

The cultural heritage of pastoralism – local knowledge, state identity and the global perspective: the example of local breeds in Morocco

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Summary

Over the past few decades, the heritage designation process has come to impact on the way of life of many nomadic pastoralists across the world. Since the Convention Concerning the Protection of the World Cultural and Natural Heritage was adopted in 1972, policies for the conservation of protected areas have been implemented under the aegis of the United Nations Educational, Scientific and Cultural Organization (UNESCO), especially in countries of the South, with a varying impact on the practices and perceptions of pastoral communities. Heritage policies were further extended by the establishment of the list of Intangible Cultural Heritage (the Convention was adopted by the UNESCO General Conference in October 2003 and came into force in 2006) and the list of Cultural Landscapes (adoption in 1992, with the first site listed in 1993). This enthusiasm for heritage, which is felt by States and local communities alike, provides an opportunity to study the contradictions and changing perceptions of the nomadic and pastoral identity. In this context of wholesale heritage designation, it is interesting to examine how local knowledge – especially that on hardy animal breeds – is promoted and safeguarded. The authors focus on the case of Morocco, where the national association of sheep and goat breeders (ANOC) oversees breed selection and health policy for local breeds, in order to demonstrate that greater recognition of farmers' knowledge and their ability to identify hardy animals can ensure the sustainability of farms in both South and North from a socio-economic, genetic and health standpoint.

Keywords

Animal breeds – Heritage – Morocco – Nomadic pastoralists – North Africa – Pastoralism.

Global perspective: nomadic pastoralists and heritage

Expansion of protected areas

Over the past few decades, the heritage designation process has come to impact on the way of life of many nomadic pastoralists across the world. The creation by States of protected areas is probably the first major

heritage designation measure to have been studied by scientists. The establishment of the first national parks in the United States, in the late 19th and early 20th centuries, led to the displacement of Native American peoples that were still living largely in a pastoral economy and to the dispossession and denial of access to land they customarily used (1). In the late 19th and early 20th centuries, this movement spread to other New World countries under colonial rule containing vast swathes of land considered to be 'wilderness' (2). Since the Convention Concerning the

Protection of the World Cultural and Natural Heritage was adopted in 1972, policies for the conservation of protected areas have been implemented under the aegis of the United Nations Educational, Scientific and Cultural Organization (UNESCO), especially in countries of the South, with a varying impact on the practices and perceptions of pastoral communities. Two recently published studies describe various forms of opposition from pastoralists to the process of heritage designation and conservation of protected areas (3, 4).

In Niger, there have been growing clashes between pastoralists and political authorities over conservation measures for the 'W' National Park, especially since the park was listed as a UNESCO world heritage site. The decree creating 'W' National Park was established in 1954, shortly before the break-up of the federation of French West Africa. As from the 1990s, the government of Niger signed a number of international environmental protection conventions: the Ramsar Convention on Wetlands (1991), the UNESCO World Heritage Convention (1996) and, latterly, the UNESCO World Network of Biosphere Reserves (2002). These commitments have prompted the government of Niger to adopt a more stringent environmental policy with measurable performance targets, leading to 'ring-fenced' conservation of the park (3). Over time, the state authorities have increased investment without taking into consideration local stakeholders, i.e. transhumant pastoralists. Inevitably this has led to growing conflict and radicalisation among pastoralists, which, according to Amadou and Boutrais (3), need to be addressed by means of conciliation.

The listing of the Socotra Archipelago in Yemen as a UNESCO world heritage site in 2008 (4) served to exacerbate disparagement of the Bedouin identity by the island's pastoralists. Doubly marginalised – first as pastoralists in a predominantly settled society and, second, as residents of an island at the outer reaches of Yemen – the Bedouin of Socotra are unusual in having developed a narrative that associates the Bedouin identity with a form of abjection – in contrast with other parts of the world, such as Jordan, where the Bedouin identity is promoted (5). Nathalie Peutz views Bedouin abjection as an ironic dialogical critique of the 'global hierarchy of value' (6) engendered by the globalisation process, especially after the island was listed as a world heritage site and international organisations, international developers and tourism began to be involved.

