was especially dry with little snowfall. One shepherd said instead of two feet, barely two inches of snow fell. These were not typical aberrations in the weather. The shepherds' observations are borne out by glaciologists of the Jawaharlal Nehru University, whose studies indicate a 13% reduction in Spiti's glaciers.

It was dark when the village representative, the numberdar, walked through the alleys, beating a drum and summoning everyone to a meeting. Tarachand, anxious to get a quick approval, knocked on every door to humbly request people to attend. Families were gathered around the warmth of the tandoor as dinner cooked, eagerly waiting for the meal of the day. Would the men tear themselves away to attend the meeting?

One by one, they wandered out of their homes into the cold night. At half past 8, about 15 men gathered in a narrow alley in the middle of the village and Tarachand made his case. "If you don't allow me passage, I'll have to return home,"he pleaded

Tarachand's flock had grazed and browsed in the forest surrounding their home for a couple of months before the journey to their high summer pastures. Although there was enough forage in Rupi, the animals didn't thrive in the monsoon wetness. They fell sick easily and the water-swollen vegetation didn't provide enough nutrition. Shepherds escaped the monsoon to the cold

The highly-prized Chumurti horses of Pin Valley grazed in the same alpine meadows. Displeased villagers accused the shepherds of mismanaging the pastures. While the shepherds moved on to more productive

## **How Climate Change is Affecting an Old Pastoral Tradition in Spiti**



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fruits were a luxury. They ate frugal meals even as their animals gained fat. They were exhausted.

A few sympathetic villagers advised a dejected Tarachand to climb upstream. There might be an ice bridge farther up. Left with no choice except turning back, he took their advice. Climbing up the mountain would add several kilometres more to his two-day march o reach his pasture.

It was early afternoon when they found an ice bridge. Goats streamed across first, followed by sheep and the shepherds. Tarachand driving four cargo-laden donkeys brought up the rear. He had made it this time.

This story was supported by grants from the Foundation for Ecological Security http://fes.org.in/ and Earth Journalism Network http://earthjournalism.net/. An expanded version of this article was originally published on TheWire.in" and can be found at https:// thewire.in/73427/shepherds-climate-glaciers-spiti



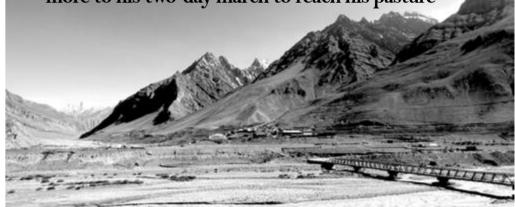
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areas, the villagers were left with the degraded land. These problems reared their heads at the meeting to decide Tarachand's fate.

After Tarachand made his appeal and stepped aside, the villagers debated whether to give him access through the village. "Take pity on him," one said, "and let him go through. It's not his fault that the ice bridge melted." Others nodded their heads in agreement. "These shepherds don't obey any of our rules," countered another. "They bring 1,500 animals and say they have brought only 500. Enough is enough." The rest were swayed by this argument also. Finally, at 3 a.m., they reached a consensus. They refused permission. He became the scapegoat for their dissatisfaction with the Kinnauri shepherds.

Tarachand and his four fellow shepherds had trekked about 10 kilometres a day for 10 days, often eating no more than a single meal. If a dislodged rock hurtled down the slope and hit an animal, they had meat. Otherwise, their fare was a pile of rice or a stack of chappatis with watery kadi made from sheep or goat milk. Occasionally, potatoes and dhal livened up the meal. Vegetables and

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Kachchhi-Sindhi **Horse Gets Recongnised as** the 7<sup>th</sup> Indian **Breed of** Horses

The Kutchi-Sindhi horse, which is known for its distinct canter got officially recognised as the seventh breed of horses in India by National Bureau of Animal Genetic Resources (NBAGR). This recongition came through with the efforts of the community organisation, Ram Rahim Kachchhi-Sindhi Ashvapalak Sahkari Mandali, and Kutch based NGO Sahjeevan.

CURATOR'S NOTE 8 





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## Lead Curator's Note

Sushma lyengar

'A roti if you don't turn, will burn. Horse tied to a place will loose its pace, A leaf stuck to the soil will rot, Knowledge that does not travel will shrivel so we stay moving with our herds...'

It is the powerful simplicity of what Jaisingkaka said to me some years ago that carried the seed for this exhibition. A Rabari from Kutch, he has herded his animals for more than 45 years, walking more than 3000 kms each year, across India's belly from the western tip of India to the edges of Orissa. Like him, millions of pastoralists roam the ever shrinking pastures of India, even as they continue to tread lightly on this land. And they carry with them compelling tales of living and herding, even as everything seems to be working against them! These stories too needed to move on and touch many of our settled and frenetic lives.

We will be surprised to know how pastoralism intersects our lives - our food, our craft, our cultural landscape, through the many invisible gifts that we receive from them, everyday. And so this exhibition will travel, gather narratives, shed some, and hopefully regenerate the 'commons' in our lives. Through this, I hope all of us can begin a conversation on why our futures are so closely woven with the future of our grasslands, the pastoralists and our indigenous livestock breeds.

They have given expression to the fluidity of their syncretic lives through a fusion of testimonies, oral archives, music and poetic forms, crafted narratives, film exhibits and performances. The pastoralists have spoken through many artistes, scientists, and practitioners across India and abroad who have grazed across the landscape of this exhibition, and gifted it with their extraordinary talents, skills and knowledge. This, my friends, is not a past we celebrate. It is a present that lives alongside us. It is a future that will carry all of us through as we grapple with the complex world we have created for ourselves as we sit heavily on this land!















