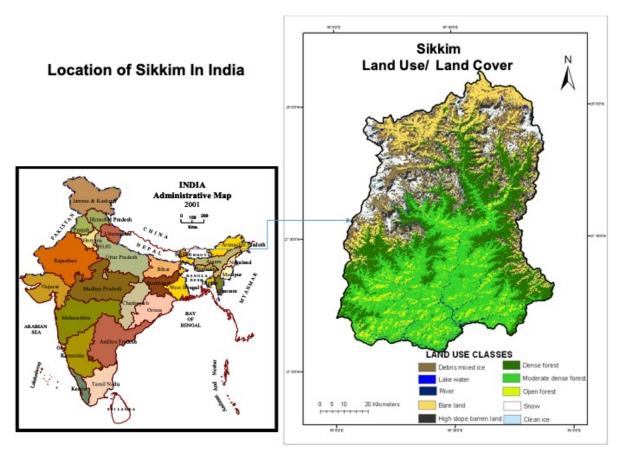
## Beasts of Ruptured Geographies: Yak herding in the Sikkim Himalaya.

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With dramatic changes in altitude, climate, and vegetation etc. over very small distances, the Sikkim Himalayan highlands have been a theatre of distinctive physical as well as socioecological processes. These despite being not densely populated have been the conduit of trans-ecological exchanges over centuries, thus, registering its share of seasonal foot-falls. Consequently, making this fragile mountain ecosystem an area of humane wilderness rather than an absolute wildscape which has been significant but interfered.

This paper is an attempt to trace migrating memories with the study of space-relation by looking at the Himalayan borderland as homeland. The study incorporates participant observation to snow-ball sampling where yaks and yak-herders are the foci. It is an inquiry into how political events in the area transformed both human and non-human dimensions of the borderland where Yaks remained the symbolic but the (among) the most affected creature.



## Yak herding in Sikkim

Pastoralism is understood as one of the main socio-economic strategies adopted by human in the cold, dry, and drought-prone region where the agricultural activities are not productive enough to sustain human life. The pastoralist people possess the ability to transform the

extensive marginal rangelands into economically productive areas. In a simplified account, both human and animals together have successfully adapted to a harsh environment made possible through a common mutualistic relationship. Human who routinely interact with their non-human associates and the animals that constantly rely upon human care and protections gradually develop a mutual relationship that allows both to succeed under uncertain ecological settings. Pastoralism in Sikkim Himalaya dates back to more than a century with various herd composition ranging from Yak, Sheep, and cattle prominently reared by different communities. Many traditional communities are strongly associated with the type of animals they breed. Among all other, Yak rearing activities are mostly carried out by the *Dokpas*<sup>1</sup>, the herding community of Tibetan origin, along with the people belonging to other ethnic communities of Sikkim primarily hired by the Lachenpas and the Lachungpas.

In Sikkim, Yak rearing is carried out in two different ways each depending upon two different breeds present in Sikkim. The one associated with the up migration during winter season is named as *phe-noh*, the Tibetan breed and the other associated with the down migration during winter season is termed as *Lho-noh/ Haaji*, the Bhutanese breed. These Yaks differs in their ability to adapt in cold environment and thus possibly leads to the dissimilar pattern of seasonal movements. *Phe-noh* are mostly confined within Lhonak, Lashar and Lachen valley of North Sikkim while *Haaji* Yaks are distributed mainly in Lachung valley of North Sikkim and highlands of Gnathang Valley, East Sikkim, and sub-alpine region of West Sikkim. The herders terms female Yak specially as '*chauri*' and '*Noh*' and male Yak as '*De*' or simply Yak. Yak pastoralism with times was enmeshed into the pastoralists landscape of Sikkim and the tradition being passed down to numerous generations that are still being safeguarded through continuous practice.

Yak rearing is considered one of the most important ways of sustenance. The Yak populations in Sikkim are less as compared to other section of the nation and are scattered over a very isolated region as shown in table 1 (Below).

District	Yak Population					
	1997	1987	2007	2009	2012	
North	2,340	4,865	3,877	2,934	3710	
East	1,337	40	1,449	790	2369	
West	278	441	1,142	489	141	
Total	3,955	5,346	6,479	4,213	6,220	

Table 1.District-wise distribution of Yak in Sikkim

Source: Livestock census report

<sup>&</sup>lt;sup>1</sup>*Dokpas*; meaning 'high altitude people' historically are nomads associated with the Yak and sheep rearing practices.

