



**CULTURE AND NATURE: THE EUROPEAN HERITAGE OF
SHEEP FARMING AND PASTORAL LIFE**

**INTRODUCTION: HISTORY AND SOME SPECIFIC FACTS
OF SHEEP FARMING IN FRANCE**

RESEARCH REPORT FOR FRANCE

By Edouard de Laubrie, Vanessa Doutreleau, Pierre Del Porto .

MARCH 2012

Introduction and history for the CANEPAL French Report

The sheep rearing is one of the most ancient techniques of livestock breeding in the world. It concerns in particular, since the Antiquity, the main part of the European territory, including France. Most of the member states of the European Union or those entering, have a rural history bound to the sheep breeding. The market was up and down during the second part of 20th century, less profitable and unsuitable for the will of productivism of the rural territories. Threatened with disappearance, the traditional sheep keeping was studied by the ethnologists for some decades and numerous testimonies were collected on the lifestyle of the shepherd, the symbolic figure of the sheep keeping. The existing studies concerned the man, his flock, the inter-relations between the man and the animals, but also the know-how of the shepherd, so much through the way he looks after animals and what its links with the physical and space environment. At the same time, the ethnozoology studied animals, often hardy breeds, threatened with disappearance, because these ancient breeds don't correspond to the standards of the modern market demand but have to be carefully genetically conserved and stored via live and securized biobanks .

Since some years, the sheep production finds a renewal of interest, by meat prices re increasing (45% of mutton meat consumption is french produced), environment subsidies for protecting landscapes by animals grazing , and a picturesque shape, then patrimonial and agrotourism. The image of the shepherd remained alive in our collective imagination, character solitary person, holder of age-old knowledge on the nature, on the sky stars, but also sometimes storyteller, even considered as a wizard. Huts of sheperds or sheepfolds in stones or wood or tree branches , authentic rural symbols of architecture are renewed; ancient roads and lanes of transhumance are rehabilitated into pedestrian hiking trails. Museums presents exhibitions on traditional sheep management, transhumance, the status of the shepherd, handicrafts... These various aspects of culture and heritage are often loaded with identical valuation, creative or to recreate local festivals as the transhumance events .

Beyond these folkloric aspects, the revival of the sheep farming arrives henceforth in the sustainable development through very varied aspects which have for objective "to repair" the excesses of a productivist and intensive rural planning in sur-production areas and the others become depopulated. The survival of this ancestral practice of livestock farming gives a guaranty for a durability to which we aspire today. The sheep keeping is a real alternative against extensive and conventional breeding practices. Quality food stemming from this ancestral sheep breeding is carrier of values and roots which oppose to the "bad fooding" and to the globalization.

So sheep farming allows to fight against the desertification of the rural territories and it guarantees their maintenance . So, for example, forest fires make every year, in numerous provinces terrible devastation; to maintain the sheep keeping avoids the abandonment of immense territories while maintaining them thanks to the pasture of ovine breeds. The activity of animals and the fertilizer which they produce contribute to recreate the traditional flora and certain small trees species in regression process, so limiting the proliferation of

invasive bushes which can contribute to fire progress in summer (rhododendrons for example in Pyrenees). The pasture of animals contributes to the diversification of the landscapes and facilitates the development of the biodiversity.

The sheep keeping also allows to maintain the human activity in estimated abandoned areas and create economic dynamics through stemming productions directly from the sheep products or derived : cheeses and quality meat, but also work of wool and leather. It can provoke and facilitate the creation of jobs diverted thanks to an energization of the local crafts and to a transmission of know-how.

Finally, the sheep keeping can be also a factor of tourist development thanks to demonstrations connected to the transhumance for example; creation of farm-inns and seasonal housing but also diversification of the products of soils.

Nowadays the french sheep population reaches 7M head, reared in 58 000 farms, composed of 5.7M ewes (3.9M for lambmeat production and 1.8M ewes are milked for cheese processing) . The fleece is considered as a by product but improvers breeders are confident in the future and expect a return for the quality wool, related to better and valorized market prices.

Some of the main topics considered as significant and particular concerning sheep-farming in France are now described .

