

Reindeer Ears: calf marking during the contemporary era of extensive herding in Swedish Saamiland

By Hugh Beach

The marking of livestock in the ears is both an ancient and also a widely spread practice applied to numerous species and serving a number of purposes. Ear tags can be used to specify which category of animals in a herd might be destined for certain husbandry tasks; or they may serve to give a single animal an individual identity, should this be necessary, as for example when recording slaughter weight. Most commonly, however, ear marks are employed to indicate ownership, identifying a unique person rather than a unique animal. This paper scratches a huge surface by narrowing its ethnographic focus to reindeer livestock in Sweden with emphasis on contemporary times and future speculations. Accounts of earmarking practices among the Saami have tended – sometimes unintentionally – to convey the impression of a single, coherent tradition. Limited synchronic case studies have often been unduly extrapolated in formulating grand schemata claiming to represent the cultural ways of “the Saami people.” A purpose of this paper is, on the contrary, to demonstrate how this ancient but variable tradition of earmarking readily attunes itself to current conditions and to the prevailing issues at stake.

Given the legal restriction stipulating that reindeer in Sweden can be herded only by those of Saami ancestry who are also members of designated so-called “*samebys*” – meaning defined social groups exercising specific land rights including use of defined grazing areas – it becomes evident that the focus of this paper must encompass the traditions and modern practices of a small, indigenous minority whose actual herding contingent is only approximately 3 000 people, constituting some 15% of the conjectured total Saami population in Sweden of between 17 000 and 20 000. Besides legal constraints, market realities in combination with other historical particulars have occasioned a long process of what I have termed herding extensification (Beach 1981). Although so-called “extensive reindeer herding” (epitomized by loose control of the deer) is an immanent potentiality for any more “intensive” herding form (meaning a relatively tighter control) and has been to some extent subject to seasonal adjustments even

prior to the heavy-handed dictates of internal colonialism and globalization, its explosive trend over the last fifty years and its contemporary form are heavily determined by the laws and economic realities of the surrounding Swedish society. Hence, what this paper describes and analyzes is an exercise in political ecology whereby culture and power are seen to be integrally linked.

Concretely, this paper will deal with what can be termed the politics of reindeer marking and a number of recent and ongoing changes in reindeer calf-marking practices in the three mountain *samebys* of the Jokkmokk region: Tuorpon, Jåkkåkaska and Sirkas. Despite the relatively narrow confines of its primary case material, however, this scratched surface unfolds soon again onto a vast horizon, in part through secondary case material introduced for comparative purposes from other herding contexts, but also through its relevance to a broader anthropological discussion concerned with the interface of changing traditional practices and new technologies.

WHAT'S IN A MARK?

Much has been written about the variety of reindeer marking techniques; for an excellent presentation and insightful analysis, see Stammler (in press). At least a few variations and accompanying terminological distinctions are immediately required. The marking traditions of the Saami show much in common with the practices of reindeer herding peoples throughout Eurasia. Prime among these marking techniques is that of the earmark, whereby, with a variety of cuts of different characteristic shape placed so as to form a unique pattern in a deer's ears soon after its birth, its owner is declared. The default rule is that one owns the newborn calf if one owns its mother (*vaja*, or female deer, in Saami). This form of ownership identification, the cut pattern of notches in the ears, is in this paper termed simply "earmark" or "mark". The earmark, while rooted in pre-historic traditions, is required for all reindeer by Swedish law, circumscribed by government regulations, and carefully registered to its designee by herding authorities. The following quotation from a governmental investigation of Swedish reindeer herding exemplifies the degree to which State authorities have inserted themselves into Saami traditions.

In the earmark shall be permitted only those cuts pictured in the appendix to this proclamation. According to the appendix the cuts are classed as point cuts (1–20), large edge cuts (X and Y) and small edge cuts (a and b).

An edge cut may not extend to the ear's point.

A cut may not stretch over a third of the ear's length. Edge cuts may not be broader than to a third of the ear's width at the cut.

On the same ear there may not be more than one large edge cut....(SOU 1968:16, §1)



Herders in Alaska apply a plastic color tag to mark a deer for slaughter.

Of course reindeer might be marked by other means as well, traditionally by collars with distinctively sounding bells (most meaningful to its owner, but indicating the special value of the deer even to others) or by so-called “fur marks”, whereby the initials of the owner can be shaved by knife into the fur on a reindeer’s side. In modern times plastic collars are often used, and some of these have been equipped with GPS devices for experimental purposes, so that the deer might be tracked by satellite. Also the ears might be marked in other ways, for example by a numbered aluminum or color-coded plastic *tag* clipped onto a reindeer’s ear.

Color tags might be used to categorize deer destined for castration or any other husbandry act (a usage which in the past might well have been served by another earmark held by the same owner or by cutting a slight addition to the original earmark). Numbers are generally employed to give the deer an individual identity, even if only for a short period – when, for instance, the professional herder’s earmark-reading and ownership-recognition skills vis-à-vis a running deer at fifty meters are no longer required (e.g. at the slaughterhouse), or when such skills are far beyond the ken of the visiting Swedish livestock scientist. Significantly, while tags and collars, putting something *on* the deer, can be purposely removed or torn off in willow thickets, and while fur marks will be grown over or shed away, the earmark (cutting something non-regenerative *off* the deer) is permanent. (How the



As a herder (left) cuts his earmark, he places a piece of the deer's ear in his mouth to keep his hands free. Afterwards he places this piece in his pocket as a kind of receipt, and when he gets home he can count these pieces to see how many new calves he has marked. The herder (right) has strung his ear pieces on a string for easy counting and storage.

unique, supposedly permanent, pattern might be altered to point to another owner is a major topic to be discussed below.) The earmark is also highly visible and recognizable (at least to the trained Saami herder's eye). A skilled herder can usually read minor differences in large numbers of earmarks and be able to name the owners of hundreds of them. These skills may be regarded as a major conservative factor in maintaining the established patterns of Saami herding culture. Yet despite the weight of ancient tradition in basic earmarking technique, despite regional breadth and cross-cultural commonalities, I argue that few practices are as swift to adjust (or sometimes degrade) to their necessary level of informational content as is the ear mark system. One is not likely to find distinctions maintained which imbed information in the earmark that is not significant for the current social situation of ownership, herding or husbandry. New legal limitations can naturally force rapid acquiescence (for example, restrictions in the number of earmarks permitted per herder discussed below), but changes are also quick when new possibilities arise. Researchers of herding systems intuitively review marks in the area of study, as their complexity, number, family patterning, hierarchical exclusivity or "openness" (i.e. ability of one earmark to "take" another or lie "over" it) reveal a good deal about herding social relations and structural organization.