The pastoral landscape of Sikkim Himalaya evolved as one of the most remarkable landscape wherein relationship between herders, herds and the environment are played out significantly. The structured landscape traces its history way back to more than a centuries with humans and animals constantly involving to construct and sustain their lifeworld. The landscape featured by rugged topography and uncertain climatic conditions with limited arable land is a reserviour to extensive grasslands supporting the herds of animals and further facilitating the pastoralism practice. The landscape lies in the Lhonak Valley in the northern flank of Sikkim adjoining the border of Tibetan Autonomous Region and is home to the transhumance seminomadic community Dokpas and their herd of Yaks. The Dokpas and the Yaks co-existed together in the valley, adapted to seasonal changes, sculpted the pathways through everyday mobility and webbed the network of activities through which they are bought together and dwell therein. The constant interaction between herders, herds and their given environment the valley have emerged as pastoralists landscape embodying the entire hierarchy of the temporal and multiple rythms. The tradition of rearing Yak is deeply rooted in *Dokpas* way of life and their ancestors who practiced and passed it down to the generations that are being carried forward as a living memory. The practice had rich cuture until it suffered a decline due to closure of border between India and China.

Pastoralism in Sikkim Himalaya came to the fore as the pastoral community and their herds undertakes transhumance voyage and moves along the pathways connecting their traditional places through a multiple rhythm including walking, resting, driving the herds and foraging. These landscapes also evolved as an embodied form of 'taskscape' that comes into being through local activities over period of time. The sphere of the tasks is not limited to physical labour but extends to their cognitive sphere as well. All those tasks constitutes the medium of interactions taking place between the *Dokpas* and the yaks. These landscapes reflects the dwelling achievements of pastorlists community and their animals; mostly the Yaks and Sheep. Yaks are the flagship species of the highlands and important asset to the people associated with them and the paper will outline the relationship shared between these two beings within a given environment and focus specifically upon their role in constructing pastoral landscape of Sikkim Himalaya.

The *Dokpas* are known to be associated with the traditional Yak herding practices in the highlands of Sikkim Himalaya that are carved into the pastoral landscapes through a set of practice achieved over daily interaction between herders and their herds over span of times. These landscapes hold the imprints of primitive contacts of the *Dokpas* and their experience with Yaks and the Yaks with their human partners. The set of practice reflects in *Dokpas* daily involement in managing Yaks and their herding practices while Yaks as their part responds to it through providing range of outputs to the *Dokpas* for their sustenance. The functioning of pastoral landscape thus constitute "the network of inter-relationships between multiple rhythms" performed multisensually (Pardoel 2015 p, 66).

The pastorlists landscape is constituted of lively and complex Networks enmeshed within the continuous involvement of herders, their animals and the environment. The highlands of Sikkim are carved into the pastoral landscape through an embodied engagement of the *Dokpas* and the Yaks and their environment together for more than a century. They together

come 'into being' through assemblage of practices giving way to lively networks incorporated within *Dokpas* routined activities, their seasonal mobility, and the pathways and role of the Yaks. The *Dokpas* way of life, their sphere of acivities ranging from attending Yaks, milking and processing dairy products, deciding seasonal movements, festivals, rituals and their mid day gathering etc. creates a rythmeic flow moving along the network while Yaks mould the pastures, forage upon it, provide subsistence to the *Dokpas* and maintain the ecological balance of the landscape constitute the part of the network that shape the pastoralists landscape. All these sets of activities are determined by the ecological settings that facilitates the pastoral activities and seasonal movement that are vital for the *Dokpas*, Yaks and the whole pastoral system as well.

The household and the individuals within was in motion over time. Mobility being an important essence of the pastorlism, *Dokpas* and Yaks follows the traditional paths to traverse during their seasonal movements. The path carved during ancient transhumance journeys and the non-static system holds the experience and memories of age-old pastorlaists practice, facilitate mobile form of dwelling where herders and the herds move and grow along these paths, they dwell within these paths. The paths connects the traditional places; the storehouse of prehistoric memories and an *attributed events that comes into presence* through herding practices, that constitute the network that is fabricated and enmeshed in the pastoralists landscape.