1. The civilizations of the sheep

The sheep plays an important role in different religions in Europe and in the whole world. The project's expansion in this direction, the presentation of research in this field and its results may contribute to the dialogue and reconciliation between religions, since the sheep/lamb are important parts of the Christian, Jewish and Islamic cultures too.

2. A rich genetic heritage to maintain and to rediscover

The Merino of Rambouillet.

Among the development of animal breed, the Merino was particularly exemplary, from the second half of the 18th century. This history, singular in France was organized in three stages. The first one, in the 18th century, includes some introductions of Merino in France because works and observations in Spain confirmed the wool interest. This step started in the Royal Sheepfold of Rambouillet in 1784 built under the decision of Louis XVI, in the park of the castle of Rambouillet.

Daubenton studied the way of managing the French ovine local breeds to improve the fineness of wool by introducing spanish merino genetics. Daubenton demonstrated that, by a sensible choice of the breeding bloodlines and an improvement of the conditions of managing of animals, we could approach it at least. Daubenton wrote a technical guide named "Instructions for the shepherds and the owners of flocks ".

Daubenton was charged to organize the movement from Spain to France of the first batch of merino acquired by Louis XVI after getting from the franco-spanish 1761 agreement and from his cousin King of Spain , a very special derogation. This acquisition was the object of a

secret clause in a treaty with Spain. Philibert Chabert, director of the veterinarian school of Alfort contributed to their acclimatization. The flock of Merino sheep , come from Spain by walking , crossed all France in 1786 and was settled in the new Sheepfold of Rambouillet called *Bergerie royale* then *Bergerie Impériale* and nowadays *Bergerie nationale de Rambouillet* .

The second period is the "mérinisation", firstly very experimentally, meeting serious hesitations as well by breeders as well as by wool manufacturers, but became massive under the Empire. The purchases of Merino in Spain was repeated almost every year, with the objectives to give engaged farmers a maximum of rams for an absorption crossing improvement programme with the native breeds and concerned approximately 2,5 million animals.

The third period, began around 1830, with uncertainty, then by a decline for the Merino. The economic conditions had indeed evolved: the decrease of the price of wool, due to the importation of wool from Australia, where the Merino had taken a vertiginous development; the development of the mechanization of the industry, which had consequence the demand of a long wool; the development of urban areas, the consequence of the industrialization, which raised an increase of mutton meat demand . In this new context, the Merino, with its very fine but short wool, and its lower butchery qualities, was not any more the best placed to answer to the demand.

The continuation, in France, is made by the phenomenon of " dépecoration " (spectacular fall of the ovine workforce connected to the wool crisis), then by the conversion of sheep aptitudes from wool to meat main production .

Nevertheless, between 1850 and 1930, the *Merino of Rambouillet*, served largely for improving the French and foreign flocks, in particular Australia, Latin America and the Eastern Europe. The merino is indeed a very hardy sheep, well adapted to dry countries. The fleece, weighs up to 8 kg for rams, covers all the body excepted the extremities of the head and legs. The wool is plentiful, fine, elastic and resistant. Rams have big spiraled horns with triangular section. Females have no horns. The National Sheepfold is considered as an experimental farm which assures the role of genetic academy for the merino . Actually the flock is the only one of that breed, bred full blood, existing in France and worldwide, in closed inbreeding, strictly controlled with a long term mating programme, all with DNA blood typing.

The Merino also improved the local breeds, in particular creating the Merino of Arles, in the southeast of France during the 19th century, by crossing local ewes with merino rams . The Merino of Arles is particularly adapted to the transhumance between the plain of Crau in the Rhone valley and the Alps high mountains during summer. Merino of Arles population in France is about 250 000 ewes today; especially located in region Provence-Alpes-Côte d'Azur and in nearby departments (Isère, Drôme) as well as in Corsica and in the Pyrénées-Atlantiques.