Designation of pastoral culture as heritage

UNESCO and state heritage policies that have an impact on pastoral communities do not, of course, focus solely on the conservation of protected areas. Heritage policies were extended by the establishment of the list of Intangible Cultural Heritage (the Convention was adopted by the UNESCO General Conference in October 2003 and came

into force in 2006) and the list of Cultural Landscapes (adoption in 1992, with the first site listed in 1993).

Since 2008, when the first sites were included in the UNESCO list of Intangible Cultural Heritage, a total of 22 items relating directly or indirectly to pastoral and nomadic societies have been recorded (7). Of course, this figure does not include the many heritage processes instigated by local political authorities, associations, civil society and tourism. Interest in this issue has also been aroused by the United Nations Declaration on the Rights of Indigenous Peoples (adopted on 13 September 2007) (8). Article 31 of the declaration illustrates the rapprochements and clashes between stakeholders and between local and international regulations around the heritage issue. It legitimises indigenous peoples' right to control and protect their heritage and, in so doing, has reconfigured local, national and international heritage designation issues.

A final heritage trend is the listing of cultural landscapes. The UNESCO World Heritage Committee defines cultural landscapes as 'the combined works of nature and of man' and recognises their tangible and intangible components. With regard to agro-pastoral cultural landscapes, this includes both the local knowledge and expertise and the local animal and plant breeds to be preserved. A handbook has been published on the conservation and management of world heritage cultural landscapes (9), which stresses the importance of participatory management involving local stakeholders.

State identity: heritage policies, state ambivalence and revision of history

State ambivalence

Provided that it adopts a critical approach, the study of heritage designation in the context of nomadic and pastoral societies can serve to highlight the ambivalence and contradictions of States with regard to their responsibilities and to their own heritage, which is in part nomadic and pastoral. In Kazakhstan, which gained independence in 1991, the nomadic heritage is presented as the cornerstone of the national identity. Nevertheless, negative perceptions of nomadism and the pastoral life persist (10). This ambivalence had led to policies for promoting what are seen as mere emblems of nomadism – such as the yurt or horse – at the expense of the key issues: mobility and the current realities of nomadic pastoralism. For decades, the Sultanate of Oman, which was a British protectorate from 1891 to 1971, has implemented a raft of measures to safeguard

and promote heritage. However, initially pastoralist groups were excluded from these measures before being gradually reinstated in a bid to develop elite international tourism (11). This is nothing new in itself: the attitude of States to the nomadic and pastoral sections of their population has been the subject of many studies, particularly in the decades following their independence. The studies have shown that nomads and pastoralists are often seen as hindering the economic development of these new countries and as highly unmanageable because they are mobile and often ignore the arbitrary borders established in colonial times. However, the appetite for heritage, which is also shared by States, provides an opportunity to study the contradictions and changing perceptions of the nomadic and pastoral identity; heritage designation leads to a revision of history and a reappropriation of cultural elements, often by sanitising them (12). It has multiple effects, not only on nomadic and pastoral communities themselves but on society as a whole.

This process has become even more apparent since the introduction of the idea of intangible cultural heritage, which is not limited solely to the UNESCO list of Intangible Cultural Heritage.

Reappropriation

Many countries, states, regions, cities and local communities are finding their voice and using it for what they consider to be their heritage, which, while intangible, is nonetheless extremely valuable to them. It includes traditional festivals which provide nomads and pastoralists with an excellent opportunity to gather together people who are scattered far and wide the rest of the year. Although the future of the pastoral system is insecure, the festivals associated with it are still going strong and are even growing in importance. In some instances they subsist only as a culture 'industry' and are an ideological investment. This is the case in the Pontic Mountain pastures of the north-eastern Turkish department of Trabzon (13). Even though such festivals are designated as cultural heritage and are reinterpreted in the light of local concerns, pastoral and nomadic communities are adept both at exploiting this 'heritisation' and at defending themselves against it. A good example is *wa'ada*, a celebration to honour local saints in western Algeria (14). It is even more apparent in cases where nomads and pastoralists are heavily involved in organising such festivals, as in western Algeria. In the Pontic Mountains of the Turkish department of Trabzon and among the Fulani people of the Inner Niger Delta, outside influences are greater. In Turkey, the urban population of Trabzon has a direct impact on the festival culture industry. In Mali, the inclusion of the *yaaral* and *degal* festivals in the UNESCO list of Intangible Cultural Heritage has increased the engagement of regional and national political authorities (15).