THIEVERY AND “MISTAKES”

In essence, the earmark affords herders a means to secure reindeer property and to minimize reindeer losses. Loss of reindeer property can occur through predation, but if the carcass is found with ears sufficiently intact to enable identification, the owner can receive compensation from the Swedish government. Loss can also occur through different forms of theft: 1) the surreptitious killing of another's reindeer for its meat (what might be termed “predatory thievery”), a form of stealing available to Saami herders and other Swedes alike; 2) the alteration of one herder's earmark by another herder in order to appropriate not only the eventual meat of the animal, but more importantly its continuing reproductive capacity (“appropriation thievery”); or 3) a more likely variation of the previous form of appropriation whereby an unmarked calf is surreptitiously marked divergently from its *vaja*.

Should the mark of an adult deer arouse suspicion, or divergence be spotted between the earmarks of *vaja* and calf, it is essentially a matter for the two parties (or concerned relatives) to work out. Of course the re-marking of an already marked reindeer, calf or otherwise, is easily spotted when the new cuts are fresh, and if not condoned by the original owner (see below) can hardly be framed as a legal act. In the case of a newly marked divergent calf, however, the designee of the divergent calf's mark can simply claim it was a mistake. The calf had appeared to be running with another *vaja*, or else the *vaja*'s mark was so similar to his own that he thought it his. Naturally each herder knows well which other earmarks (usually those of close relatives) are so close to his own as to cause possible confusion and which can threaten to “take” his should he make certain cuts too small (or spaced too closely) so that they might be removed under another larger cut. In effect, for each herder there is a group of herders who can far more easily than others make real or false “mistakes”, but it is also usually this group that shares the tightest family bonds and by working often together has most cause for mutual trust. In the flurry of early summer calf markings, family members may spread out to cover markings in different corrals with the mandate to mark for each other as a matter of course. According to law (Reindeer Act 1971, §83), any herder observing a calf still unmarked at the end of a corralling should mark it, if possible, to match with its *vaja*. Of course, sharing similar marks makes it all the easier to spot and mark for an absent family member, and if such a family representative is present, it is a task left to him or her. As one would imagine, a herder's long-term mistake record is a vital part of his or her character assessment. Plundering the stock of animals from someone who needs them and cares about them is reprehensible and is not tolerated in the Saami community. However, there may be extenuating circumstances that could render “mistaken earmarking” under certain conditions socially

acceptable. Reindeer herding, after all, is a collective activity, where each member of a *sameby* depends upon the active collaboration of others. Laziness, lack of herding interest, and over-reliance on others without reciprocity, therefore, constitute an unpardonable pattern of behavior on the part of anyone. Asking others to do more than their share of work for you time after time is in effect a kind of thievery. Hence, it is readily understood and accepted by herders that those who are rarely present at calf markings (or do not have their interests covered by the presence of family) risk over time having no calves left to mark. Although the gradual disappearance of a chronic non-contributor's calves may be technically the result of illegal activity, and though this development would not reflect any deliberate message sent by the collectivity to such an individual, this is a process more likely to be socially condoned than condemned. The loss of property and social status accruing to a parasitic herder (who persists in taking a share of limited collective labor and grazing resources) is generally perceived as a matter of just deserts.

When it becomes plain that an earmarking mistake has been made (intentionally or not), rectifying the wrongful appropriation of property can prove problematic. Commonly the wronging party offers the wronged party one of his or her own unmarked calves to mark. While this might correct the reindeer ownership account, it means the introduction of yet another divergent *vaja*/calf pair into the herd. This in turn casts suspicion on the wronged owner of the newly divergent calf, for other herders (perhaps in other corrals where the *vaja*/calf pair are spotted) might not know that this divergence was to compensate a prior divergence, and the original wronging party can appear as victim or redeem his character by hiding behind reverse causality. To avoid this situation, some herders have the habit of simply demanding cash payment from the one who marked their calf wrongly.

“WHOLE EARS” AND “ORPHANS”

Should a calf remain unmarked too long – that is, past the time when it runs constantly with its mother¹ – then there is no way of knowing who the proper owner is, and this “whole ear” calf might be marked by the first

¹ Some calves might run with their mothers for a long time, even after she bears a new calf the next year, but generally the visible bond is dissolved by Jan. 1. However, some calves fall away from their mothers even earlier, and as a rule the earlier one can mark without injuring the newborn calf the better. The cutting of ears in extremely cold temperatures impedes their chances of healing properly, can cause damage, and result in an unclear mark. According to the Reindeer Mark Act of 1928, herders were obliged to have marked their calves by Nov. 1. Later, as herding extensified all the more, the period when calves should be marked was extended to May 1 (only a couple of weeks before the new crop of calves arrive) if witnesses are present (Reindeer Act 1971, §83, SOU 1968:16, §12).

herder who gets a hold of it without much risk that the calf's association with its *vaja* would flag any divergency of their earmarks. Moreover, in some herding areas depending on local custom, it can be quite accepted (even though formally illegal) for herders to mark yearling "whole ears" for themselves if the animals are found in the herders' previously separated winter herds. However, it would be considered improper as well as illegal (according to §9, point 3, of the Reindeer Mark Act of 1928) to do such a thing in the collective marking corral under the noses of all other possible owners. During corral occasions it is generally accepted (and prescribed by law) that "whole ears" belong to the entire *sameby* on whose ground the corralling occurs. The "whole ears" can either be auctioned off, with the funds going into the *sameby* treasury, or else they can be marked in the *sameby's* own earmark, if such a mark has been registered. A yearling "whole ears" with a freshly cut, blood-rimmed private mark would draw unfavorable attention in the corral to the designee of that mark, unless of course all have seen that the owner won the deer in a competitive auction.²

In my own experience I have found that during the 1970s when total *sameby* herd sizes were often well below government specified, so-called "rational" limits, whole ears were auctioned off in the corral at the end of the regular marking process and would be eagerly purchased especially by younger herders desiring to build their herds rapidly to promote the financial strength of their livelihood. In some cases the corralling "host" *sameby* would even subsidize the auctioning power of its own young herders to give them an edge in the bidding with herders from other *samebys*. Later, as total herd sizes came to press maximal limits and herders could not justifiably promote individual herd increases in the face of the order to reduce collective herd sizes, it became more common to find that "whole ears" were earmarked with the *sameby* mark and consigned to slaughter at the first opportunity.³ Such *sameby* auctioning or earmarking of "whole ears" will, of course, save the deer for collective benefit – and might even involve the appropriation of a deer which conceivably would have belonged to a herder from another *sameby* – but it means nonetheless a loss to the owner of the "whole ears" mother, the individual who would have been

² Exactly which orphaned "whole ears" was it, however, that a herder gained in the bidding? One form of possible theft I have been told about is for a herder to bid successfully on and pay for one "whole ears", but to mark two "whole ears" in the corral. The chance that both of these calves would later be spotted together is slight.

³ Herders must always weigh the certain gains of slaughtering a reindeer "in the hand" as opposed to releasing it to "the bush" for later slaughter when it has grown to more profitable size. The main risk involved is that a reindeer predator (notably wolverine, lynx, bear or wolf) will kill the deer before it is corralled again for the next slaughter opportunity. Deer carrying the *sameby* mark are even more at risk. They are more prone than other deer to "predatory thievery" described above, since their loss is absorbed by the collective and is not concentrated to any individual owner.

duly recognized as the calf's owner had only the deer been marked in time. (Also, when markings have been delayed or incomplete, the auctioning of "whole ears" might constitute a loss to a neighboring *sameby* whose deer had mixed with the corralling "host *sameby's*" herd.)