Nowadays 57 sheep breeds are still raised, part in conservative genetics programmes , part in productive improved programmes using breed progeny test schemes, artificial insemination for progress diffusion ,and continuous adaptation to market demand as well as keeping good functionality of sheep for maintaining environment, always with rentable flocks feeding and management (cf. presentation by Stephane Patin , Races de France at mid Canepal programme Conference Paris; March 2nd 2012)

The pastoralism in Landes

The first characteristic of sheep farming (also goat) in the Big Moor/ *Grande Lande* is really extensive farming. It is the moor, and only the moor, more by its available unlimitedness than by its feeding abilities, that covers the requirements of the flocks. So the pastures have to come and grow in time, so that animals can, according to the cycle of the vegetation, find their daily ration. This course follows the natural rhythm of seasons. In winter, the flock stays near districts, in zone of dry moor, while in summer it goes very far on the wet moor which occupies the big inter-river grounds. The flock has to walk up to twenty kilometers a day. Nevertheless, every night, the flock is parked in a mobile wood sheepfold-park on field, so that the flock produces the precious expected manure-fertilizer.

Animal products from the flock are diverse. Animals are deprived of their fleece before the heat of summer and the wool, partially treated by the farmers, can be marketed and get some incomes. The meat of the young male lambs and from the culled ewes is the only one consumed, the ewe lambs being mainly all kept for the renewal of the flock. Lambs are all suckling the ewes. It is necessary to understand the harsh conditions dictated by the moor, unique feeding resource for the flocks: females produce only just a few milk, and give in these conditions only two lambs on average in their life - at three year old for the first lambing, and at seven-year-old for the second, then after they are culled. But the main reason of sheep farming (or goat) is the production of the manure intended for the indispensable fertilization of cultivation fields. A suitable amendment of one hectare of field requires the manure from twenty to thirty sheep. The sheep production in the Landes is not thus a classic pastoralism, it is combined system with agro-pastoralism.

3. An essential ecological actor: the shepherd

The personality of the shepherd.

Sedentary shepherd and transhumance shepherd constitute two different working systems in the traditional pastoralism. The sedentary shepherd lives set back from other farmers' community. During these phases of summering on mountain or wintering, the shepherd of transhumance joins a community of shepherds which contributes to train its social and cultural universe.

Particular relations become established between the shepherd and its close universe (family, employers, congeners), but also between the shepherd and the rest of the society who express themselves by positive or negative relations through the economic, entertaining meetings, or ritual.

Often outside the rural society, the shepherds are both feared, in cause their magic and technical knowledge, or thrown back because of their independent and solitary spirit. Due to its work, the shepherd is confidentially connected to the physical and ecological environment. Due to its knowledge, the shepherd is also connected with the history. His knowledges become integrated both together into the structure of the scientific thought and into that of the mythical thought.

So, into the shepherd knowledge, science and magic were confidentially connected. From the sky and the nature observation to the ancient teachings passed on by generations to

generations but also popularized by the almanacs of the shepherds (collections of almanacs from the Middle Ages till the end of the 19th century), the shepherd benefited for him and its flock of the observations of its environment.

The observation of plants and sky dictated meteorological and chronometric applications and inspired astronomical and astrological interpretations (sundial and solar watch uses).

At the same time, The shepherd Jean de Brie, particularly erudite, was an administrator to Charles V's Court , and one of the first theorists of the sheep farming since the Antiquity with his work "Shepherd de Brie", published in 1379 and republished until 19th century.

The therapeutics which the shepherd applied, became high in the middle of the 19th century especially veterinary rules, popularized in advises to the owners of flocks by authorities of Daubenton. Afterward, the works of Pasteur, allowed the veterinary to fight with more efficiency against the contagious diseases which decimated the flocks.

This duality of the shepherd perception between science and faith find one's way around in the meaning that he is perceived by the society around him. However, due to his position outside the society, the faith always gets the upper hand and the shepherd is perceived either as a redoubtable wizard, or as a beneficial magician (quack in particular).

Using magic formulae, objects with beneficial, preventive and therapeutic virtue, the shepherd-magician cures animals and people, he can also protect them from the disease (stone against the plague, stone against poison, blood stone). He also uses the therapeutic properties of plants in the form of infusions, decoctions, liquors ...

Another aspect of the personality of the shepherd will be evocated through the popular art of the shepherd, which uses mainly the wood and a minimalist tool (its knife). Its ornamental, mainly geometrical vocabulary, will again be studied in the fault the multiple combinations which allows this art. The art of the sheep bells will also be the object of a particular study.

The Landes shepherd.