In this context of wholesale heritage designation, it is interesting to examine how local knowledge – especially that on hardy animal breeds – is promoted and safeguarded. The authors focus on the case of North Africa, particularly Morocco, where the national association of sheep and goat breeders (ANOC, see www.anoc.ma), which was accredited in 1980, oversees selection and health policy for small-ruminant local breeds.

Local knowledge in North Africa: the case of animal breeds, a living heritage

Belonging to a local area

The occupation of farmer or shepherd relies on a large body of knowledge and expertise that has been handed down from generation to generation for hundreds, or even thousands, of years. The ability to select (i.e. transform) their animals by choosing breeding stock to adapt them to a specific area and type of production is one aspect of such knowledge. Geneticists sometimes describe this selection by farmers as 'empirical'. In France there is also the term 'farmer selection' (*sélection paysanne*), which has a somewhat archaic connotation of extensive livestock systems. In Morocco, the term often used to designate farmer-selected local breeds is *beldi*, which means belonging to a region or local area – seen as both an ecological area and the pastoral practices of a human group (interview with Bouchaib Boulanouar, head of the scientific division at the Moroccan National Institute for Agricultural Research [INRA]), Rabat, May 2007).

Designation of origin

It is common for such domestic populations or breeds to be named after the region or local area from which they originate – what animal scientists refer to as the 'birthplace' of the breed. For instance, the transhumant sheep breed Timahdite, which accounted for nearly 9% of Morocco's total sheep population in 2006, i.e. more than 1.5 million head (16), is named after a town in the Middle Atlas Mountains. Well adapted to altitude, the breed is farmed throughout the Middle Atlas range; it has also acclimated to other regions of Morocco, where it is used to improve other sheep breeds for meat production.

Some breeds are named after the social group that selected them. One such breed is the *Rgueibi* dromedary, raised by the *Reguibat* tribe in northern Mauritania and Western Sahara. Bni Guil is a breed of nomadic sheep from the Oriental and Boulemane-Missour regions of Morocco, which was named after the Bni Guil tribe that practises nomadic grazing

between Figuig and Ain Bni Mathar. The Bni Guil breed is renowned for its hardiness (17) and is considered one of Morocco's best meat breeds, with the distinctive flavour of its meat stemming mainly from the wormwood it grazes on the vast steppe rangelands (18, 19).

Animal breeds are not fixed for all time. They continue to evolve as farmers modify their selection and feeding practices in response to changes in pastoralism and in local, regional or national socio-economic demand. They are a living heritage that could be described as 'agro-cultural' and contributing to 'agro-biodiversity' (20), i.e. the type of biodiversity resulting from human activity, which is recognised in the UNESCO framework as part of both livestock heritage and cultural heritage.

Specialisation

Local animal breeds are a reflection of the pastoral societies that selected them. Serving as both a means and an end for a specific farming system closely related to the lifestyle of a human group, these local breeds can be nomadic, transhumant or sedentary. Some are specialised, producing milk or meat, wool or fibre, draught power or manure, etc. Others are able to provide all these products at once, albeit in smaller quantities, allowing them to meet basic household needs: dietary, agricultural and technical.

In the first half of the 20th Century, the anthropologist Evans-Pritchard made a protracted study of the relationships between human societies in East Africa and their domestic animals. He advised those seeking to understand the behaviour of the Nuer, an ethnic group known for its 'obsession' with pastoralism (i.e. the group's extremely strong social and symbolic ties with its cattle) to '*chercher la vache*' (look for the cow) because 'most of their social activities concern cattle' (21). Any study of the history of animal breeds will therefore also reveal the relationship between people and their cultural identity.

Local breeds: a 'common good' of inestimable genetic value to both farmers and researchers

Studies of livestock systems and local breeds show the great importance of aesthetic, animal-production and economic criteria in pastoralists' perceptions of their livestock. These physiognomic criteria (e.g. coat colour, size and horn shape of cattle and sheep), to which families pay close attention when procuring an animal for a sacrificial ritual (e.g. a religious, family or community feast) or for entertaining guests, contribute to the local cultural identity.