A sub-set of "whole ears" is the "orphan", a young calf well within the period to be running with its mother, but for whom the *vaja* is absent. The *vaja* may be dead and the calf a true orphan, or else the *vaja* may simply have managed to evade the herd-gathering procedure and lost her calf in the turmoil of corralling. In either case ownership cannot be determined for the orphan. In principle, orphans should be released unmarked after the corralling in hopes that they will find their mothers and appear together with them in another marking corral. A true orphan would then in time come to be treated like all other "whole ears", marked to the *sameby* or auctioned for its benefit. Even before expiration of the time prescribed for the marking of calves in the law (ca one year), however, it is tempting, to auction, mark to the *sameby*, or to turn a blind eye to the private marking of orphans by host *sameby* herders, for otherwise the opportunity would be lost of securing to the corral-host *sameby* calves which might in fact belong to owners in neighboring *samebys*.⁴ However, once marked, such an orphan cannot with certainty be recognized as an orphan. A freshly marked calf in the corral will certainly not draw the attention that a freshly marked yearling would. If spotted, the marked orphan will appear to be like any other newly marked calf that for the time being might be separated from its mother during all the commotion in the corral. Obviously, orphans are attractive marking "prey" to the herder with a fast lasso and few scruples. To mark an orphan cannot be construed as the most egregious thievery, after all, especially if many herders would have liked to, or have done, the same. There are, thus, various degrees of misappropriation with accompanying degrees of surreptitiousness. Of course the herder aiming to mark a supposed orphan must not be overly quick, in case the *vaja* really is present somewhere in the corral, but he must not be too slow either, in case another herder beats him to it. He will be taking the risk that the calf is not a true orphan and will reunite with its mother waiting outside the corral, but the risk is not great that the pair will appear in another corral to flag marking divergence before the *vaja*/calf bond dissolves. Even if it should come to

⁴ I have heard disgruntled herders air such suspicions toward their neighboring *samebys*, but should corral hosts release all orphans unmarked, it could later put them in the same disgruntled situation at another corral. Inter-sambey trust is important, and it can easily fall into a downward spiral. On the whole my experience has been that neighboring *samebys* enjoy a sense of fair play vis-à-vis each other. None the less, it is always wise for a *sameby* to have members attending the corrallings of their neighboring *samebys* to keep on eye on collective interests as well as their own personal interests.

pass that an orphaned calf from one marking corral appears next time with its mother in another corral flagging divergent marks, the herder who has marked the calf need not hang his head, at least not overly. Naturally, mistakes will happen from time to time; and for every genuine mistake there is a possible false excuse that a herder can hide behind. The herder who has marked a calf wrongly might claim that the calf may have been an orphan in the corral where he marked it, but that it had been – temporarily at least – “adopted” by his own *vaja*. (An orphaned calf will naturally attempt to suckle from other *vajas*, and some *vajas* will adopt an orphan permanently. In the case of a *vaja* with two calves, one of them has most likely been adopted, although a herder cannot usually know which one.) Moreover, for all more distant herders might know, he could have bought the orphan honestly at auction in another corral. It is quite probable that this is a genuine, “no-blame” marking error. Yet, even if this were not so, the herder could see that the calf had no permanent mother (natural or adopted), and he knowingly and wrongfully marked the calf as his own rather than let it go unmarked to become in time a yearling “whole ear” for *sameby* mark or auction, he at least had no intention at all to steal from a particular individual.

CALF-MARKING VARIETIES

Before going further into detail about the earmarks themselves, let us consider basic variations in how calf markings are carried out, getting in the position to apply the earmark. In the mountain *samebys* of the Jokkmokk area, there are currently three main variations to consider, and while each is still practiced, there has recently occurred a dramatic shift toward a particular method, to be described below. The three alternatives can be named: 1) the lasso marking method, 2) the number-sign marking method, and 3) the snare marking method. Such a presentation imbues these calf-marking practices with a somewhat artificial typology, and it should be noted that these are simply names which pinpoint distinctive techniques used in the corrals for capturing the calves (lasso or snare) or for determining *vaja*/calf linkage. There are many points which these forms of calf marking share in common and other points of difference which might be highlighted to make other typologies. I am using the categorization above, however, because it lends itself readily to issues in focus here, reindeer property protection and loss, and most significantly because it reflects (for the time being at least) the way the herders themselves speak.

In the lasso marking (that which was the only kind of summer-time calf marking in mountain *samebys* of the Jokkmokk municipality at least dur-

ing the 1960s if not earlier and on into the 1990s) the deer were collected from a wide area and driven on foot (in later years supplemented by motor-bike) to a few large corrals. The corrals were large to allow plenty of room for the deer to run without crashing into the fencing, since the pace was fast. Lassos flew through the air, and herders ran for throwing position following their calves' counter-clockwise dash to escape.



Herders often worked in pairs, one to cut off the calf's forward movement, slow it down and turn it between the pair of herders, so that both might have a lasso shot. A calf might nonetheless break a leg against the fence and have to be killed. An unavoidable tension exists on the one hand between needing calmness in the corral for *vaja*/calf pairs to stick together in a readily visible manner (without their bond being overrun and submerged by the bodies of many other running deer) and on the other hand the need to lasso the calf, thereby stirring up the herd. As one herder spots his calf and runs to capture it, he can in so doing stampede a flock in the corral and ruin the chances of another herder to track his mark or take his throw. A herder will try to be considerate of his fellows in the corral work, to see when another herder is approaching a decisive moment in turning a calf or taking aim, but he cannot neglect his own opportunities. Although some women might be in the calf-marking corral, few threw lassos, it being mainly a male skill which women would leave to fathers, husbands, brothers or sons if available. Herders would first and foremost be concentrated on marking their own calves (or those of absent family members or owners with deer contracted under their care),

and while they would be likely to notice the result of any suspicious or untoward earmarking behavior by other herders, they would hardly be in a position to hinder it.

The number-sign marking system was designed to alleviate some of the problems of the lasso marking, but it has never been widely practiced in the Jokkmokk mountain *samebys*. Where lasso markings have occasioned most problems, number-sign markings have been used, but they have never attained dominance. In Tuorpon, for example, they have never been utilized. In the number-sign marking system signs or collars with large numbers, visible at considerable distance are placed on each calf as the deer are led through a chute into the corral. The herd is left alone; the *vaja*/calf bond is re-established and uninterrupted, the herd calm, even as ownership is being registered in preparation for the actual marking. With the essential ownership-generating link re-established between *vaja* and calf, ownership can be observed and even recorded, numbers being assigned to their appropriate owners and recognized by all herders, even from outside the corral. The numbered signs on the calves, essentially temporary individualizing tags, enable ownership assignments to be transparently inspected and agreed upon by all present before a single calf has been caught. Once agreement is reached and unsure cases considered, the deer are channeled over a “step” construction which only calves are small enough to pass under, and larger deer must step over, thus effectively filtering the calves from their *vajas*. Then the calves are easily grabbed as they emerge in very small enclosures, their numbers called out one by one along with the name of the owner who comes forward to cut its ears in the traditional manner under the eyes of all present.

