The marking of livestock in traditional pastoral societies

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Summary

The marking of animals has been practised in all pastoral systems since time immemorial. Using a series of examples representative of the major pastoral civilisations of the world, the author presents the techniques used (branding and ear incisions, either separately or in combination). In the light of the characteristics common to pastoral societies, the following points are analysed:

a) the manner in which the marks used by these societies have been conserved or modified in the course of vertical (inherited) or lateral changes of ownership
b) the content and meaning of the messages conveyed by the marks
c) the various functions of the marks, namely: collective or individual identification, establishment of rights, protection against theft. In conclusion, the mark of the lineage is seen as symbolic of the founding pact of the pastoral system, uniting a community of humans, a community of animals and a territory.

Traditional livestock marking systems are generally not used for health purposes. Moreover, the characteristics of these traditional systems are not compatible with the requirements of modern traceability. Nevertheless, these systems could be adapted, as is the case for the marking of the reindeer herds of the Lapps in Norway, which has been given legal value and has been made mandatory.

Keywords


Introduction

Nomadic herders have marked livestock from time immemorial. This practice, at least since the work of W.R. Smith (34) and A. Van Gennep (38), has aroused great interest among researchers in human and social sciences. Since the marks are transmitted relatively unchanged within lineages from generation to generation, they constitute a precious tool for studying the history and functioning of pastoral societies. Thus, these marks, their inventory and description, their meaning, functions, origin and transmission, have been researched extensively.

To obtain a general overview of livestock marking in traditional pastoral societies, the diversity of such societies must first be considered. To that end, the classification suggested by Bonne et al. will be adopted (11). This comprises five major pastoral ‘physiognomies’, which will be illustrated with examples chosen on the basis of their representativeness, and of course, the availability of information regarding marking practices. These are as follows:

a) the civilisations of the steppes, based on horses and bactrian camels, which extend throughout mid-Eurasia, from the Danube to the Huang Ho. Two examples will be presented, namely: the herders of the Republic of Tuva, in southern Siberia, north of Mongolia (37), and the Mongol civilisation, studied by Humphrey (24)
b) the Bedouin civilisations, which occupy the arid and semi-arid regions of the Middle East and Saharan Africa: Arab Bedouins of the East (38), Arab tribes of the Lake Chad basin (23), Toubus (1, 2, 12), Tuaregs (+) and Moors
c) the pastoral societies of Africa and Madagascar, civilisations based on the zebu (and, secondarily, on small ruminants, sheep and goats), whose area extends from the sub-Saharan Atlantic to the Indian Ocean (Peuls, Nilotics, etc.), and continues through the interlacustrine zone to Botswana and South Africa. In this paper, these societies are represented by the nomadic and semi-nomadic Peuls of Niger and Cameroon (18), and the Bara, agro-herders of south-western Madagascar (31).

d) the reindeer civilisations, which cover part of Siberia and the northernmost parts of Europe, illustrated here principally by the Lapps of Kautokeino (Norway), studied by Delaporte (14).

e) the mountain pastoral societies, a heterogeneous group that includes the Mediterranean societies of North Africa (Berbers), the Middle East (Turks, Kurds Pathans and other Iranians) and southern Europe (Saracatsans) where sheep farming dominates, yak-based societies of Tibet and, finally, the societies in the Andes based on local camelid species, i.e. llamas and alpacas. These are represented by the Baxtyārī nomads of Iran studied by Digard (16) and the Aymara herders of central Peru (various studies).

Permanent and temporary marks

Herders place two principal types of marks on their animals, on various parts of the body. The meaning and use of these two types of marks differ; indelible (though not necessarily unfalsifiable) marks, are generally considered to be signs of ownership, and temporary marks are useful in herd management. The text which follows focuses on permanent ‘ownership’ marks.

However, it may be of interest to mention briefly the temporary marks used by herders to facilitate the identification of an animal or group of animals that deserve particular attention, or isolation from the herd for specific measures of surveillance, care, trade, sorting and allotment, which form the basis of pastoral labour. Animal recognition is based primarily on physical characteristics, namely: size, morphology, shape of horns where applicable, and especially coat colour, the descriptive vocabulary for which is extremely rich and precise in pastoral societies. Thus, the Nuer, Nilotic herders from the Sudan, use several hundred terms to describe zebu coats, and these terms are associated with others that describe horn shape, to which prefixes denoting sex and age are added, creating thousands of potential combinations (19).

All available markers – termed ‘remarques’ by shepherds in France (25) – are used, and herders artificially broaden the range by using specific ornaments such as pompoms, ribbons, collars and bells.

Temporary marking involves the following different techniques:

a) shaving the coat or fleece with a knife or scissors, to create an individual sign (e.g. traditional ‘floques’ and partial shearings in southern France [26]) or a veritable system of signs, often with multiple meanings, as practised for example by the Lapps (14) (Fig. 1).

Fig. 1
Marking of a young reindeer by a Lapp herder from Kautokeino (Norway) and examples of marks placed on fur (14)

b) imprinting a coloured mark on the animal, using firebrands, colouring sticks or dyes. Once again, these may be simple marks, for example the nomadic Baxtyārī of Iran mark rams during the mating season with a brown dye made from oak bark (Digard [16], p. 66), or more elaborate signs, for example, using branding irons soaked in dye (sometimes the same irons used for hot iron branding) (Fig. 2).

Another traditional practice is the use of branding irons for temporary marking; the red-hot iron is applied lightly and briefly to burn the coat but not the skin. This is how the Mongols mark the horses they wish to sell, and which could not be sold if permanently branded (Humphrey [24], p. 478).

Fig. 2
Branding iron and ownership mark on the fleece of sheep for transhumance (Alpes-de-Haute-Provence, France) (25)
Marking techniques

Two principal marking techniques exist, both of which have been practised since ancient times, and are practically universal.

Fire-branding

In use since the Neolithic Period (Fig. 3), fire-branding was used by the peoples of antiquity (Egyptians, Hamitic or semi-Hamitic peoples of East Africa, nomads of Turkey and Central Asia) as well as by many nomads of Bedouin culture from Arabia and Africa (the Arab groups which, via the Nile Valley and the Sudan, or across the Sahara Desert from Libya, reached the Sahelian region and Lake Chad and, in Bornu, conserved the wasm tradition), Moors, Tuaregs and Tubus.

Fig. 3
Image of a bovine carrying a mark on the cheek, from a Neolithic fresco in Tassisi-n Ajjer (site of Ouan Derbaouen, circa 3,000 BC) (32)
Note the similarity with wasm number 11 in Figure 5

Different types of irons are used, separately or in conjunction, from the most rudimentary (a rectilinear iron, or even a red-hot awl or knife blade) to the most elaborate (irons forged in the shape of the brand). The result is a wide variety of graphic forms, combinations of lines and points, curves, more complex signs, etc. (Figs 4 and 5).