In Landes, before the creation of the forest in the middle of the 19th century, the shepherd is the symbolic character of the ancient Landes . Perched on stilts, dressed with sheep skins , taking off or knitting while watching casually his flock scattered in a bare moor, he constitutes the idealized image attached unflinching to this country from the Landes.

The shepherd frequents the unlimitedness of the moor, until the borders of the municipal territories. The obligation to supply for animals a sufficient food all year round , especially in the summer months, to go away from districts and from villages to consider the moor and live alone. A solitude however enamelled by meeting with the other shepherds coming from the other districts, either when he is in limit of the municipal territory, the nearby villages.

To be shepherd is not a social status: it is an economical function. The shepherd can be member of a family of owner or sharecropper; in that case, he is often a already old, too old man to assume the hard work of fields, but the experience of which turns out precious for the management of a flock and for the care to be given to animals. He can be also domestic, in the service of a owner or a sharecropper, sometimes included into the family group of his boss. But mostly the shepherd is "*brassier* " (he's working with his arms). In that case, he is been attributed-by contract with a owner-a small farm,including a small house ("*meysouet* ") and a plot of field, completed by a garden, which will assure its food base, but the productions of which will be subjected to the governing rules of sharing the sharecropping.

The shepherd receives annual wages, for the greater part paid in kind, assigned by the owner of the herd.

4. Inventory of fixtures of the contemporary sheep keeping

The networks of ovine transhumance from the Provence to the Alps region.

It is essentially in the South of France where the transhumance remains an economic and social considerable phenomenon. Historically, the transhumance follows its own roads network, called "*drailles*" or "*carraires*", which were the first communications between the plains of Low Provence and the alpine mountains. The country of summering on mountains is traditionally represented by the Alps of Provence (Mercantour, Ubaye, Haut-Verdon) and the Southern mountains of Dauphiné (Vercors, Briançonnais). With the development of the railways transportation then by truck, the flocks also reach today Oisans and Vanoise. Nowadays, most of the livestock is transported in cattle trucks which can contain, on three or four levels, 1000 head. Only certain flocks, representing approximately 75 000 head, which winter in the Var, the Alpes-Maritimes or the Alpes de Haute-Provence, continue to walk on foot towards the most close high mountain pastures. However, every year, approximately 620 000 heads are summering in mountain and 100 000 approximately, come down from the mountain to spend the winter in plain.

Since the adoption of the Law Mountain in 1972, many improvements were realized on summering places in mountains. These improvements, which lean in Provence-Alpes-Côte d'Azur on the Center of Studies and Realizations Pastorales Alpes-Méditerranée (CERPAM), concerned mainly the conditions of stay and work of the shepherds. Huts are built, most of them equipped. Access tracks are opened or improved. Water sources, more or less mobile equipments for the sorting and the collection of animals were fitted. When the summering huts are not accessible by passable way, the climbing in high mountain of the various products and equipments necessary for the flock and the shepherd life, can be made during collective operations by helicopter transportation. These improvements are indispensable to the perpetuity of the shepherd profession. It is not rare to find today in mountain the shepherd installed with his family, and sometimes with young children.

Always based on the natural grass cycle and the exploitation of the natural capacities of sheep, the farming follows the recent Agricultural Guidance law: natural and quality products (meat, wool), environment protection practices, preservation of the rural fabric in plain as in mountain, of the employment - (waged shepherd) of summering - of the landscaped and natural heritage. Capable of protecting the conditions of balance with the natural environment, appropriate to satisfy requirements of any orders, food, social, environmental, cultural, even spiritual, the ovine transhumant breeding, such as the majority of the shepherds lead it for centuries, is obviously one of the most convincing model or pattern .

Attentive to the conservation of the pastoral potentialities of the space which they use, breeders and transhumant's shepherds implement extensive practices of pasture well related with environment. No other practice may maintain at moderate cost a so large area and maintain there a so rich biodiversity . The reasoned conducted flock contributes to the enrichment of the biological variety and to the prevention of erosion, avalanches or the growing of the undergrowth with summer fire risks . The natural spaces with pastoral vocation, made by the pasture, occupy in the South Alps and Provence, considerable surfaces: 800 000 ha approximately, from forest massifs or steppe of Crau to the littoral

zone, up to the high mountain pastures of the high valleys (400 000 ha of high lawns), by way of moors and scrub lands of the middle high landscape country.