There are a number of advantages of the number-sign marking system over the lasso system. The ownership of all calves is transparently agreed upon by all herders present before a single earmark has been cut. Orphans do not fall to the herder with least scruples and fastest rope. Not only is there a greater weight of collective control, but technical skill with the lasso no longer plays a role. There are also some drawbacks however. The herd is in effect “double processed”, i.e. the animals are twice put through the trauma of close human contact, once as the number signs are applied, and again when the actual earmarks are cut. The process impacts upon the *vajas* as well when they are brought into the corral with their calves and later when they are filtered away by the “step”. Collective transparency and consensus take time. Not only must the herders wait patiently to be called forth one by one to apply their marks, but the animals can be kept overly long in the corral should the herd be large. Once called forward to cut their marks, therefore, herders often feel overly hurried.

The year 2004 saw the introduction of the snare marking method in the

mountain *samebys* of Jokkmokk, first in Jåkkåkaska *sameby*, then in Tuorpon, and by 2008 in Sirkas. The main innovation is the replacement of the lasso as the means of capture. Instead of the lasso, herders use the snare, a small loop of rope on the end of a long pole which tightens down, commonly around the reindeer's back leg. With this device, a herder saunters up to an unsuspecting calf, slips it under the animal's belly, and then pulls tight when the calf steps into it. Speed and long-range lasso-throwing accuracy are no longer keys to success; with the snare, calmness prevails. The herd moves slowly in the corral, *vajas* and calves easily maintaining contact, and the herders walk slowly among them. Snaring skill is a matter of sneaking close to a calf without signaling the intention to capture it, lowering the pole gently under the calf and pulling back once the calf has stepped into the loop. Women are every bit as expert at this as men and far more active in the marking corral than I had seen previously.⁵ The snare pole instrument is of ancient origin and has long been employed by herders in forest *samebys*. When in the field in 2008 I was told by Jåkkåkaska herders that they had witnessed its use during periods when poor grazing conditions had forced them to keep their animals in close proximity to those of forest *sameby* herders during the late winter. With the arrival of spring, they had seen the forest *sameby* herders catching their calves with the snare and had become intrigued to try it out. The modern version of the snare pole is composed of three parts: (1) a telescoping window-cleaning or tree-trimming pole composed of light-weight materials; (2) a strong and flexible loop of rope made of synthetic fibers, which is fastened to the pole; and also (3) a half-meter piece of plastic plumber's piping through which the rope is partially threaded in order to keep the loop open. Tuorpon herders whom I recently observed, for example, were most usually equipped with yellow modified window-cleaning poles which had been located via Google internet searching and imported in bulk from Poland.

⁵ Naturally this also has to do with changing age/sex composition of a *sameby's* population, but I do not believe an increase in the proportional number of women in a *sameby* is by itself sufficient to account for the rise of increased female activity in the marking corral. Even though women might not be physically as adept as men at throwing, I have encountered many accurate, high-speed female lassoers. Hence I believe their relatively low numbers in the lasso corrals is at least partially due to cultural norms, and the rise of female participation in calf-marking corrals today reflects changing norms. Another factor with impact for this discussion, however, has to do with the number of days necessary to gather the herd for marking or for awaiting the arrival of the herd at the corral. Previously it could take many days. Nowadays with helicopter support and easy wireless communications, it can be a matter of hours. Women no longer have to face so often the prospect of tight quarters cramped with many men in herding cabins.



Snare marking has the advantage of maintaining calm in the corral throughout the marking process. Unlike lasso marking, this method does not cause panicked reactions among *vajas* and calves who have lost each other in a mad scramble among other reindeer racing to escape the flying rope – a scramble that considerably impedes the herders' ability to trace their ownership. Instead, the *vajas* and calves walk in relative calm and mostly side by side, making the whole process of earmarking much easier. There is also no double-handling of animals as with the number-sign marking method; nor does the marking process require as much time as does

number-sign marking, since all herders are catching and marking calves simultaneously. To be sure, snare marking cannot achieve quite the level of collective consensus on all ownership issues as does the number-sign marking method; yet with *vaja*/calf bonds more continuously evident than in the old lasso marking, transparency is at least increased. My experience of snare markings is to date very thin, as such markings are of recent origin among Jokkmokk herders, and the frequency of my visits with them has decreased; yet I can confidently testify that almost all herders today profess to prefer the snare marking method. The animals are far less stressed and sustain fewer injuries, and it is not even permitted for a herder to revert to lasso use in a marking corral where snaring is in progress. A few herders can be heard bemoaning the loss of lassoing skills, a loss which they claim was already evident in the younger generation. However, the use of the lasso is not entirely a thing of the past, for as the herders point out, the lassoing of large animals in winter separation corrals (where maintaining visibility of *vaja*/calf bonds is no longer the major concern), will probably not be replaced by snaring.⁶

Older herders bemoaned the loss of other herding skills as well, and these reflect changes certainly as significant, though not as radically evident, as with the sudden adoption of a new article of equipment. While the use of helicopters in the gathering of deer to the marking corral has been common for some time, it has become increasingly dominant. Whereas formerly the helicopter would spot stray flocks and provide backup support to a team of herders on foot, it now gathers the herd and drives it to the corral practically unassisted. The gathering sweep is therefore far shorter than previously; for not only is helicopter use more efficient, it is also extremely expensive. Moreover, in order to ease unnecessary stress on the reindeer, a currently favored goal is now “to bring the corral to the deer, rather than the deer to the corral”. Light-weight fencing and poles can be lifted by helicopter to almost any location, and the number of sites where calf markings are held has increased over the last thirty years. The frequency of markings, each understandably involving fewer animals than those earlier, has also increased. These increases together have an exponential effect. Given that Tuorpon herders, for example, will want to cover the markings of both Jåkkåaska and Sirkas *samebys* as well as their own, they will be hurrying to so many markings during the first weeks after midsummer (ca June 21) that sleep becomes problematic and travel to the corrals without helicopter is virtually impossible.

⁶ Then again, lassoing may become a thing of the past in winter as well, not due to the use of snares, but instead to the continued spread in use of so-called “pit” corrals. These are small corrals, holding a small number of deer at a time which are then easily grabbed and pulled out by hand to different booths.