When choosing brand location, several criteria are considered, the most important of which is visibility: ‘The Bedouin burn the wasm onto the body part where it will be most visible, that is, where it will not be covered by hair or wool; sheep, for example, are branded on their face, ears and legs.’ (Wetzstein, 1877, quoted in Van Gennep [38], p. 87). A secondary concern is to damage the hide as little as possible: brands are placed on the bridge of the nose, the cheek, neck, shoulder, thigh or leg, or more rarely on the flank or the belly (for example, by the Daza of Niger) (1). The Tuaregs ‘mark their camels, on either side, on the head, under the eye, under or behind the ear, on the neck, and sometimes on the buttocks, whereas cattle are almost always branded on the thigh’ (Bermus [4], p. 10).

Brand location is never chosen haphazardly, but neither is it absolutely constant. Even the choice of right or left is not necessarily significant. Location may vary according to the person performing the branding, the animal species, etc. It may also differ according to whether the mark is an initial or secondary brand. Often animals display several brands, reflecting the individual history of the animal or that of the group the owner belongs to: ‘The Tuareg brands his animals with the sign of his paternal clan. At times, he adds that of his maternal clan or the clan of another ancestor, thus constituting
a personal sign. He generally does this only after the death of his father, as the latter would be offended if the protection conferred by the sign of his clan were considered insufficient… [He may also add] either the sign of the clan of his wife, or the sign of the clan with which he lives and whose protection he seeks. Thus, certain camels have brands on all parts of the body, and, if they have been stolen two or three times, they are entirely covered by scars (Chapelle [12], pp. 360-361).

**Ear incisions**

Ear incisions are the preferred marking technique of herders in Africa and the agro-herders of Madagascar who raise zebus and small ruminants (Figs 6 and 7). Despite their well-known claim to be of Arab origin, the Peuls use marks totally different from those of their supposed ancestors. They do not brand with a red-hot iron, but use a knife to cut notches, very simply shaped, in the ears of their livestock […] The marks, known as dyelgols […] are performed on the ears of both large and small animals, including sheep, goats, and cattle. The incisions are made on animals of one or two years of age (Dupire [18], p. 124). This marking technique is used much less by the M’Bororo herders of the Adamaua Plateau (Cameroon) than by their cousins of the Sahel (J. Boutrais, personal communication).

![Fig. 6 Ear marks (sofin’draza) found by Elli (1993) in the region of Ivohibe (Madagascar) (31)](image)

Herders from Madagascar have greatly refined this technique (7, 28, 39). According to Birkeli (7), this very ancient custom originated in India and dates at least from the Veda, written between the 16th Century BC and the 8th Century BC. In particular, the Anthrava Veda, indicates the rules for marking and recommends the use of a copper tool to perform the task. The Lapps also use a very sophisticated version of this technique on reindeer. The practice was researched in great detail by Delaporte in Norway (Fig. 8).

**Combination of techniques**

Branding and ear incisions are often associated, to such an extent that this combination, which is probably the result of cultural mixing between pastoral groups of different traditions, appears to be more widespread than either technique taken separately. The earliest reported example of this, to the knowledge of the author, is that of the nomads of Tuva, a republic in the Russian Federation, located in southern Siberia, to the north of Mongolia, and studied by Vainshtein (37). In the late 19th and early 20th Centuries, the Tuva herders continued the tradition of marking horses and, more rarely, marking riding cattle, with the sign of their clan using a red-hot iron (tangma). Certain patriclans, descended from ancient Tuvinian peoples such as the Kirghiz, used marks from a very ancient tradition. One such mark was found at the site of Karasuk, in the Minsinsk Basin, in rock engravings dating from approximately 3,000 years ago. Inscriptions etched on Tuvinian monuments of the Yenisey Valley, dating from the end of the first millennium and attributed to the Kirghiz, represent more
threatened Egypt, thereby winning the respect of the latter country. The Scythians created a dynasty in India in the 1st Century.

In the north, reindeer herders of the Todza region, just as those of Tuva, use both branding and ear incisions to mark animals. This practice is common to all reindeer herders of Siberia, and to the Nganasan who live further north (ibid., p. 102).

Amongst the Mongols, who herd the ‘five domestic animals’ (horses, camels, cattle, sheep and goats), only horses, and occasionally camels, display the tamgu (plural: tamaga). The other animals have ear incisions (Humphrey [24], pp. 477-478). In Iran, the Baxtyäri nomads also combine, on sheep, goats and cattle, the use of brands, on each side of the bridge of the nose or on the ears, and ear incisions (Digard [16], p. 66) (Fig. 9).

The herders of Tuva simultaneously practised another marking system, the im, a combination of incisions and circular cuts in the ears of sheep, and sometimes horses, forming motifs specific to the different clans. The Kazakhs, for example, used this technique in the years preceding World War II. The same custom can be traced back, in the Altai, to the nomadic tribes of the Scythian period, 6th-1st Centuries BC, thanks to the discovery, in tombs at the site of Pazyryk, of horses marked precisely in this way (Vainshtein [37], pp. 101-102). A people of Iranian origin, the Scythians crossed the Caucasus in approximately 700 BC and colonised the steppe up to the confines of China. They subjugated the Medes (Iran), ravaged Assyria (Iraq and Syria), continued as far as Palestine and

A similar association may be observed between the two major marking techniques used by the Tuaregs, probably owing to their contact with the Peuls. ‘Herders who principally use the branding technique may at times incise the ear of a camel in addition to branding it, and cut the ears of their small animals alone’ (Bernus [4], p. 8). Some Arab groups of Kanem, who brand the wasm onto their dromedaries, also incise the ears of
cattle or, as is the case with the Tujur, sheep (Hagenbucher-Sacripanti [23], p. 376). Conversely branding is sometimes performed by the semi-nomadic Peuls of the Sahel, a practice borrowed from Tuareg, Hausa or Arab neighbours (Dupire [18], p. 125). The same phenomenon has been observed in some Tubu clans, such as the Azza Bogordo of Niger (Baroin [1], p. 66). In West Africa, it is common practice, e.g. amongst the Masai.

In the Andes, various marking practices were introduced by the Spanish in the 16th Century, following the Conquista, namely: branding (hierro), used mainly on cattle and sheep, ear incisions (muesqueso) on llamas, alpacas and sheep, and the use of ‘remarques’ on the fleece (pompoms and partial shearings).

These marking techniques currently co-exist with an indigenous identification technique which dates from the pre-Colombian era and involves yarns of different colours (cintillos or reatillos) which are tied to the auricle. This system, halfway between a temporary and a permanent mark, allows owners to identify the animals from afar when herded collectively; it may also be used for animal husbandry purposes, e.g. to indicate the year of birth of an animal or other information. Collars (huallcas or walisas) are also used for identification (30).

**The choice of animals to mark**

The degree of strictness of traditional rules as to the species and individual animals to be marked increases in parallel with the religious or magical value attached to the mark. The aim is to distinguish those animals considered by custom to be worthy of displaying the mark. In contrast, where the economic function (for example, protection from theft) takes precedence over the socio-cultural function, marking is less selective. In such a case, marking may theoretically concern all animals, age allowing; it may even be made compulsory.