The Roquefort cheese and others.

The ewe milk is only used for the cheese manufacturing. Roquefort uses the biggest part of it. Since the 8th century, the Roquefort is quoted in numerous acts, donations, pensions, and other. Charlemagne had made his favorite cheese. In 1411, a Charter of Charles VI recognizes the vital necessity of defending the Roquefort " in a country where grows neither foot of vineyard, nor grain of wheat ", and in 1666, a judgment of the Toulouse Parliament grants to the inhabitants of Roquefort " the monopoly of the refining of the cheese such as it is practiced from time immemorial in the caves of the above mentioned village ". In spite of the Revolution, the Roquefort privileges are maintained by the Agreement which decides that " will be named Roquefort only what will take out from Caves of Roquefort ".

It is a cheese made exclusively with the raw milk of the Lacaune breed ewes, the only one and before with the Caussenarde breed to have known how to adapt itself to the rigorous climatic conditions, marked by rough variations of temperature. They are fed by grass, and also cereal which have to result for 75 % at least from the geographical origin area. Except wintering period, the outdoor pasture and grazing is compulsory.

The milk necessary for the production of the cheese is collected in a zone extending over the department of the Aveyron and over the territory of a 100 km approximately around the village of Roquefort-sur-Soulzon near the cities of Saint-Affrique and Millau in the Aveyron. On the other hand, the refining is confined to the only municipality of Roquefort-sur-Soulzon and even limited to the zone of collapse of the rock of Combalou: a mass of fallen rocks 2 km long on 300 m of wide. Indeed, the collapse of the cliff created natural caves or grotto with a very precise temperature and hygrometry. A natural ventilation is assured by cracks in the rock called "fleurines". The Roquefort cheese benefits of an origin label since 1925, an AOC since 1979 and an AOP since 1996.

During storage in those caves, cheese get the very unique "Penicillium roqueforti" sporum initiating the famous blue veins and reputation of the tasty french full fat blue veined fat Roquefort cheese. Matured for at least 90 days in caves under specific atmosphere before the special metalised paper packaging.

Less known, other local cheeses are interesting to study. They differ between them by their composition (milk of ewe pure or mixed with some cow milk or goat milk), but also by their manufacturing processes (cold or hot renneting). Obtained cheeses are fresh ("bruccio", "brousse" in Corsica) or in hard dough (the Basque, the Laruns) or fermented (cheese Tomme of Brach, Roquefort).

Situated in the south half of France, the production of these cheeses is traditionally bound with the period of lambings and lactation. The production is thus seasonal, from March till October.

With the whey, certain by-products " greuil " or " greul " (from the cheese of Laruns), " breuil " or " perac " (Aveyron) are processed.

5. Spread the pastoral culture

The festive revival around the transhumance and around the Christmas feast.

Created in 1991, the Die transhumance feast is a big event organized around the meeting of two transhumant sheep flocks: the Lemerancier family flock, and the collective pastoral group flock. The Lemerancier flock is coming from St Martin de Crau, in Alpilles (Bouches-du-Rhône) with 2000 merino of Arles ewes. The journey is done by truck until Die, city at feet of Vercors. Besides welcoming flocks in transit through the city, Die organizes a feast of opening in the foreign cultures, as Algeria in 2003.

Other interesting holiday to be studied is the revival which know "pastrages", holidays evocated by Van Gennep as almost disappeared at the beginning of the 20th century, and which knows a very strong revival since about twenty years. The shepherds were the first ones to be warned of the birth of Jesus; they greeted him first at Bethlehem. The shepherds played an important role in moment when the sheep are presented during the midnight Xmas mass in Provence.

The holiday takes place in the following way: some days before Christmas, the "*bayle*" (the shepherds chief) chooses a lamb, the most beautiful of the flock. A cart is adorned with ribbons, candles, boughs. In the evening of come Christmas, we place the lamb in the cart which is trucked by the ewe. The shepherds come down then in the village, to wake the villagers and to announce them the Child birth. They bring the lamb in offering. Folk groups, which represent the villagers join the procession, the "*tambourin*" players play Provençal Christmas... Loaded with presents, they go to the church, to honour the child and put deposit front his feet, during the mass, earth fruits.