As a result, the older herders say that young herders no longer learn how to gather the herd on foot; and that as a result their knowledge of the land has declined dramatically. Knowing the land from the helicopter's perspective is no substitute for knowing it from the ground perspective, as the latter is what allows for best knowledge of reindeer land-use patterns. Cynical older herders at times imply a reverse causality: rather than the ostensible goal of bringing corrals to the deer for less stress, resulting in loss of gathering know-how, it was the inability of young herders to gather that has necessitated the (over-)use of the helicopter. Determining which of these outlooks is more correct, however, is perhaps of little import in light of the fact that helicopter use and deteriorating gathering ability are locked into a spiral of mutual reinforcement.

Helicopter expenses comprise one of the largest drains on the *sameby* budget, demanding in turn that herding fees paid by owners per deer to the collective treasury rise to the occasion. Naturally, the ability of herders to pay sizable herding fees rests upon their attainment of good profit from their reindeer livelihood, ultimately on thorough marking procedures and minimization of reindeer loss. High herding fees can be countered only by bringing funds into the treasury from other sources. One such major source also relates to calf-marking policy, in this case the securing of "whole ears" to collective rather than individual benefit, either through auction or marking with the *sameby's* earmark. Registration and active use of *sameby* (as opposed to individual) earmarks can be readily related to rising collective *sameby* herding expenses and to the effects of so-called "rational reindeer herding" as promoted by law and regulations.

CODES AND CRIMES

In a series of publications culminating in *Camps of the Tundra* (2008), Robert Paine has presented what he terms the Reindeer Message Code (RMC) as he found it during his fieldwork among Kautokeino Saami in the 1960s. His seminal work affords a necessary corrective to the simplistic projecting of concepts such as thievery or rustling onto Saami realities. Paine points out that what our legal system would define as rustling or destruction of property, for example by altering a deer's earmark or by killing another herder's deer, must be evaluated in other terms and might be perpetrated by herders not out of malice or greed per se but in order to assert or defend territorial claims over pasture lands. Such deeds are not necessarily covert acts of thievery or vandalism which a perpetrator would wish to hide. Instead they may be messages in reindeer currency with addressee and sender writ large. Among other points, Paine makes the following:

Rather than “rustling,” its principal concerns are of a *corrective* nature concerning unacceptable appropriation of another’s animal and unacceptable trespass on another’s seasonal pasture. (Paine, 2008:123)

It must be noted that the RMC as described by Paine, with its detailed scaling of severity of message when involving animals of different value, can be quite different in different places and at different times. There has likely never been a single Saami RMC model, nor can it be assumed that all Saami herders participate in any operative RMC at all. Although a Jokkmokk herder today would surely “get the message” were he to find his prize reindeer killed but otherwise untouched and the perpetrator making himself clearly evident, messaging of this nature, even if less extreme in its degree, is highly unlikely and if encountered in Sweden would probably be reported to the police. I believe this can be explained by two essential differences: (1) the historical depth and great degree of penetration and control by state legislation of Swedish Saami herding; and (2) the ever-expanding extensivity of herding form, a development which has reduced drastically the herder/reindeer interface and thereby effectively “cut the wires” essential for much of the messaging through reindeer described by Paine. While Paine is right to observe that one must recognize the potential communicative function that is sometimes involved in earmark alteration, it remains the case that such alteration may often still be a sheer act of theft. This article seeks to explore reindeer loss and the precautions, politics, and technologies used to avoid it (or perhaps to inflict it) in cases which are *not* meant as messages. Put another way, one might say that the single message under consideration here is “this is *my* deer”, the essence of the earmark.

DESIRED REINDEER TRANSFER

A number of illegal methods of appropriating living reindeer property have already been mentioned, and we have noted that some of these are more morally tainted than others – for example, changing an existing mark as opposed to marking an orphan. There are also different degrees of severity in transgression when it comes to taking reindeer meat belonging to others. According to old Saami tradition, should someone be in dire need of food and the only deer available belong to someone else, it is considered perfectly acceptable for the deer to be eaten. He who took the deer should report this later to the owner and offer compensation if possible, but in cases of poverty this would not be possible and would not be expected.

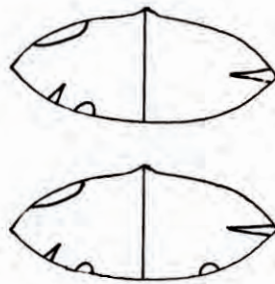
If a deer is killed by accident by a car on the road, the driver should report it and see to it that the police take the meat and record the earmark so

that the owner can retrieve compensation from the government. Should the driver not wish to be bothered with calling the police to make a report, he might simply leave the deer to be found later by herders to deal with. Should he reason that it would be shameful for the meat to go wasted, he might take it in his car, call the *sameby* or a herder he knows later to identify the earmark and negotiate sale. Of course, an unscrupulous individual might simply take the meat and disappear. But according to law, the hide with earmarks for ownership identification should always accompany any meat found from a slaughter. The owner of the earmark can always in principle be contacted to confirm that those in possession of the meat had indeed obtained it by legal means. If a lot of reindeer meat is found in a car without an identifying earmark, the driver will face heavy charges. On the other hand, if the earmark is present, it is far less likely that attempted theft can be proven with certainty. (The animal may have been killed by accident, and perhaps the driver can plausibly argue that he or she was planning to contact the owner.) A well known trick for premeditative thieves, who hunt down reindeer along the roads in winter, is to carry with them always in the car a hide with earmarks which they might present if questioned. The same hide can be “recycled” time after time, and during the winter it would require a police officer with a keen eye to note the difference between a freshly frozen hide and a somewhat older frozen hide. (Needless to say, this ruse is less likely to succeed if the police actually do contact the owner of the earmark to verify that the meat was obtained legally. Then again, a well-prepared thief can make a single legal purchase in order to establish the basis for future “bargains” whereby he “pays for one, but takes three” – one at a time.)

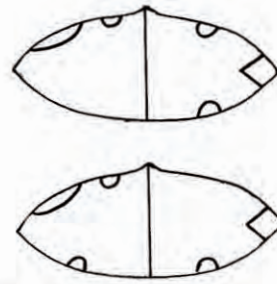
It is evident that the ability for earmarks to help prevent illegal appropriation of reindeer property lies in their unique patterns, their careful review related to the possibility of one to “take” another, and their registration with a central authority empowered to accept or reject them. Yet, at the same time, one must keep in mind that reindeer owners also have good reason sometimes to *desire* the transfer of living reindeer property, for example as a means of payment, gifting, or most commonly, inheritance. Obviously the rigor with which earmarks hinder theft also can hamper or make problematic the desired transfer of deer to new owners. In the past, herders wishing to designate certain of their own reindeer to their children during their lifetime (an act dubbed “anticipatory inheritance” by Paine) might simply have marked them with another of their own earmarks. This sort of transference could sometimes involve instances of owner-desired *vaja*/calf mark divergence. Upon the parents’ death the deer marked with that mark would be handed over to the appropriate child and would not be confused with the deer inherited by other siblings. Of course the parents

might have marked them with their child's mark in the first place, but then such a deer would be an outright gift and not necessarily under the parents' ownership and care. In 1928, however, a new Reindeer Mark Law was passed in Sweden which terminated the possibility for herders to possess more than one earmark each (§4). Anticipatory inheritance by divergent earmarking became an impossibility.⁷ As a partial, though less satisfactory way to achieve the same end, herders can at times take advantage of the possible uni-directionality of earmark hierarchy.