### The Dokpas, Yak herds and Environment

*Dokpas* are the semi-nomadic community living in the highlands of Sikkim Himalaya associated with subsistence practices of rearing Yaks and sheep. They are the inhibitant of the highlands which are bound with political, social and often, military decision. They are associated with an extensive knowledge and skill to handle Yaks, the flagship animal of highlands that facilitates in sustaining the ecological balance of highland environments. Historically, the *Dokpas* are believed to be the nomads of the southern part of the Tibet who practied transboundary seasonal movements in order to access pastures of both Tibet as well as Sikkim. They hailed from southern Tibet and were often referred to as *Lhon Dokpas*, meaning the 'southern herders' by the adjacent local community Lachenpas. Older tradition of relatively self-contained yak rearing tradition in Sikkim thus has a age old connections with those *Lhon Dokpas* who shared the mutual transboundary relationship with adjacent community.



Yaks as Beast of Burden in the Kanchendzonga Wildlfe Reserve, Sikkim

Not much is to be found whenever their history and population is being studied wherein their living history has been distorted with the passing time, greater the period greater comes the distortion. The larger the pile of rubble you leave the larger is your place in the historical record, the more mobile and dispersed societies regardless of their strong networks, they are relatively invisible in the historical records because they spread their debris more widely (Scout, 2009). They have their own interest in embllishing the glory, continuity and the beneficiaries of their ancestors. However, the seasonal trans-boundary movement of *Dokpas* from both Tibetan Autonomous Region and Sikkim were able to maintain the Yak rearing tradition as well as their socio-cultural aspects. Later with the continuos seasonal movements of the *Lhon Dokpas* to Sikkim few Lachenpa household invested their interests in Yak rearing and as a result many of them began to own Yak and Sheep from the *LhonDokpas* as an agropastoralists. Most of the Lachenpas bought Yak from these *Dokpas* and would usually assign them to look after it on the basis of lease agreement. Even today the same tradition is being maintained and around one third of the Yaks most *Dokpas* rears belongs to the low-lying community Lachenpas.

*Dokpas* exhibits a remarkable way of living and shares an unusual bonds with Yaks that occupies an important position in their life. These bonds are established through their everyday interaction and lived experience with Yaks thereby leading to the establishmen of intimate relationship between them. They are people adhered to the buddhist way of teaching who usually percieve animals as sentinent beings where the intentional killing and sacrificing

animals are forbidden. Yaks are their cultural symbols and holds an important place in the religious aspects of the *Dokpas* and also a significant social manifestation. They usually refer male Yak as *De* and the female Yak as *Noah* but *Dokpas* invariably refer male yak as 'Yak' while female Yak as *Chauri*, and thus it seems hilarious to ask a *Dokpa* about the milk yeild of their 'Yak'. However, the paper will use the term 'Yak' to refer both the male as well as female simultaneously while occasionaly *De* to refer to male Yak while the female will be referred to as *Chauri*.

The relationship shared by the *Dokpas* and the Yaks reflects their close association with eachother. Their practice of life is shaped through their everyday interactions with the Yaks grounded on activities such as milking, attending, caring and sometimes guiding the herds. Their life revolves around Yak and the maximum possible output they can acquire from it and the time management and activities follows a single routine repeated everyday.

The *Dokpas* lives are spent in close company with Yaks and are exposed to their task-based complexities where Yaks from sustaining *Dokpas* livelihood also offers a cultural significance to the *Dokpas* and their landscape. *Chauri* occupies an eminent place in *Dokpas* traditional livelihood and are refered to as *Zomphala* or goddess of wealth as it contributes larger to their wealth or a *Nor. Chauri*'s milk and its by-products solely contributes to 95 percent of the *Dokpas* income while remaining 5 percent is contributed by *De* basically used as pack animal and employed to transport goods across rugged terrain. Sometimes the intimacy between the *Dokpas* are frequently heard referring themselves as Yaks and to understand them they have to "think like a Yak" and during the course the *Dokpas* close enagements lead Yaks to act they way their partner wants them to. The relationship is based on the mutual understandings giving suffice space to interact and to co-exists within a given environment.

## The Herds

The animals are not just another being to reside along with the humans but are an integral part of the landscape that qualify it to become the pastoralists landscape. The Yaks are the flagship species of Sikkimese highlands that have adapted to harsh environment along with their human partners the *Dokpas*. This species have made the socio-ecological adaptation of the *Dokpas* possible throughout the history and are still continuing to do so. The herds are regulated in appropriate regions taking into acount the environment suitable for their adaptaion and thus are distributed in the high-altitude regions with low temperature of below minus  $13^{\circ}$  C along with the vast range of pastures. The highlands of Sikkim Himalaya is home to two types of Yak breed mainly the Tibetan or *Lho No* and the Bhutanese breed or *Phe No* while both of them are distinct in terms of physical adaptation to a particular environment. These breeds differs in term of their seasonal movements as former moves to the higher altitude during winter while the later moves to the lower altitude during winter. The valleys of Lhonak and Lashar homes to Tibeten breed of yak while The Bhutanese breeds are mostly distributed among the valleys of lachung.