The variety of rules and techniques used creates a very complex picture. Depending on the civilisation under consideration, bovines, camels, reindeer, llamas, alpacas, horses, donkeys, goats and sheep are all eligible for marking.

According to Van Gennep (38), ‘Horse-breeding peoples, such as the Kirghiz, the Cherkez and many others, always mark these animals, either on a hoof, or on the lower leg (p. 87). The Mongols, for their part, only mark certain horses, and according to Upton (1881, quoted by Van Gennep [38], p. 86), horses were never marked in Arabia.

Small ruminants, sheep and goats are less frequently subject to branding, because of their fleece which makes the operation difficult and may hide the mark. However, these animals may be marked on the head or limbs, as mentioned above. According to observations made at the end of the 19th Century by Wetzstein, who studied the Bedouins of Syria and Palestine in particular, ‘all the animals of a tribe display the sama: goats, sheep and camels, with no exceptions’ (1877, quoted by Van Gennep [38], p. 86). Ear incisions are common practice for marking sheep.

The Daza and the Azza of Niger systematically mark dromedaries, more seldom cows, and only exceptionally donkeys. Herders justify this distinction by the fact that the former stray farther afield, and get lost more easily (Baroin [1], p. 6), especially when the male is rutting.

The rules are not always strictly enforced, and sometimes animals of lower rank are marked as well. Thus, amongst the Tuaregs (who mark all their camels) even the donkey, a carrier of water, ridden by the humble and notably by women of modest or subservient condition, an animal which wears neither saddle nor a canopy, may bear the mark of the clan: ‘If donkeys are sometimes branded, it is so they may be found if stolen, thanks to the ejwal (mark of ownership). Donkeys seldom have a name; people only show interest in them when they are missing’ (Bernus [5], p. 30). In contrast, the horses of the Tuaregs are not usually marked (33).

However, where the rules are more strictly observed, certain animals are ineligible for marking. Thus, amongst the Bara, in South-western Madagascar, cattle which are bought, and which do not come from the lineage herd and do not belong to it, cannot be marked (Saint-Sauveur [31], p. 123). In particular, the cattle used to draw carts, which, [as opposed to those of the clan’s herd] are in daily contact with men, are not considered to be zebus worthy of wearing the clans ear mark or of being sacrificed [to the ancestors]’ (ibid., p. 158). Blanc-Pamard (8) offers an additional explanation: ‘Draft oxen do not come from the herd, but have been bought. The treatment (blows, pinching and screaming) inflicted on them to make them ‘gallop’ cannot be applied to herd animals, which have an ear marking, as that would be tantamount to mistreating the ancestors, their owners.’

**Genealogy of marks**

**Social segmentation and mark continuity**

In traditional pastoral societies, the importance of mark preservation via inter-generational transmission is directly related to the fact that, for the most part, these societies are segmentary; the rules governing filiation, residence and marriage lead to the division of lineage structures into a series of sub-units, from tribe to nuclear family, including several intermediate types of lineage segments (fractions, clans, etc.) for which no general nomenclature exists.

The political functioning of these extremely ‘fragmented and acephalous’ (éminettes et acéphales) societies, to quote Bazin (3), is based on a dynamic equilibrium between structurally equivalent units, which prevents the emergence of chiefships with broader powers. This labile social structure
favours the dispersion of lineage segments, which is a means of both optimising the exploitation of pastoral land and of minimising the food, health and political risks. The ceaseless interplay of multiple oppositions and armed conflicts between units of equal rank is accompanied by a permanent and opportunistic recomposition of alliances at various levels, depending on circumstances, although a disassociative cohesion can always be reconstituted if the need arises, as evidenced by the famous Bedouin proverb: ‘Me against my brother, my brother and I against our cousin, all together against the foreigner’ (17).

In this context, the marking of animals assumes meanings and functions in relation to lineage and clan identities, to systems of alliances, to systems of rights regarding the use of pastoral land and animal ownership, and to protection against theft.

The genealogy of marks is thus of great importance, as the meaning and function of a mark depend on the rules governing inter-generational and inter-group transmission. In this context, the basic rule is simple: a collective mark is transmitted, theoretically unaltered, from generation to generation within a clan. When this rule is strictly observed, signs are preserved very effectively. Thus, Vainshtain (37) explains that the only differences observed in the tangma between different Tuva nomadic clans consist of minor details or added features, which accounts for the preservation of these marks over several millennia (ibid., p. 101).

However, in many cases the rule is less strictly observed, or has been modified over time. Two different but superimposed phenomena tend to undermine a strictly vertical and intangible transmission of the mark. The first, that of differentiation or individualisation of marks within a lineage, can be considered an intrinsic part of the system, since this is the principle that has served to generate a variety of marks, without which the system would be meaningless. The second is the adoption of a mark by groups from another lineage.

**Differentiation and individualisation of marks**

The process of differentiation generally occurs with the dispersion of lineage segments: The Maada used to live with the Foctoa and shared the same mark. When they separated, they could no longer distinguish their animals. Neither could they agree on the clans that would keep the old mark, until an elder put an end to the dispute by inserting a dot in the middle of the errigeri of the Maada to distinguish it from that of the Foctoa’ (legend from Tibesti, reported by Kronenberg, 1958, and quoted by Baroin [1], p. 32). In general, ‘the clan fraction that leaves customarily modifies the mark of the clan, while very often keeping the name’ (Le Rouvreur [27], p. 429).

As divisions and regroupments lead to the introduction of former individual marks into the group or the combination of several former clan marks, a progressive differentiation of new marks occurs, the shape of which generally is a more elaborate version of an ancestral mark (Fig. 10). In brief, ‘social segmentation is expressed in animal marks by an alteration of design (addition, or more rarely, elimination of an element, modification of the respective positions of parts of the figure), which generally preserves the overall shape of the wasm’ (Hagenbuecher-Sacripanti [23], p. 357).

**Fig. 10**

Differentiation of camel marks within Tuareg tribes of the Azawagh Valley (Sahara desert, Nigeria) (6)

Mark individualisation is another aspect of the same development. The mark of the clan may, if necessary, be supplemented by a second mark, specifying the owner of the animal. Amongst the Bedouins of Arabia, for example, when a herder put his camels to pasture with those of his parents, ‘to avoid confusion he often adds to the familial wasm a distinctive sign, this sign is called a sâhid’ (Huber, 1891, quoted by Van Gennep [38], p. 87). In principle, the herder abandons his sâhid when the mark is no longer useful, and keeps only the family wasm, for example, when his father dies. However, if the family group splits, the sâhid may become an integral part of the wasm, thus creating a new mark, whose history can be reconstituted.