In the diagrams below, Case A presents a situation whereby the first mark can easily be altered into the second mark, while in Case B neither mark is able to "take" the other.



Case A: The lower mark can "take" the upper mark.



Case B: Neither mark can "take" the other.

Marks in Saamiland are drawn as if looking down on the head from above with the deer facing upwards, head omitted, and the ears put together.

According to law, marks should preferably not "take" each other at all, but it is permitted if all concerned parties are in agreement that one mark have the possibility of being altered to another. Usually with marks linked by a uni-directional hierarchy the difference in over-all pattern between the first and second marks is slight, and any herder would readily recognize a close family bond between the owners even if they were unknown to him or her. Uni-directionality of marking hierarchy of this sort can of course be utilized to transfer deer, but it rests on an implicit trust that the second owner in line will not take deer unilaterally, i.e. not without the blessing of its original owner and the acquiescence of the earmark registration authorities. Commonly, it would be the original owners who would decide when to alter an existing mark or to mark a new calf divergently from their own *vaja* in favor, for example, of their child.

A reindeer earmark may be registered only if it

⁷ While the Reindeer Mark Law of 1928 was superseded by another in 1960 (SFS 1960:144) and largely incorporated into the still-current (though often revised) Reindeer Act of 1971 (SFS 1971:137), many of its essential regulations still prevail.

1. is clearly distinguishable from other valid marks which can be applied to reindeer with which the applicant's deer can be mixed,

2. has a form which as far as possible protects against illegal re-marking.

Without hindrance of the first paragraph 2, a kin mark may be registered with the consent of the holder of an older mark of the same basic type which can be inconvenienced by the registration. (Reindeer Act 1971, §77, my translation and italics)

This rather cryptic phrasing which I have italicized above means that a mark can indeed be accepted for registration with the authorities which “lies over” an already registered mark (uni-directional “taking” as in Case A) if the two registrants agree. Hence an avenue for property transfer between two living herders might be opened up. For example, were a son to have such a mark in place with the consent of his mother, he could easily acquire animals from his mother through re-marking sporadically over time, or else all at once according to his mother's testament upon death. While pre-arranged, the setup of this Case A-mark relation is not fully equivalent to what Paine terms “anticipatory inheritance” from his Kautokeino field experience. In Paine's anticipatory inheritance model, deer later intended for different children have this intention clearly marked; yet they remain as property of the future donor. In the case examined here under the Swedish Reindeer Act's §77, the deer themselves carry no sign of anticipatory ownership transfer. It is the Case A-mark setup which indicates such an as-yet-unspecified intention, and once re-marked the deer are already transferred along with accompanying implications for taxation and internal *sameby* voting power distribution which is herd-size dependent (Beach 1981:386). The future donor might have a number of children, and all of these might conceivably be furnished with different Case A-type marks lying over his or her own. However, if the parent dies before the re-marking has actually been performed, then there is no way of knowing which deer (and maybe not even how many) are to be transferred to a particular child.

The inheritance of reindeer property upon the death of the owner complicates matters, especially if heirs do not possess earmarks which can “lie over” the mark of the deceased. An heir can of course inherit the earmark of the deceased as well as the deer carrying that mark, but in that case he or she must report the intention to de-register his or her previous mark, as the law permits only one (regular) mark per person. Otherwise the mark of the deceased becomes a so-called “death estate mark”, an object for de-registration, and the use of such a mark must be phased out. Specifically, after ten years no deer are permitted to carry the mark, all new calves being marked instead with the sign of the heir. Older deer must be slaughtered away if necessary. Things become more complicated still should the deceased have more than one heir (possibly some who are not herding *sameby* members at all), and a resulting negative consequence might well be that relatively young and reproductively viable female reindeer would be slaughtered along with all the rest bearing that mark for the sake of con-

version into ready cash property for easy distribution. In an effort to avoid the need for such an unfortunate development, the law prescribes that death-estate earmarks on deer to be inherited by another herder, or any mark on a deer that is to be transferred to a new owner, may receive a kind of transfer meta-mark, a so-called “avbrottsmärke” (Sw) – that is, a mark superimposed on an earlier mark to indicate an ownership shift. Such a transfer meta-mark can be made with a number of small nicks added to the original mark and need not be officially registered. Any calves born to a *vaja* bearing such a transfer meta-mark *must* be marked with the mark of the heir, divergently from the *vaja*'s original mark (Reindeer Act 1971, §83). Deer are permitted to carry transfer meta-marks for as long as ten years, after which natural loss, appropriately timed slaughter, and the divergent marking of calves should have prevented the need to slaughter any reproductively viable female only because she carries the mark of a deceased herder, a death-estate mark.⁸

“ROOT” MARKS

Plainly, earmarks can vary along a scale of simplicity and complexity of pattern; they can be easily distinctive in a herd or less so; one might “lie above” another (or be vulnerable to it); or two or more marks may resemble without being able to “take” each other. Even in the latter case, however, marks can be easily grouped according to family likeness and reveal a history of increased development through the generations as parents “patent” new marks for their children which are similar to their own yet unique and (usually) mutually exclusive (Case B). Hence an old family mark is a kind of “root” mark for many others and sets the general family earmark pattern or “gestalt” which enables herders to recognize at least the family adherence of a deer even if the identity of the individual owner might not be known.⁹ My point here is that earmarks have a history and

⁸ A herder might choose to discontinue the use of a mark without transferring ownership of the deer already bearing that mark (perhaps because he or she has inherited or bought another mark). The authorities stipulate that such a mark is to be discontinued and calves born to *vajas* carrying that mark should be designated to the same owner under his or her new mark. Should this herder wish to transfer some deer carrying the old, discontinued mark to another owner, these deer would have to be given a transfer meta-mark.

⁹ What to the herder's eye constitutes a main earmark gestalt is quite different from the enumeration of cuts by circular order around the rim of the ears (as cataloged by herding authorities). Some cuts are large and dominant, immediately commanding attention. Other nicks are supplementary to prevent the mark from being “taken” while still allowing the mark as a whole to flag gestalt adherence. When one herder describes his mark to another, he will start with the “strong”, main identifying cut and progress to near-lying lesser cuts while omitting the finer details of the “weakest” cuts until later.

differentiated value to herders, and this value can be judged only from within a wide social herding context. It is quite usual, therefore, for herders to change earmarks at least once – shifting from the mark given *to* them as a child to another mark (often a pre-existing one) made available to them later and adopted *by* them. As old herders die and simple “root marks” of old family tradition become available, they will be inherited or even bought by younger herders (who will then simultaneously de-register their previous marks). Alternatively, a root mark may simply be passed along as a first mark (i.e., re-registered to) a newly born child in a family. A child lucky enough to obtain a traditional family root mark as first mark is, of course, not likely to exchange it for another.