The herds knows the landscape through its movements and feels it through their daily interactions. With the daily contacts they develop trerritorial orientation and memory of landscape and percieves those regions where they can obtain high amount of their feed. The *Dokpas* after milking drives them to graze in nearby pastures and the herd marches along the fixed path until they reach their fixed grazing site. This embodied capacity of their territorial orientation and discipline cultivated the nub of trust that their herder could place upon them. The herders loads all the necessary equipments on the back of Yaks during the seasonal movement and allow them to lead the path to their destined camp while the herders follow them. With trust comes the responsibility and a role of herd leader or a *Keri*, is assigned to a *Di* who leads the herd. Along with the herders, the trust is also established and maintained within the herd and the role of *Keri* becomes much more extensive that along with leading the path also has toS ensure the right path it is leading while rest of the herd follows him till the end. The journey is thus, a disciplined action forged within the established trust between *Keri*, herd and the herders.

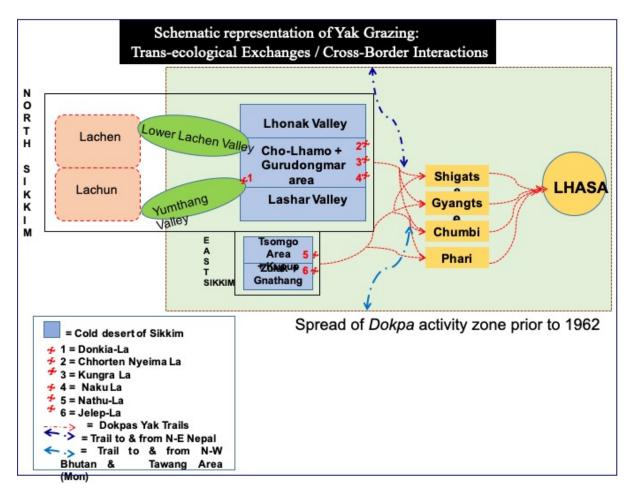
The trust not only functions between herds and the herders but also within the herds, The yaks grazes upon particular pasture mostly for three days and then possibly shifts to other ground where the routine continues. Most often the herds do not mix up while grazing rather they choose different patches. The herds are very specific about their territorial grazing patches and seldomly allows member of other herds to intrude into it. They warns the intruders through intense grunting and sometime they come up to fight in order to claim the dominance. The territorial sensibilites of Yaks allows herds to maintain their possible inhabitation.

The rapport between herders and the herds are very crucial to sustain life in harsh ecological settings conditioned with rugged terrain and low environmental affordances. Continuous involvement with the herds mobilises and strengthens the bond between the herders, the herd and their environment. The herders' main motive is the wellbeing of the herds which they try to achieve through getting closer and know the herds intimately for exmaple the age of animal is calculated according to the natural growth of rings on its horn. As per them the horns of yearlings and new born calves tends to be smoother in comparison to their elder counterparts and more the apearance of the more will be the age. The Dokpas have their own taxonomy to refer Yaks passing through different biological successions as shown below.

#### **Swathes of the Yaks:**

Movement is determined by the availability of abundant grasses and water that regulates the transhumance performance of the *Dokpas* and Yaks. Their seasonal camp changes on the basis of these affordances of the environment, which supposedly fuels the functioning of the pastoral activities. These camps have their own relevance as far as herding activities are concerned and operates in traditional places like Kora La, Naku, Seling and Muguthang. These places are central elements to the herders and their Yak herd because these places act as an ideal ground to sustain the herds during climatic uncertainities and are connected through the parallel practice associated with Yak rearing activites. These places are traditional in the sense that it is made up constant experiences and herding memories of the

herders and the herds and recreating it through their everyday participation and constant interactions. These valleys experience short growing period for four months during summer, and supply ample amount of feeds to the herds while the *Dokpas* engages in obtaining the possible amount of products from their herds. While with the approaching winter the *Dokpas* travel to their winter camp in Muguthang, as the place recieves huge amount of snowfall, the routined activities of the herders come to halt for certain period of months and again continuous after snowmelts accompanied by the warm summer.