The same applies to the Tuaregs; the principal mark of a family – and, more broadly, of a tribe whose members have the same name and, according to tradition, have a common ancestor – may receive an additional mark. This additional mark, intended to indicate ownership by a specific family or a rich herder, is called an enmaghad (33) or an azelou (Foucauld, quoted by Bernus [4], p. 8), a term probably derived from the Arabic azula (from the verb ‘azula: dissociate, distinguish), with which the Arabs of Kanem designate this additional mark (Hagenbuecher-Sacripanti [23], p. 357).

The system of Mongol tamaga is quite particular in that it both preserves the sacred mark of the clan and provides individualisation for each owner, due to an elaborate system of primary and secondary marks which will be described below.

**Exchange of marks**

In parallel with this ongoing process, a fraction or a lineage may adopt the mark of another lineage when justified by a convergence of interests: a regroupment of previously separated fractions, conclusion of an alliance, the need for protection, etc.
Thus, amongst the Tubus, ‘ownership marks are not only inherited. Each is free to adopt the mark of a rich or influential man [whose protection is sought]. Blood brothers combine their marks, and one can also acquire marks by marriage’ (Fuchs, 1961, quoted by Baroin [1], p. 8). Amongst the Bara of Madagascar, a man whose maternal clan is more prestigious than his paternal clan may adopt the mark of the former. ‘His children will cut the ears of their cattle using the mark of the wife of their paternal grandfather’ (20).

Amongst the Arabs of Kanem, two lineages that use the same mark maintain a pact known as a sirr, an Arabic word meaning ‘secret’. The allies (serâr) are required to keep each other informed of the state of the wells and pastures in the region, as well as of the movements of neighbouring fractions. Mutual assistance is also compulsory when searching for stolen or lost animals, and military aid must be provided in conflicts except those involving family members of one of the parties; in the latter case, blood ties take precedence over the sirr (Hagenbucher-Sacripanti [23], p. 359).

Thus, family ties and alliances often lead to the use of similar marks. The same is true for ties of vassalage. Thus, amongst the Arab tribes of Kanem, ‘the use of the same wasm by two groups usually indicates a near or distant family tie, or else a relationship of dependence and protection between vassals and suzerains’ (ibid., p. 356). The same can be observed in the Tubu group; the Azza, who were not originally herders, but rather craftsmen (by caste, they are the ‘blacksmiths’ of the Daza), do not have their own marks. They use those of the Daza clans to which they were vassals (Baroin [1], p. 8). In Madagascar, slaves marked their cattle with the mark of their master, or with a special mark that indicated their status (Molet [28], p. 19). Amongst the Mongols, families of serfs may use the marks of their master, but the marks must be placed on the lower body of the horse (Humphrey [24], p. 486).

In general, the use and exchange of livestock marks illustrate the system of political alliances and mutual assistance, which in turn constitutes the identities of pastoral groups. For the Mongols, the equine herds and the system of marks they bear are a magnified reflection of human society (24).

Given the extreme functional complexity of nomadic groups, the fragmentation of lineages and their regroupment in heterogeneous conglomerates, the superimposition of successive alliances, the weight of cultural influences all contribute to the weakening of the meaning of marks, and the rules governing their use. The growing complexity of the resulting system of marks makes the system increasingly difficult to interpret, which points to the dilution of sociocultural group identities. However, when the vicissitudes of nomadic life bring together two groups that share the same mark, this discovery generally creates a feeling of proximity and solidarity, which is all the stronger when the sizes of the respective groups are small (Hagenbucher-Sacripanti [23], p. 376).

Semiology of marks

Before examining the meaning of the message transmitted by a mark, it is important to ask to whom it is addressed. Many authors hold that the owner, and his people, are perfectly capable of recognising their animals, and thus do not need marks. It follows that the messages are addressed to third parties alone.

This conclusion is supported to a great extent by the observations detailed in this paper. Nonetheless, the exception may be when a herder owns very many animals, especially when these animals show few distinctive traits (certain races of sheep and reindeer). In this case, marks may help the herder recognise his own animals. For example, through marking, herdsmen in Peru can keep track of their llamas and alpacas from afar, when they are intermingled with other herds on collective pasture lands.

However, as a rule, marks are addressed to third parties, or at least those that are capable of understanding their message. In practice, this means the members of the pastoral society in question, and their near neighbours. In Mongolia, for example, the messages conveyed by the tamaga on horses are firstly addressed to the (Mongol) outsider riding across the barren steppe, with no boundaries or reference points, and who, using the marks, can tell the identity and social status of their owners, and thus the rights of usage that structure the pastoral territory being crossed. The tamaga messages are also addressed to the relatives and allies of the Mongol herder, and serve as acknowledgement of his origins, bonds of solidarity, social status, and the role he is expected to, and accepts to play in society (Humphrey [24], p. 485).

Some marks issue a very precise message to the third party, for example, a menace such as ‘turn back and let me proceed’, ‘trap’ or ‘if you touch this you will be defeated or will meet your death’ (Sibdiga [33], p. 38).

Finally, the message is addressed to the spirits, with the aim of placating the favourable spirits to win their protection, and of keeping the evil spirits away from the herd.

A rudimentary heraldry

What is the meaning of the marks traditionally placed on livestock? Be they the tangma or tamga of the nomads of Central Asia, the Armenians and Turks, the nisän of the Persians, the wasm (or osum) of the Arabs, the ejwall (or chouhâl) of the Tuaregs, etc., the answer appears to be the same; The wasm is a sort of coat of arms, and the names by which the wasms are designated constitute something akin to the terms of a rudimentary heraldic vocabulary (Van Gennep [38], p. 93). Ear marks have the same meaning as brands; ‘The herders of Madagascar, like the Peuls, practice marking by incision, by notching or cutting the ears of zebus according to designs that represent the family
blazon’ (ibid.). This mark ‘is equivalent to the coat of arms that each master passes on to his heirs, the antiquity of which is a sign of nobility’ (Molet [28], p. 19).

The next question is to whom these coats of arms, or blazons belong? In general, the mark, in pastoral societies, represents the sign of a relatively extended lineage community, designated by most authors by the term ‘clan’. The same applies to the Bara agro-herders of Madagascar, who call their marks sofin’drazà, literally ‘the ears of the clan’ (Saint-Sauveur [31], p. 123).

In social systems undergoing constant differentiation and recomposition, marks constitute essential reference points for the herders themselves. The marks are also invaluable to researchers who wish to retrace the genealogy and migrations of the groups concerned and to study the functional parameters of pastoral societies.

The symbolics of marks

The motif of clan marks is sometimes but not always figurative. However, marks always have a name which may refer to the object represented or a symbol associated with the sign, or is evocative of the history of the clan. The meaning attached to the sign and/or the name of the sign is often a reference to the beneficial effect that the mark is thought to have on the herd or flock.

The principal marks used by the Tuaregs invariably represent animal tracks (e.g. a bustard, gazelle, or snake), familiar objects (e.g. a hammer, spoon or drum), shapes of the night sky (a full or crescent moon), Tifinagh or Arabic characters (Sigdiga [33], pp. 37-38) (Figs 11, 12 and 13).