Economic versus cultural value of selection

The cultural value of conserving animal breeds in southern countries – along with the related pastoral practices, some designed to preserve herd health – enhances the genetic value of these breeds. The genetic value of animals was highlighted in a report by the Food and Agriculture Organization of the United Nations (FAO) on the state of the world's animal genetic resources, which was presented in early September 2007 at the first International Technical Conference on Animal Genetic Resources at Interlaken, Switzerland (22). According to the report, the preservation of livestock biodiversity relies on developing countries, which are home to 70% of the world's cattle breeds; in industrialised countries, 90% of cattle come from a mere six breeds.

The striking headline of an article on this report in the French daily newspaper *Le Monde*, dated 3 September 2007, translates as 'Livestock in countries of the South under threat from western breeds'. It goes on to report that, over the past four or five decades, gene flow – through live animals, their semen and embryos – has accelerated both among countries of the North and between North and South, under the impetus of globalisation and the commercialisation of livestock breeds (23).

In Morocco, the policy of crossbreeding by merging local breeds of cattle with a few large breeds (Holstein, Montbeliarde, Fleckvieh), which the country has implemented since independence to achieve self-sufficiency in dairy products and meat (24), has resulted in the extinction of several of these local breeds. According to Ismail Boujenane, a geneticist at Morocco's Hassan II Institute of Agronomy and Veterinary Medicine, between 1975 and 2011 the share of native cattle fell from 95% to 45%. Only three *beldi* breeds (Brown Atlas, Oulmes Zaer and Tidili) are still extensively farmed in difficult areas, although they, too, are in danger of extinction unless a conservation programme is implemented as a matter of urgency (25).

Carlos Séré, former Director General of the International Livestock Research Institute (ILRI) and co-author of the FAO report on the world's animal genetic resources (22), has proposed a number of measures for safeguarding biodiversity, including the establishment of gene banks. He has also advocated a policy of encouraging the preservation of herds of native breeds and promoting trade in such animals, because if a breed is present in several countries the risk of extinction is reduced.

In a publication by the INRA Science for Action and Development Division, Julie Labatut stresses the need to retain variability of traits in the genetic heritage of local breeds in order to cope with diverse farming conditions

and meet new societal expectations (26). To this end, she recommends taking more account of farmers' knowledge and of their ability to identify hardy animals, emphasising the link between pastoral community, local breed and local area or region, which ensures the sustainability of farms from a socio-economic, genetic and animal health standpoint.

Other experts consider local breeds as 'social constructs' built around a set of farming constraints and multiple animal-use objectives. The ancestors of today's African farmers did not have sufficient methods for performing selection as we know it today. However, it would be unjust not to acknowledge their ability back then to have made the right choice of selection criterion to meet their objective (27). Indeed, the veterinarian D. Planchenault and agronomist J.P. Boutonnet question whether they themselves would be able to devise criteria to address issues alien to current society, criteria that collaboration with anthropologists would probably have helped them to decipher.

Conclusion

The expanding field of heritage and the reappropriation process driven partly by States and local authorities, as well as by pastoral communities, are illustrated by the example of animal breeds. Conserving the genetic heritage of these

breeds may also help to create new breeds, providing an appropriate response to society's food needs. It was his research work, leading to the development in 1998 of a new sheep breed, called 'DS', that earned Ismail Boujenane the Grand Prix Hassan II for invention and research in agriculture in 2005. This synthetic (composite) breed is the result of crossing two main Moroccan breed types: the D'man sheep breed native to southern oases, and rangeland breeds such as the Timahdite and Sardi. The DS breed could be seen as the (time-lagged) result of empirical selection by generations of farmers combined with scientific selection based on cutting-edge genetic research. The efforts of international environmental organisations (the United Nations Environment Programme and the World Initiative for Sustainable Pastoralism) to establish global networks of pastoralists (28) should be encouraged and supported to increase recognition and future transmission of local knowledge and expertise, as well as the *in situ* and *ex situ* preservation of the genetic heritage of hardy breeds.

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