While dwelling together the power of control cannot be assigned to a single partner rather they both cooperate and co-exists together. Both animals and human beings have a power to exert authority and influence over one another and is menifested when the herds tend to shift their grazing ground after they sense the shortfall of grasses due to limited grazing resources restricted by short growing season and gradually set themselves on the march to other fresh pastures, and the *Dokpas* follows them. The movement is initiated by the herds giving herders the signal of shifting their dwelling to places with more fresh grasses. This way Yaks foraging behaviour accomodates the collective will of the *Dokpas* to move along with them in search of new places which is again established as the "settings for social rootedness and landscape continuity" (Agnew 2011). The *Dokpas* again engage in building the pastoral lifeworlds through constant involvement with their herds. These exchange of gesture that flows between herder and the herds tends to deepen the relationship between them and enable effective dwellings.

The shifting of the traditional grazing ground involves a succesive process. The *Dokpas* nowdays have a parmanent homestead to settle following their seasonal migration. Unlike past, they have now began to lead a sedentary life rather than shift their homestead. Earlier where they had to carry their Yak-hair tent along with other household equipments, Yaks are now required only to carry provender, few clothes for shelter and required utensils to the readymade camps.

## **Daily rythms**

Since both the *Dokpas* and the Yaks have shared their spaces and their everyday intractions have facilitated the understanding of any complexity that occurs between them and the gradual development of attachments between the Dokpas and the Yaks tends to reflect. In order to develope the attachments the role of caregivers are an important aspects and they shows a strong connection and attachments with Yaks and readily assign emotions to them. The naming of the yaks reflects the Dokpas atunement to them and through it they are able to give them individualised identity and brings them into human circle. Each yaks are given personal names according to their appearences such as colour, body structures and birth marks and most of them reponds to the call. Names are more than just 'easy terms of reference', it is a tool that create an emotional experience and connections to the animals that can change the way animals are regarded (Messenger, 2014). Further naming is an act of language providing a "techhnique for knowing"... representing and percieving things, and also a powerful means of control (Borkfelt, 2011). Dokpas exerts their power and control the behaviour of Yaks through calling their name and warning them specially seen during the time of milking Yaks when they become impatient trying to move around, kick and hold their milk. The *Dokpas* act through calling out their names to pacify the animal, the name simply act as a tool to calm down the animal and to alter the motive and actions as well.

Further, the attunements also comes to the fore through the long established relationship between them. For instance, while grazing the herds of Yaks belonging to different *Dokpa* household tends to mix together, which seems rather a difficult task to identify by a mere spectator but for *Dokpas* it might not be of grave concern as they can easily recognize their herds amongts the herds belonging to other household. The *Dokpas* link this accuracy of identifying the herds to their prolonged involvement with the yaks, with whom they have shared space and continue to do so. While Yak as their part can differentiate between the owners and the non-owners, they identify the person handling them for years but avoid the stranger who approaches near them as much as possible. This behaviour is an outcome of continous interactions between the Dokpas and their Yaks with eachother for long time.

Pastoralism could not function untill there exists better understandings and attentive attunements between herders and the herds. *Dokpas* are closely accustomed with them and can read and track their behaviour. They makes an effort to understand not just the action of the herd but also their immidiate sorroundings. When Yak gets angry and threatened their

eyes turns red with ears slightly pinned back to their neck similarly, horning the ground and holding their tails up are often seen as a component of threat display. Similarly, Yaks hang out their toung in summer and submrge themselves in water to reduce heat stress. These changes in behviour usualy occurs due to intense heat changes, first lactation period, out of fear and sometimes when strangers approaches. While driving herd to and from the pastures, the Dokpas guide the herd through continuous auditory display such as whistling, shouting, calling the names and often by slinging *Horto*, a traiditional slingshot on hearing of crackly sound of which, they readily direct themselves to the intended place.

# **Cultural Symbolism**

The *Tse-Yak* is the one that illustrate the strong uphold of yak in their sacred religious practice *Tse-Thar*. *Tse-Thar* is the traditional ritual of the *Dokpas* where a Yak is assigned for a religious purpose and are assigned to a particular diety for the wellbeing of the household members. Further, the another religious practice *Dzu* also requires Yak to be sacrifice without killing to a particular diety where they believe the diety to enter the body of animal. The divine essence in them must be revered and honoured likewise they are regarded as sacred and can neither be killed nor eaten. This practice have gained Yak a special position in the cultural life of the *Dokpas*. *Dokpas* do not practice the sacrificial killing of Yaks rather the animals are integral part of their culture that holds on to setting the animals free. There are however, times where their commitments and beliefs decouples at times with their motivations and actions with few practices that seems to define buddhism in some context comes into questions such as slaughtering of Yaks, consuming their meat etc. and such questions sometimes seems complicated to be answered but possibly in the case of *Dokpas* it simply follows the requirement of their living.