In the traditionally bi-lateral kinship system of the Saami, family adherence varies and is constructed around each “ego” (and siblings). With the accepted and not infrequent shifting of herding partners among available family links (Paine, 2008), practical herding relations are constructed largely *by* each “ego”. Paine (2008) has exemplified the widely flexible generational progression of earmarks under such a kinship system. The choice of different cuts and their positions for the mark of a new child will commonly reflect the marks of the parents, with the choice of other cuts to include growing increasingly wide as reflection of linkage is sought among the kin of previous generations. The choices made by the parents who devise the mark for their child will depend on the social herding context they predict or or at least desire for him or her. They will probably want their child’s mark to be identified with theirs and with a strong herding group. The reindeer wealth and reindeer luck of family members both past and present can play a role, as will the marks of the most probable team companions for their child’s future herding. In the Swedish herding context today, largely due to Swedish legislation, family herding is set up according to the rules for a business enterprise. Each separate family business is to be represented in the larger *sameby* collective by a single voting headperson. This is usually a man, as most of the actual herding work with reindeer in the field is performed by men who are, thereby, far more often than women ranked as class 1 *sameby* members (Beach 1981 and 1982). It is also far more likely that a male child born into a herding family will come to start herding as a steady livelihood than it is for a female child. If the children of two herding families in different *samebys* marry, the fact that it is the man who will be ranked as property master (“husbonde”, Sw.) and take the herding lead for his wife’s deer, causes a bias for patrilocality (even if she enters the marriage with more reindeer). In Sweden, over time, I believe this has led to a situation whereby it is likely that newly “patented” marks which seek to carry a “family resemblance” derive principally from the pa-

ternal side, and thus tend to generate longer continuity of basic male-line patterns.¹⁰

While it is true (as often stated) that herders like to keep old marks “alive” in their families for the sake of tradition, I maintain that there is also a very practical and logical motivation for this as well. Were it impossible to do so, marks would tend to grow more and more complex over the generations in order to secure bi-directional exclusivity (Case B, above), while still reflecting family linkages. Simple “root” marks are ideally positioned to generate new mark “branches” without over-complexity. Such an old simple mark has maintained a position of exclusivity for a long time, commanding the right to close off a great range of new mark possibilities and securing these for its own development along family lines. Such a mark is an asset for the young herder with ambitions of building up a large herding family. The same root mark may already have generated complex branches previously; however, with but one significant addition or change, it can start off evolving new related mark sequences with plenty of room for expansion while still maintaining family-pattern visibility. Most importantly, the old root mark is easily “read” and already widely recognized throughout the herding area, literally shouting out its kin adherence. Such old marks are often readily obtainable, because the number of reindeer herders in Sweden has declined substantially over the last fifty years. This decline is partly due to State rationalization policies (Beach 1981), and partly a result of the dropping proportion of births to deaths within this population group. Hence the likelihood is good that Saami parents today would not require an entirely original mark for a new family member; it is not surprising that recently composed new marks are often in time jettisoned for older marks as they become available.

A bare compliance with the regulation that one mark should not “take” another (except by special agreement for phase-out purposes) would be insufficient to meet herders’ needs and could conceivably even undermine the family-line value of what I have termed “root” marks. If a totally unre-

¹⁰ Admittedly these conjectures are founded upon circumscribed field engagement rather than any systematic study. I see them as tendencies which weigh toward certain conditions. It would prove most interesting to trace recognition and maintenance of main “gestalt” earmark patterning with relation to the necessary mark innovations pursuant to each new generation in the Jokkmokk mountain *samebys* – with an eye toward disparities in distribution of roles and privileges between the sexes, both upon initial assignment (by parents) and later, if the mark is exchanged by the owner. Paine (2008) provides a three generational bilateral “genealogy” of the reindeer markings of one family in his Kautokeino field. I suspect that the bilateral genealogy of earmarks might occasionally reflect a propensity toward “ancestor focus” (main “gestalt” earmark) in the case of “big” herders with many deer or a richness of descendants, partners, influence, and power.

lated herder were to compose a mark that was bi-directionally exclusive – and to that extent in accord with the basic earmark rule – but remarkably like the root mark of herders from another family, that situation would completely destroy the meaning of family mark adherence and the ensuing practicalities of mark composition, kin-marking reciprocity, and trust. In effect, there would then be no such thing as a recognized family root mark with ensuing branches. Significantly, however, the family-oriented concept of the root mark has been upheld by Swedish legislation as well as by Saami tradition:

Reindeer earmark of common basic type for a certain kin group or kin branch–family mark – cannot without special cause be registered to someone who does not belong to that family or family branch. (Reindeer Act 1971, §76; SOU 1968:16, chapter 5, §5)

In the past, before government herding authorities reviewed and controlled the registration of earmarks, the protection of family pattern earmark integrity was a matter of Saami tradition with its own social norms and forms of enforcement. When herding was far more intensive than it is today, and the reindeer comprising a herd generally belonged to just a few, often related owners, guarding the integrity of an old, “simple” family mark was probably not a major problem. Simple marks with few cuts, while most valuable for ease of reading and for rooting new family mark branches, are also relatively vulnerable to being “taken” by similar marks of greater complexity. Hence, with the advent of increased extensivity of herding form, with greater herd mixing and far greater opportunity for unobserved thievery, it was perhaps inevitable that a wide-ranging, centralized registration authority would be necessary to preserve mark integrity and to combat the misappropriation of reindeer property in general. I think it not at all coincidental, therefore, that the first Swedish Reindeer Marking Act of 1928 was legislated pursuant to the regulation of reindeer traffic across the Norwegian-Swedish border with ensuing enforced relocations of many northern Saami herding families and their reindeer to points south. This relocation, along with other developments, led to a surge of extensive herding methods (see Beach 1981). Not only did the relocated northern Saami and the local southern and central Saami have different pastoral practices, their herders naturally did not share across group lines a history of family mark recognition and absentee marking reciprocity whereby herders will mark the ears of calves belonging to absent relatives and have the favor returned when they are not present at another roundup. Records from the period abound with local Saamis’ complaints over the “long ropes” of the interlopers and the loss of whole ears, complaints which the northern Saami vigorously contested. The latter probably considered it a matter of course to mark the

orphans in their herd, while the former doubtless suspected that many of the so-called “orphans” were in fact identifiable as belonging to them. The northern Saami might well have responded, “Well, why aren’t you here marking your own calves, as you should be?” To which the southern Saami might have countered: “We would have marked all of our calves, if you had not driven your huge and uncontrolled herd into our grazing area and swept all of our deer away.”

