

Interview

Working together to generate knowledge

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interviewed by
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What led to your commitment to pastoralism?

I did my doctorate in ecology and masters in anthropology, so I have a mixed background in analysing interactions between humans and the ecological context. During my studies, I had the opportunity to spend four months in the Andes in Peru and Bolivia, a world I didn't know at all. I was introduced to local shepherds, who made a big impression on me. That was about 40 years ago, a time when pastoralism in Europe was characterised by an archaism that was disappearing at the end of the 1970s. This chance encounter with the pastoral world of the Andes marked my professional career. The following year, back in France, I had the chance to work on my doctorate with an old shepherd who gave me the key to the topic of pastoralism.

As a city dweller, how did you become involved in agriculture?

Until the 1980s the story was of the intensification of agriculture. We had to increase production with more machinery and complex technologies. In addition, extensive livestock farming came into conflict with forest management, so there were many prohibitions and constraints on grazing. We came out of this period with a new spirit



*Laurent Garde, former Deputy Director of CERPAM
(Photo: S. Munoz).*

in which pastoral practises were revalued together with the new concept of regional parks. This dynamism opened a window of opportunity for traditional pastoralism to



follow new ways to meet society's changing expectations. Scientific institutes emerged at the same time. So, I had the chance to contribute to the study of pastoralism in parallel with all these convergences and new expectations. This new perspective has made it possible to rethink and revalue human activities with biodiversity and natural areas.

The institute where I work, CERPAM (see Box 1), was created at that time as a centre for pastoral studies in the south of France with a regional dimension, on the scale of transhumance movements of herds. It was born as a bridge between the worlds of shepherds and science. All the partners concerned make up the board of directors. I arrived as a researcher. We had no reference for a technical knowledge base for research, so we based our knowledge on pastoral practices and their effect on the environment. Pastoral services emerged following the national pastoral law of 1972, which was visionary and enabled a new territorial organisation of the pastoral world, the basis for a new structure in terms of new collaborations between breeders, territories and scientists.

How is knowledge transferred between scientists and livestock breeders?

There was a need to modify the classic knowledge transfer process between science and the field through the theme of pastoralism. Knowledge grows from the herder and the shepherd. This does not mean sacralising the work of the shepherd, but rather recognising the value of knowledge from daily life, the concrete case and how to do things as well as professional knowledge. Our re-

search is not built on the classical method of experimentation but rather on the compilation of hundreds of cases which we formalise, characterise and synthesise in order to understand and describe underlying principles. The pastoral services and the research institutes carry out this work together: there is co-construction, not scientific elaboration transferring results to technical services. In this process, research is needed to complete and deepen scientific questions, just as research needs the field to formalise knowledge.

Isn't that a bit optimistic, given the variety of practices among breeders?

First of all, I don't make any value judgements about breeders. Through diversity of practices, a network of knowledge is formed among breeders. A system of values is established between herders such as bringing beautiful animals down from mountain pastures, the sustainable management of mountain pastures and the growth of lambs, etc. Herders exchange information and thus create a professional community and practical knowledge. This collective dynamism of the shepherds fascinated me. I would like to illustrate this point with the example of the arrival of livestock guardian dogs in pastoral systems. It upset classical values and forced the herding community to accept a new practice that went against their criteria of values that had formed over decades. So, an old game of flexibility met a game of rigidity through herd protection. This means that farmers who started to protect their herds went outside their community of shared values, both in their own eyes and in the eyes of their colleagues.

How, then, can a new practice such as using livestock guardian dogs emerge?

Trying to identify the know-how surrounding livestock guardian dogs is much more difficult because we are in the experimental phase, which is not the case in the field of pasture management. It is within the world of farmers that new knowledge will be identified. We bring out the knowledge from the field through experience, which is constantly confirmed in everyday life. That's how we enter into a process of building a new sample of knowledge that is the basis for the new practice to develop and become established.

What role has the wolf played in the transformation of the pastoral world?

The wolf has disrupted the pastoral evolution and extensification of livestock farming, which had been in full reinvention since the 1970s. It has upset a real dynamic that consisted in promoting extensive feeding and the development of pastoral management. So, the arrival of the wolf called into question this new appreciation of pastoral practices.

Does this mean that the wolf is a threat to existing good practice?

I don't like the expression 'good practice'. My conception of research and development is to identify practices and understand their meaning. So, it's not 'good practice' but a set of practices that constantly adapt to contexts. I think that the concept of 'good practice' has profoundly degraded the support given to farmers. I know the practices of herd protection, but they are neither 'good' nor



Typical vegetation in the south of France (Photo: Laurent Garde).

'bad'. It is this game that constantly adapts to the new reality of the return of the wolf, which implies the implementation of new techniques and a diversity of practices. With the concept of 'good practice' there is a risk of monopolising a certain practice that cannot work in a diversity of contexts.

How is this set of practices connected with the return of the wolf in France?

You can't deal with the practical and technical consequences without asking the fundamental question of the recolonisation of the territory by wolves. I cannot work on the protection of flocks without questioning the cause and consequences of the return of wolves. What is the overall impact of the wolf on livestock farming? Why and how is the wolf population increasing? Why are investments in damage prevention measures increasing as are losses of livestock during the last 30 years?

What does this mean for your work at CERPAM?

People, including scientists, often believe that we have a problem if we are looking for a solution. No. We are in a crisis that implies a transformation. For us, this means that we document the impact of the wolf on livestock farming as best we can and, at the same time, we accompany farmers to see what adaptations can be put in place in order to be able to manage the transformation that was triggered by the return of the wolf. This is why we start with the concept of 'co-adaptation'.