Among the Sakalavas and Bara of Madagascar, what the mark depicts (valy sofy, the ear incision) bears a name that is evocative of a glorious episode in the history of the clan or alludes to a characteristic of the herd that the mark is thought to encourage, for example tsiimagdeboosa ‘that does not let the grass grow’, marolahy ‘many males’, etc. (Saint-Sauveur [31], p. 123) (Fig. 6).

The tamaga of the Mongols are often depictive and in this case bear the name of the objects represented. These are generally objects associated with positive values. For instance, the Y mark represents the nasal cleft of the camel (büğila), which is small in size but great in power since it leads the camel, in addition the camel is afforded sacred value because of its elevated position above ground level. The mark representing a spindle (crūdīl), whose belly grows larger and larger, is a sign of fertility.

In other cases, marks are derived from existing systems of signs – letters of the Tibetan or classical Mongol alphabets, various
Religious and/or magical value of marks

Among the Tubus, livestock is marked principally to avoid theft and as such would appear to be a purely technical operation – ‘Everyone marks their own camels themselves when they acquire them, without any special ceremony’ (Le Cœur, quoted by Barnoin [1], p. 6).

However, this is not always the case, and the religious character of ownership marks has been emphasised by various authors. According to Van Gennep (39), marking of oxen among the Sakalava herdsmen of western Madagascar, is at once ‘a ritual act, a consecration and the imposition of a taboo’ (p. 193). The marking operation is rooted in a complex network of meanings, the most important of which is the link with the ancestors of the clan. An interview recorded by Roy in 1964 in Sakalava country (quoted by Fauroux [21], p. 104) is particularly explicit on this topic:

‘Money comes into your pocket today, tomorrow it will be somewhere else. It leaves no imprint or colour. With the oxen, we can preserve the sofandiraza [the earmark of the clan]. And the value of the mark is strengthened the greater the number of oxen that bear the mark in the corral. People will say: “Oh, so-and-so is not dead. A great many oxen bearing his mark have been brought for the ceremony” [...] With money, you cannot have the earmark of the ancestors and even if you have thousands of notes, they cannot be seen and that does not pay tribute to the ancestors from whom we have inherited the mark. Through the oxen, the mark of the ancestors is eternal. Even if we buy a cow that is already marked, we wait until it gives birth and the young are given the mark of the ancestors, not that of the mother-cow [...]. In any other context, money can replace oxen, but not in regard to the ancestors [...]. That is why, as long as we shall continue to invoke the dead, oxen will not disappear from here [...] We peasants prefer oxen to money, because the ox is honour (voninahitra), adornment (haingo), protection (fiarovanana) and a means of labour (fisana).’

Among the neighbouring Bara people, the religious and magical role of the herd of the clan predominates over economic functions. Subtly unravelling the strands of intertwined meanings, de Saint-Sauveur offers an interpretation of this role as being governed by a double mediation (31). For the Bara people, the herd is a mediator between the society of humans and that of the spirits of nature and the ancestors of the clan. The principal purpose of the livestock breeding system is to associate the zebus as closely as possible with, on the one hand, nature and its spirits, and on the other, the ancestors and their territory. The ideal place for this association is the tanin’ao姆by [literally, the land of the oxen], where the ancestors are buried and where the trees shelter the spirits of nature [...]’ (ibid., p. 159). Through its herd, the Bara clan renews the foundational pact between its ancestors, whose mark is borne by the animals, and the natural spirits of the site, thus reasserting its control over the inherited territory. The desire to control the land in this way is not accompanied by a wish to artificially alter the land. To the contrary, the intercessory role of raising livestock can only be completely fulfilled on a territory that has been practically untouched by humans. Hence, ideally, the pastoral territory should include natural forest formations where the animals can take shelter out of the sight of humans and are left in a semi-feral state (Saint-Sauveur [31], p. 159).

Among the Peuls of Niger, this [marking] operation is steeped in a complex magical context that bestows a meaning far broader than just the recognition of ownership’ (Dupire [18], p. 130). The purpose is both to place the animals under magical protection, in particular against death, and to promote the fertility of the herd. In the Sahel, the changes that occurred in the 20th Century contributed in many cases to the weakening of the social value of traditional marks, which as a result are sometimes stifled by their magical value. In this case, a mark is reduced to a sort of talisman whose purpose is to ensure the prosperity of the herd and hence of the human group that depends on it, and its interpretation is readjusted on the basis of these magical implications. The most visible consequence of this is that marks can be changed. As the mark itself is thought to have an influence on the fate of the herd, it is logical that if the herd were to come to any harm, due to disease for instance, the owner would try to exchange his mark for one of a more fortunate neighbour (ibid., p. 136).

The result of an astonishing syncretism between the culture, religion and techniques introduced by the conquistadors and those of the indigenous populations of the Andes, the ceremony of the marking of llamas and alpacas is considered to be one of the most powerful expressions of the ancient cultural legacy of these populations. The Señalalhuay feast (the Quechua adaptation of the word Señalalha, itself deriving from the Castilian verb señalar, to mark) is the occasion, in particular among the Aymara herdsmen of Peru, for a series of pastoral ceremonies and rites that have been extensively described and researched by anthropologists (13, 36). The peculiarity of the feast is the association between marking (by incision of the ears) and breeding the animals. The female camelds of the Andes have a special physiological feature – mating triggers ovulation, and this can occur in any season when the female is approached by the male. Hence each family of herdsmen can organise a great feast on a fixed date every year, during which a number of male and female animals attached in twos mate before the guests that gather round. Unmarked animals can be marked, sometimes as they actually mate. This ceremony involves numerous, complex rites, prayers and sacrifices to the Apus, the divinities of the mountain (15).
Function of marks

An identification sign

The primary function of a mark is identification. The mark, together with the name of the clan, is an essential element of identity in pastoral environments, particularly amongst nomads, because of the constant change of spatial landmarks and the dissemination of lineage segments. The mark is a proof of this collective identity, and the actual marking process is in many cases experienced as the assertion of that identity. This is the case for instance among the Tuaregs with the ejwal, the sign of the tawsit, the common tribe from which those who share the same ejwal all descend (Bernus [4], p. 17).

The association between humans and animals is the very foundation of pastoral systems, and applying the mark on the animals recalls that the latter themselves are members of that community. The marked animal ‘is of’ such and such a clan, rather than being the property of it. It is a constitutive part, rather than a possession, in this hybrid, highly original lineage group that the Wodaabe Peuls of Niger call Dudal (9). Hence, the identity of humans and that of animals, questions that have been dissociated in the modern world, are traditionally resolved in the same way, by their belonging to the clan.

Perhaps the same interpretation applies to the custom of marking slaves and captives with the wasm, a custom that probably originates in ancient Arabia and which was still common practice in Sudan and central Africa at the beginning of the 20th Century (Van Gennep [38], p. 86). As an assertion of the membership of the animal to the clan, marking also recalls the ritual scarifications that some peoples inflict upon themselves. These also enable the tribe of the scarified person to be identified at a glance.