## Economic asset to the Dokpas

The grassland of Sikkim Himalaya is characterised by rugged as well as less suitable agricultural region as compared to the lowlands. The people surviving in such region traditionally had animals as their sole source of livelihood. They relied on their animals for meat, milk and other by-products which gave them their main income. The annual income of the herders in the area mostly varies from 90,000 to 1,50,000 Indian National Rupees depending on the herd size or the number of milch Yaks.

Fat	Solids (Non-	Protien	Lactose	Calcium	Physiological
(g/100g)	fat)	(nx6.38)	(Anhydrous)		energy
7.00	10.90	5.20	4.60	-	100

Source: Small-scale dairy farming manual, (FAO, 1993)

Milk is an important primary product for the *Dokpas* and is processed into other essential byproducts such as butter, cheese and other fermented milk products. Among other products, *Churpi* or a hard cheese is the main contributer of income for the *Dokpas*. Around 80 percent of the income is obtained through *Churpi* which has been able to receive local as well as commercial popularity. Apart from *Churpi*, Yak tail and wool are supplied but in quite a marginal quantity.

Apart from *Churpi* most of the products they avail are for their own consumption. The products are brought to the market once in a year moslty during September and October for the reason that the dairy production is possible only for the four months from May to September. The herdsmen supply their pastoral products to a contractor who takes the product from herdsmen and supply it to the local market. The product reaches the town through third dealer (local shopkeepers) or sometimes through the contractor himself. Each string costs 150-200 rupees when they are sold to the contractors but by the time they reach market they costs 350 rupees per strings. Each household supplies 1000-1500 strings of hard cheese at a time and are enough numbers to fetch them good amount of income. Apart from *Churpi*, butter and Yak fibre are other important products that are being sold in the market.

The pastoral landscape of Sikkim Himalya lies in a disputed portion of Sino-Indian border immidiately placing them within a security zones with the Indian militaries camped to secure the border. The region had a rugged and inaccessible pathways, the male Yak functioned as a beast of burden locally called as *Ya* and were used to carry and transport the goods across the rugged terrain guided mainly by the *Yakpa*, the person assigned mainly for directing the herds of pack animal. These animal were mainly employed to carry goods of armies to their base camps with each *De* carrying around 80 kilogram to 100 kilogram of load and costs 800-850 rupees. Around 15-25 *De* are engaged at a time and are hired on the contract basis. A mutual relationship builds up between the herds and the herders throughout the course of these activities where an emotional as well as physical bonding are often seen being established.

The *Dokpas* and the Yak have long been involved in shaping a relationship, which is unique in itself. This relationship might be perceived under various facets related to subjugation, protection, admiration, company, transport, food, or exploitation etc. but it can be consider with the respect, since this relationship goes way beyond that and is always under construction. Yak as a spiritual entity is determined through the sacred symbolism during religious ceremonies that have persisted over time. Animal sacrifice has been the object of criticism within the *Dokpas* sacred realm moreover the practice of according life to animal as an act of compassion or to appease their deity is a distinctive temperament associated with the religious attitudes of the Dokpas.

The life of Dokpas in a high cold altitude is sustained by the Yak, which provides them with the necessities of life. Yaks are the only valued economic assets the *Dokpas* own and central to their everyday life. Apart from their economic importance, the social construction of the Yak seems very fascinating and is reckoned in the linked socio-cultural dimensions of the Dokpas. The importance of the Yak is represented upon their cultural manifestations as well as symbolic social values. Traces of the yak pastorlism practices however with various changes often have survived in a small frgments of the Sikkim. Structural changes in the traditional practice can be observed through the emergence of different pastoral features with different actors coming up in the field. Presence of hired labour reflects the divergence of young generation from their so called tradition and lead to a future gap between their indegenous knowledge of Yak rearing. Despite of structural alteration, the present herding practices reflects that human and animal together have shared space, experiences and built a mutual relationship that is allowing them to maintain the historical continuity and safeguard theage-old tradition.

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