THE MICRO-CHIP’S MIXED BLESSING

In closing, I would like to consider possible repercussions for herders of some of the latest marking technology along with other, external political pressures for change. During my last sojourn in the field during the summer of 2008, herders expressed fears that EU politicians, opposed to ear-marking on humanitarian grounds, would pass legislation to outlaw the practice. In light of this concern, it might be appropriate to consider alternative methods of identifying and labeling animals. Many of those who raise livestock of other kinds – for example, cattle and sheep – have utilized various sorts of tagging methods to identify both ownership and the identities of specific animals. As noted above, tagging is also often used with reindeer, although in Fennoscandia and among Saami it is of temporary significance and does not replace the earmark. Against this background, it is easy to see that computerized identity tagging, when combined with modern database capabilities, would bring certain advantages to reindeer herders. While the tag itself would simply carry a unique number, the information linked to that number and stored on computer could be extensive and include, besides ownership, also health records and breeding characteristics with chronological depth. Nowadays, micro-chip technology has achieved dramatic reductions in cost for the production of tiny chip implants. The use of such implants, encoded with numerical tags readable to external scanners – either hand-held or permanently mounted (e.g. at a corral chute-gate post) – has already become widespread among livestock owners. These micro-chips, no larger than a grain of rice, can now be swiftly implanted under the skin of an animal by a mechanical device. If this technology were adapted and applied to reindeer herding, the problem of tags becoming torn out of ears in rough terrain or thick vegetation would thereby be avoided.

Granted, under the chip-tag system, ownership of specific animals would become invisible to the naked eye in the field and would be recognizable only sporadically when the deer were scanned. Hence, establishing the ownership continuity of a *vaja*/calf link for calf-ownership regis-

tration would become somewhat problematic. A possible means to work around this problem would be to employ the external number-sign marking system described above, but with the added dimension of placing number signs on each *vaja* as well on each calf as the deer would come down the chute. During their passage one by one down the chute, the *vajas* could have their already-existing chip implants scanned, and the calves could be injected with new chips while also given visible number signs around the neck (chip numbers scanned, recorded, and correlated with the visible numbers).

Alternatively, instead of hanging numbered neck signs, one might use bright spray paint to make big numbers on the sides of the calves and *vajas*. The paint would wear off in a short while, thus obviating the necessity of moving the deer through the chute again to remove the number signs. Painted numbers might also be more visible and less traumatic for the animals to carry than neck signs. Once the *vaja*/calf ownership connection were observed in the corral, ownership registration of a calf would simply be a matter of entry into the computer database. Neither calf nor *vaja* would require further handling, since the calves would not require capture for the cutting of earmarks.

What we have termed “appropriation thievery”, the deliberately false earmarking of living deer, would become virtually impossible under the chip-tag system. Instead, such thievery could conceivably become the domain of the computer hacker, but with simple precautions this too would be preventable. On the other hand, and in the formally proper hands, the intentional, owner-condoned transfer of deer by gifting or by testament upon death, would also be a matter of a few minutes on the computer keyboard. There would no longer be any need for ten-year earmark phase-outs upon a herder’s death, or complex arrangements of unidirectional “Case A” marking hierarchies in order to re-assign deer ownership. What we have called “predatory thievery”, the killing of another’s deer for meat, would still be possible, but hardly the stratagem of recycling of the same hide (containing, as it would have to, a uniquely numbered and registered chip) for different carcasses. With the chip tag, it could be recorded precisely which reindeer’s meat was found in the trunk of a car, not only who owned the deer, and the same deer could not have eight legs.

What has been said above so far about the repercussions of a chip-tag system constitutes potential benefits for herders. There are, however, distinct and powerful negative potentialities as well. Most importantly, the chip-tag system would certainly extensify herding all the more, as the relationship between ownership and labor dissolved to become totally collectivized. Individual herders would no longer be in a position to ascer-

tain in the field whose deer specifically they were herding. Ownership information of living deer would be available from corralling occasions when chip scanning could occur, but hardly otherwise. Extensivity and consequent herd mixing would tend toward and maintain a scrambled ownership composition of herds, and individual herders would no longer be in a position to make confident husbandry decisions about their own animals. The possibility of equipping herders with mobile personal chip scanners carried in the belt might help alleviate this problem, but many animals might have to be captured and scanned before one found a deer one personally owned in order to act upon it – e.g. castrate, separate from the herd, train as a lead deer, or slaughter it. Without continuous practice in the use of earmarks, herders would over time lose the ability to cut and to read them. Both herding and husbandry¹¹ decisions would surely grow to become less and less dependent on ownership, a development that might please some herders, though not others. Granted, there would be applause from the advocates of so-called “rational reindeer herding” and its purported goals of promoting efficiency while cutting labor costs. Yet such changes born of the dramatically decreased visibility of ownership structure in the herd would thoroughly transform herding as we know it today and move it further from a pastoralist toward a ranching model.¹² Periods of herding work during which deer ownership was invisible to herders would increase. Once herders saw themselves as mainly serving the collective benefit as opposed to their own particular benefit, it is probable that they would increasingly come to rely on a wage payment system that would remunerate them on the basis of time-clocked work investments rather than their (mostly hidden) private herd size.¹³ Moreover, as the degree to which herders would work as employees of the collective would rise, individual herding success would become further divorced from individual herding skill. The predictable result is that herders would gradually lose their sense of holding a personal stake in maintaining this traditional, but precarious, way of life.

Given the alternatives and their variously interlocking aspects, it is likely that earmarking will persist (unless politically banned by the EU), because it enables the necessary visibility both for establishing *vaja*/calf ownership links and also for maintenance of the linkage between individual labor investment and individually owned animals. If calves are to be

¹¹ I distinguish the two components of reindeer management, herding and husbandry, according to the distinctions made by Paine (1964).

¹² I am using these terms according to Ingold’s (1980) distinctions.

¹³ As I have discussed at length elsewhere, the wage payment system is already used sporadically or with limited seasonal regularity in some places, but most of the work with reindeer still occurs without its intervention (Beach, 1981 and 2000).

earmarked, then their capture by snare appears to be the favored choice today. Yet this method of choice need not preclude the introduction of complementary methods, especially modern subcutaneous micro-chip tagging. With regard to the transfer of deer property, the problem of earmark/new owner divergence would persist, of course, but by continued use of transfer meta-marking (“avbrottsmärkning”, Sw) of earmarks (using a number of small extra nicks to indicate the termination of validity of the original mark) this can be dealt with, and when combined with re-assignment of the micro-chip number to the new owner in the a computer database, the result could bring with it the improvements we have already discussed.

Yet despite the potential gains to be made by complementing earmarking with micro-chip tagging, the herders that I have spoken to complain that such tagging would be yet another step in translating their traditional knowledge and practice into forms accessible to all. The more reindeer herding can be adequately performed according to Swedish rather than Saami terms, the less likely Swedish society is to defend special Saami resource rights, viewing them instead as unjustified, discriminatory privileges. In the long run, protection of the traditional Saami way of life, the fundamental protection against reindeer loss in its ultimate sense, might be better served by maintaining the current, somewhat complicated system – including the possibility of occasionally making fuzzy marking mistakes, along with the consequent stratagems and customs for enforcing community values – than by pursuing the relentless tide of modernization. Sometimes, indeed, the older ways are after all the best.

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