Although a mark always conveys a message of identity, the content of the message is generally crude, but varies according to the system considered and is occasionally very refined. The sophisticated marking system used by the Mongols and described by Humphrey contains a wealth of semiotic detail (24). For the Mongols, a man without a horse is a nobody. It is the horse, through its physical features, gait and temperament, but also the mark (tamga) the horse bears that confer identity and social status on a Mongol (ibid., p. 485). Indeed, the mark publicises detailed information about the individual; in addition to the clan he belongs to, designated by the primary mark (the tamga itself), it provides information on his paternal line, the eldest or youngest branch of the family he belongs to, whether he is of noble, common or slave extraction, and also on his religious or lay status (ibid., p. 471).

The system is based on a series of related marks that are derived from a primary mark designating the clan (Fig. 14) which is then combined with other marks some of which are called complementary marks. These cannot be used as primary marks.

![Fig. 14](https://example.com/fig14.png)

**Fig. 14**
Examples of Mongol marks (tamaga) found by Gochoo in the mid-20th Century (24)

(Fig. 15). The complementary marks have both syntactical and semantic properties. For instance, the ‘throne’ mark indicates that the owner descends from the eldest branch of his lineage, since this line, in the primogeniture system, is the one that inherits the images of the spirits of the ancestors that sit on the throne. Some of these marks, such as the ‘thumb’ and ‘tail’, the ‘horn’ and ‘foot’, the ‘sun’ and ‘moon’, are associated by pairs, or in any case suggest the existence of another mark of greater or

![Fig. 15](https://example.com/fig15.png)

**Fig. 15**
Example of a series of marks derived from a primary mark by adding secondary marks: the ‘hammer’ series (24)
discovered in Syria

within a lineage, just as within a system of

described above). As such, the equation of these signs with

information in this regard (unless the mark is personalised as

exception of the Mongol system) provide any specific

individual. The mark of the clan does not (with the significant

not personal. Although marks are a means of asserting a right,

However, generally speaking, marks are essentially collective,

function other than ornament.

The princes (who descend from Gengis Khan through the

paternal line) mark their horses on the right-hand-side, whereas common people mark them on the left. Brothers by

the same father differentiate their marks by adding a sign

(rather than subtracting one which might bring bad luck to the

herd) and alter them as little as possible (they might simply move them to a different position).

The claim to a collective right

Marks on livestock are often referred to as ‘ownership marks’, which suggests a mistaken assimilation with the social and legal

system of ownership in industrial civilisations. The fact that

protection from theft is the function most often mentioned in connection with marks tends to aggravate the misunderstanding, because the traditional practice of livestock-thieving in pastoral societies has a quite different meaning from

theft in industrialised societies, as discussed further in the

section entitled ‘Protection from theft’.

Nonetheless, some genuine ownership marks do exist. The

marks studied by Delaporte amongst the Lapps are characteristic in this respect (14). The function of these marks is to indicate the individual ownership of each reindeer. Every

infant, boy or girl, receives his or her own mark, which is

chosen by the father of the child. Family herds that comprise

between one hundred and two thousand head of reindeer are

grouped together on communal grazing areas. Because reindeer

are semi-domestic, the animals are given very little supervision, which varies according to the season. Reindeer often roam and

the herds tend to mingle. As a result, the ownership marks play

an essential technical role (Delaporte [14], p. 7). For the

livestock breeders, the marks are the principal means of

protection against theft (see above).

The notches on the ears of llamas and alpacas have a comparable purpose in the Andes. The Aymara herders, like the

Lapps, assign an individual mark to all of their infants. The

young female animals offered as gifts are marked so that the

children can gradually form their own herd.

However, generally speaking, marks are essentially collective,

not personal. Although marks are a means of asserting a right, the right involved is collective rather than individual. Nonetheless, in most pastoral societies, ownership of animals is

individual. The mark of the clan does not (with the significant

exception of the Mongol system) provide any specific information in this regard (unless the mark is personalised as

described above). As such, the equation of these signs with

ownership marks does not appear to be appropriate.

Before elaborating the above point, it should be noted that it is

perhaps inappropriate even to refer to traditional clan marks as

being ‘livestock marks’, as is often the case. In many instances, these emblems are certainly marked primarily on the animals,

but also elsewhere. Thus, most of the wasm discovered in Syria

and northern Arabia were found carved on rocks, walls, pillars,

menhirs and dolmens, isolated stones, door frames or

architraves, the well stones [and in a single case, on a tomb].

The reasons given by the Bedouins for this custom of engraving

the wasm in this way vary somewhat. The explanation proffered

most frequently is that in this way the tribe asserts the right as

first occupant to use the adjacent grazing land, or the water in

the well or the spring for its herds, or to harvest crops’ (Van

Gennep [38], p. 89).

Field (22) and Chelhod (1958, quoted by Hagenbacher-

Sacripanti [23], p. 358) offer similar interpretations. According
to Chelhod, in the Middle-Eastern tradition, ‘the clan possesses

its own pastures, conferred upon it by customary law. Some

watering points also belong to the clan. To avoid the inevitable
disputes on this topic, the nomads leave their mark, the wasm,

on the well ledges, to attest the legitimacy of their ownership. It

is the same sign, the sign of the whole clan, that is branded

using a hot iron on the rump or neck of the livestock, to

distinguish it from the animals that belong to other clans’.

The Tuaregs carve out their ehoul on salt blocks, on the trunks

of the occasional trees encountered as they travel, on well

ledges, but also on tombstones and headstones (4). In many

pastoral civilisations, the marks of the clan are also found

engraved or drawn on a number of objects (knives, weapons,

harnesses, jewels, cigarette-lighters, tobacco pouches, chests,

stools, etc.), without it being clear whether they have any

function other than ornament.

Clearly, as stated by Hagenbucher-Sacripanti (23), ‘the actual

function of the wasm within a lineage, just as within a system of

alliance that is territorially delimited by the rights and

movements of nomads, goes far beyond questions of livestock

ownership’ (p. 358).

Even when engraved on rocks, trees or well ledges, it is wrong
to interpret the function of the mark as being a claim of

ownership of the territory marked in this way; in reality, the

concept of ownership is foreign to the logic of traditional

pastoral systems (17).

The legal structure of pastoral societies is a response to the

conventional problem of distribution of rights within a given

social organisation. Mirroring the segmentation of these

societies as nested lineage structures, a hierarchy of

differentiated rights exists in relation to livestock and grazing

resources. Hence, among the Bedouins of Syria, together with

the Baggara herdsmen of Sudan, all the descendants of a single

ancestor share the rights pertaining to a massive expanse of

territory. The various segments in this genealogy benefit from
stronger access and use rights over a smaller area within this territory (Behnke, 1985, quoted by Saint-Sauveur [31], p. 361). A large number of people therefore benefit from weak or secondary rights over a large area, whereas each subdivision of the territory is controlled by the strong, prevalent rights held by a small group (31).

The social unit that controls the access rights to a given pastoral area (a unit referred to as an 'access group') by Grandin, 1989, quoted by Saint-Sauveur [31], p. 361) may be a tribe, a fraction or a clan. All the Ngorongoro and Salei Masai of Tanzania in this way possess rights over the entire Masai territory, but they might be expressed, for instance, by allowing herds that have fled from the usual ranges due to drought to graze there. There is an informal hierarchy of access rights that reserves ordinary usage of the pastures and watering points in a given area to the community that is based there (Połkanski [29], p. 14). This local community is responsible for the day-to-day management of these resources, a responsibility incumbent on all its members. The distribution of access and use rights and the settlement of conflicts that arise on these matters remain in the hands of the 'access group'..

Similarly, the clan has loose rights over the livestock that bears its mark, as reflected in the powers conferred on the clan regarding questions of common interest and settlement of disputes relating to the animals. This right might, for instance, be expressed by redistributing the animals within the clan following a drought or an epizootic that caused severe losses. However, on a day-to-day basis, the predominant responsibility rests with the head of the extended family (for the practical management of the herds) and especially with the individual owners (for managing production in economic terms) (ibid., p. 36). In this respect, a contrast exists between the collective management of pastoral resources and the domestic management of the herds, but the overall rationale for allocating rights is the same.

**Protection from theft**

Protection from theft is a function almost always attributed to clan marks. (Such a reference is so commonplace in fact that it is surprising to note that no allusion is made to theft in the highly documented article written by Dupire [18] on livestock marks among the Peuls.) To fully understand the exact nature of this protection and of the mechanism that induces it, one needs to understand the traditional status of theft in pastoral environments. Livestock is the most valuable good in any pastoral society. It is a source of wealth and prestige, the only means whereby marriage can be contracted, and as such is very much coveted. The sole purpose of stealing livestock in the pastoral tradition is to enable the thief to increase the size of his own herd, which is the legitimate aim of any herder. The act requires courage, dexterity and pastoral skills and in the eyes of many herders, is noble. The socio-cultural value attached to livestock theft is typical of pastoral societies. Some authors attribute an outright social and economic function to theft – redistribution of wealth, dispersal of the livestock and a spreading of risks. On one hand, theft is seen as an act of bravery, a type of ‘initiation’ or rite of passage. On the other, it represents a constant risk and can become a true bane in some circumstances when it degenerates into large-scale, organised plundering (17).

Among the Tubus, for instance, ‘stealing animals outside the clan is not considered to be a crime, but rather a risky but normal way of acquiring wealth. Even today, this is the only means whereby many young men can obtain the many animals required for them to marry. It is also a way of gaining respect’ (Chapelle [12], p. 322).

In Madagascar, stealing livestock, a practice whose status is institutionalised and occupies a central position in the pastoral culture and mode of organisation, takes on the most sophisticated forms. These have been extensively researched. The ‘great robbers’, those who have gained wealth by robbery, are well-known and respected. According to a Bara proverb, ‘stealing [cattle] is the only gathering activity worthy of the strong’ (Randriamarolaza, 1986, quoted by Saint-Sauveur [31], p. 156). In the southern and western parts of the island, agro-pastoralists have to date maintained a customary system of village alliances and supervision of the land designed to protect themselves from theft by monitoring the wanderings of the animals. Each village is responsible for monitoring its own territory, based on keeping trace of the footprints left by the zebras at strategic locations. These kizo are checked daily and swept away (ibid., p. 155-157 and 331-333).

To avoid any suspicion as to the origin of cattle sacrificed during ceremonies in Madagascar, the head of the animal was displayed throughout the period of celebration, to demonstrate without doubt that the animal had not been stolen. Sometimes only the two ears were kept, joined by the band of skin in between, this was hung above the west canopy of the house, and could stay there for months or even years (Molet [28], p. 18).

In response to traditional forms of livestock theft, i.e. those performed by members of the pastoral community and which are part of the normal mode of operation of this community, a system for tracking stolen animals exists that calls upon networks of solidarity based on clan alliances and the customary rules for settling disputes. For the Baxtyäri, for instance: ‘Thieves come mostly at night [...] As soon as the herdsman has raised the alarm and once losses have been evaluated, the owner sets out to find his property. His rounds may last several days, even weeks if he has suffered considerable losses. He goes from camp to camp giving a detailed account of his story, in addition to bringing other news. He is given a warm reception everywhere, carefully listened to and sometimes informed of what people have heard or seen (occasionally in exchange for some money). In this way, the
is considered as definitive evidence in any dispute. Rev. sci. tech. Off. int. Epiz., 20

Thus, among the Peuls, marks are used to locate animals that belong to the rightful owner. An animal is large, such as a camel or cattle). Marking provides an additional descriptive element for the stolen animal but is not in itself proof of ownership (16).

In such a socio-cultural context, marking is clearly effective, to the extent that this anti-theft function sometimes appears to be the prime justification for marking. For the Teda and Daza people, marking animals is of great importance – it diminishes the risk of theft. These risks are particularly acute in view of the fact that for them theft is a normal means for acquiring both wealth and respect (Baroin [1], p. 4).

The relative security afforded by marking largely derives from its dissuasiveness, because the mark turns theft into a far more risky process. The trained eye of a herdsman can rapidly identify a foreign mark in a herd, whether on the ranges, in the camp, along a road, around a well or at a market. As a result of the mark, the owner is identified and the thief exposed.

An animal that goes astray generally ends up joining a herd that belongs to someone else. The latter has two alternatives; one is to seek the owner and return the animal to him, the other is to take advantage of this godsend and either try to keep the animal in his own herd, with the risk of being exposed if someone discovers the animal, in particular through its mark, or try to sell the animal, which also entails a risk (immediate slaughter, which removes all evidence of the crime, is not generally held to be a satisfactory solution for a pastoralist, particularly if the animal is large, such as a camel or cattle). Marking provides an incentive to opt for the first solution which is most favourable to the rightful owner.

Thus, among the Peuls, marks are used to locate animals that have gone astray, through relatives and allies who feel a duty to seek out the owner (Dupire [18], p. 136). Similarly, the tamga system, which offers Mongol herds both legal and magical protection from raiding, theft and fraud, also enables other people in good faith to identify lost animals and return them to the owner (Humphrey [24], pp. 476 and 485).

In regard to livestock thieves, the aim is prevention. The mark bestows the protection of the clan, and thus conveys both information and a warning to the potential thief. This is particularly explicit in the case of the Tubus: ‘The purpose of the mark is not to enable the owner to distinguish his animals from those that belong to others, because he could recognise the animals without the mark, but to deter thieves from taking animals belonging to a related or allied clan, or to a clan whose vengeance they fear’ (Le Cœur, quoted by Baroin [1], p. 5).

Such protection extends to the animals of vassals: ‘In exchange for protection and permission to adopt the marks of their animals, the Azza pay the Daza an annual fee’ (Grall, 1945, quoted by Baroin [1], p. 8). Consequently, the Daza protectors, under penalty of being treated as cowards, were compelled to try to recover, using arms if necessary, the livestock stolen from their Azza vassals (ibid., p. 2).

In Lapland, protection from theft is a central function of the system of individual ownership marks: Livestock thieving is a common practice among the Lapps of Kautokeino. Thieving usually occurs when herds mingle (generally accidentally, but sometimes intentionally provoked for the purpose), or when a reindeer strays and joins another herd. Typically, two types of thefts are committed, a marked reindeer is slaughtered and the meat consumed, or the stolen reindeer joins and thus enlarges the herd of the thief. Given the prestige attached to owning a large herd, the preferred form of theft is the latter, and also the better accepted. Unmarked reindeer [the animals are normally marked by the age of 6 months] are easy prey. The thief simply applies his ownership mark on his loot. If the reindeer has already been marked, the mark has to be forged (Delaporte [14], p. 8).

From the point of view of a thief, the ideal forgery is to be able to re-incise the ears of the stolen animal to replace the mark of the original owner with that of the thief. However, this is not always feasible, because herders choose ownership marks precisely after considering those of the neighbours, to prevent falsification. In this way, thefts were necessarily limited in number, and hence ‘reindeer thefts by falsification of ownership marks were relatively well tolerated by traditional Lapp society because they required the thief to have the very highly considered qualities of a good herdsman – thorough knowledge of the land and of the marks, great skill in cutting out the notches, etc.’ (ibid., p. 16).

Protection conferred by the mark against thieves arises from the legal value attributed to the mark by pastoral custom: ‘The word is considered as definitive evidence in any dispute relating to theft, raiding, animals that have escaped (which often happens [in herds of dromedaries] with rutting males), when a herd is dispersed due to a storm, etc.’ (Van Gennep [38], p. 88).
In Mongol culture, changing or choosing a new mark is forbidden. Alterations to existing marks and adoption of new marks can only be undertaken by those of the paternal lineage (changing marks is allowed in the event of a quarrel between brothers, an evil spell, etc.). The marks must be approved by a lama and registered by the local chieftain (Humphrey [24], p. 479). The magical power of tamga guarantees that they will be used honestly and that the information they convey is true (Mongol seals, which are of enormous importance in guaranteeing the authenticity of decrees, letters of credit, etc., are also called tamago). To falsify a mark is considered a crime (ibid., p. 485).

Mongol custom does not allow a horse marked with a tamgu to be sold or traded. Severe restrictions are placed on the use of these horses, which is why the princes in the 19th Century prohibited marking more than one in ten horses and one in three camels, for both economic and tax reasons (ibid., p. 480).

The value attributed to a mark by pastoral custom is only effective in the pastoral community. Recognition of the mark in law at a state level becomes important when it is necessary to do more than simply regulate the effects of traditional theft practices within the pastoral system. Hence, when livestock lifting degenerated into full-scale plundering among the Lapps of Kautokeino, the formerly customary ownership marks were given legal value. These marks have become mandatory, are officially recorded by the administration of Norway and can be used as evidence before the courts (Delaporte [14], p. 16).

Conclusion

This overview illustrates the extent to which branding and marking techniques, rules for handing down marks, their meaning and functions differ depending on the pastoral society and on the period involved. Moreover, a number of striking convergences and similarities are highlighted, as has been the case in many previous studies. Is this remarkable? Is it surprising that the range of efficient ‘solutions’ in organisational, legal, economic and other terms that have been devised over the centuries by pastoral societies on all continents is not unlimited, or that, to use the term of Bonte (10), they all make use of the same ‘technical formula’ – dissemination and mobility of the production units according to the state of natural resources?

The impressive strength of anthropological constants that have enabled many marking systems to survive through centuries, sometimes millennia, also raises questions. A tentative answer can be drawn from this study; the practice of livestock marking, as ancient as pastoral systems themselves, will continue for as long as these systems. As suggested by the ancient history and ubiquity of marking, the practice is rooted in the heart pastoralism and connected with the ongoing quest for the fundamental cohesion that must be established between the technical system, social organisation and management of a territory. The mark of the clan is the sign whereby, under the eye of the ancestors and spirits of the site, the clan asserts the foundational pact of the pastoral community, which unites the clan with the animal members of the community and with the territory whose resources it makes use of.

This overview suggests that while the marking system derives from an original system in which belonging to a pastoral community is a quasi-existential identifier, other pressures have often led to alterations to allow for greater personalisation and adaptations to changes in the social and economic environment. This generally coincides with some degree of dilution or dissolution of the pastoral groups into larger societies. The endogenous and specifically pastoral purpose of the mark as testimony of the pastoral pact is hence replaced by less specific objectives (such as prevention of theft when livestock-thieving loses traditional social significance as a pastoral practice and becomes merely plunder of owners), or even purely exogenous objectives, such as modern methods of individual animal identification which essentially meet the requirements of government control in modern states, namely: law abidance (economic, tax and especially health regulations), traceability of livestock breeding products, etc.

In many cases, the uses of marking in domestic life, far from becoming restricted, are diversifying, whilst adapting to modern lifestyles. Sibdiga signals the common use of ballpoint pens, pencils or felt-tip pens by the Tuaregs to leave marks on plastic, cardboard or paper (33). The mark is increasingly present in domestic life, on mail, identity cards or exchanged documents, thereby contributing to the continuation of this ancient tradition.

Appendix: note on game marking in Madagascar

Traditional marking of lemurs by the Sakalava pastoralists of Menabe is reported by Taillarda ([35], p. 5).

‘Hunting was for a long time an activity much appreciated by the Sakalavas because it allowed a very pronounced improvement in diet. Nonetheless, it is exercised with great care and rules governing it tend to preserve the most sought after species…’

The techniques used to hunt lemurs (sifaka, gidho) are (particularly) good illustrations of this desire to conserve populations. The hunting season is limited, extending from December to March. The mating season, lasting until November, is carefully avoided. Lemurs are captured alive using various methods. Sometimes the animals are sedated by the hunter who gives a large quantity of toa mona, a type of mead, to the animal. This induces drowsiness, making them
particularly vulnerable and easy to capture. There are other systems using mechanical traps, into which lemurs are lured by honey-coated bait and then caught by the waist.’

‘Some of these practices that are now falling into disuse were very precise game management tools. In all cases, animals were marked. Each clan had a distinctive sign, marked on the back, tail or ears of the animal, which was afterwards set free, then recaptured when there was a need or desire to do so. Only male individuals were hunted. Some clans castrated the males to allow the animals to fatten and later provide higher quality meat. Only two animals could be killed at each hunt. A hunt was considered a most exceptional event, that first had to be celebrated by a special ceremony…’

Acknowledgements

The author extends his warm thanks to Edmond Bernus, Chantal Blanc-Pamard, Laurence de Borneval, Jean Boutrais, Jean-Pierre Digard, Bernard Fulcrand, Anne-Marie Gogué, Philippe Lhoste, Armelle de Saint-Sauveur and Sylvia Trino da Silva for their kind and skillful support in helping prepare this article.

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