Can you explain the concept of 'co-adaptation'?

The idea of co-adaptation comes from research. It's a circulation between people with knowledge in the field, development organisations such as CERPAM and university research. So, there is a circular and lasting exchange without a hierarchy. Therefore, both poles, field actors and researchers, are always needed to acquire knowledge in order to co-create new knowledge. We propose abandoning the passive concept of coexistence with wolves in favour of a dynamic concept of co-adaptation. The wolf's intelligence enables it to continually adapt to damage prevention efforts. It is therefore necessary to play on the wolf's capacity to adapt in order to emit new signals that indicate danger if it approaches livestock. There can be no protection of herds against an intelligent predator

such as the wolf unless it perceives a threat. Herd protection should include defensive shooting, provided that wolves are left in peace elsewhere, so that they learn which contexts are dangerous for them.

What role do the state and politics play in this dynamic between researchers and breeders?

The state has played a major role as an arbiter between the new reality in the world of livestock breeding and wolf management. But the state is obliged to implement European policy and I have the impression that, at the moment, the state is trying to manage a situation that is getting out of control on several levels. We started with the idea that the protection of herds would work as a way out of the crisis. But experience has shown the adaptation of wolves to protection measures and limits in the use of livestock guardian dogs.



One man and his dogs: a shepherd with herding dogs (Photo: Laurent Garde).

What is the role of experts concerning prevention measures?

What works well is data collection. In France we have an effective centralised system for understanding situations and their dynamics. It is necessary to affirm that the protection of flocks and herds does not work without knowing the predatory behaviour of wolves. We still know too little. We cannot work on defence strategies if we know nothing about the attackers. That's why we need more interdisciplinary knowledge for a better understanding. But what is happening now, instead of a fruitful collaboration between experts, is a confusion of roles between different disciplines such as biologists and agronomists.

I see a great deal of confusion in the knowledge-building process, especially concerning livestock guardian dogs.

Isn't a certain amount of disorder to be expected with the adoption of new practices?

Disagreements are necessary in order to progress, but places for discussion and confrontation are needed and, above all, the scientific process is ultimately about verification in the face of reality. So, we are always obliged to be oriented towards practice. In this process of expertise, there is a gap when we talk about wolf attacks. Biologists tell us that there are individual wolves that attack herds, while farmers tell us that they are obliged to increase the number of dogs in parallel with the number of wolves in packs! Too little is known about the social dynamism of wolf packs and packs of livestock guardian dogs, even though it is becoming clear that there are interactions



Flock management in Esparron, Provence (Photo: Laurent Garde).

between these two canids that share the same social signals. And we must not deny that wolves attack domestic prey as well as wild prey in packs!

How can we get out of this situation?

One way would be to rebuild trust between all the actors involved. I am in favour of everyone bringing their particular expertise to the community that deals with the issue. Livestock and pastoralism to agronomists, natural resource management to ecologists and wolf issues to biologists. Interdisciplinarity is not about shared incompetence. First of all, each one cultivates his own garden and from there we share. Feedback from the field, full of in-

formation, must be identified and integrated into this. The creation of a platform for this pooling could be a solution.

If we take the example of the climate crisis, we can see that in the French Alps there were visionaries who anticipated it. Thanks to people from some national parks and pastoral services, a platform was created to encourage exchange and generation of knowledge. This place is called *alpages sentinelles* and it serves to help us face the crisis together. Initiatives for wolf management in the same style have not been very successful. A lack of neutrality around this issue is the big problem we have encountered.

Why is the conflict around wolves so difficult to manage?

That's a difficult question to answer. The wolf is too 'sacred', too idealised. If we don't leave the prefabricated discourse in the style of, "herd protection works – it's the breeders who don't implement it", there is no good perspective. We have reached the point where a prefabricated truth is more valuable than collecting data and documenting the reality of the world of livestock farmers. It shows that we have reached dogmatism. This is why the current situation is blocked.

The pastoral world is generally too marginal to have enough power in this public discourse. But recognising the values of products and heritage and the services provided to society by extensive livestock farming would be very important for farming families beyond national borders. Feedback from the field is always at the regional level but, in terms of communication, efforts should be made at the European level to better promote the profession and the role of pastoralism. If this is achieved through constant 'co-adaptation', there is a chance that investment in herd protection will bear fruit.

How far should investment in preventive measures go?

On a technical level, the question arises as to how far it makes sense. Fences must be 1.1 m, then 1.3 m, then 1.6 m; two dogs, then five dogs, then ten dogs are needed... If we observe the learning dynamic of wolves and their changing behaviour in the face of protection measures, we must react with other measures such as defensive shooting, which leads to intelligent regulation based

solely on the criterion of countering the approaching behaviour of the herds. But for this, it is necessary to document these changes in behaviour in order to gain more knowledge and to be able to intervene at the right moment. The best protection measure, despite all the technical efforts and technological ideas, is still the use of livestock guardian dogs, provided that they are combined with defensive shooting as soon as they are introduced.

What is your wish for the future of the pastoral world?

Give the pastoral actors the capacity of all they have to offer to reach the recognition they deserve and get out of the colonial formulas and prefabricated speeches. I am convinced that the principle of co-adaptation serves in the short term to better protect herds and in the long term we must arrive at a trivialisation of the wolf that moves away from its sacredness towards a more pragmatic, less ideological and more consensual perspective in the sense that the wolf must be negotiated and not held as sacred.

Box 1. CERPAM

The Centre for the Study and Realisation of Alps-Mediterranean Pastoralism, Centre d'Études et de Réalisations Pastorales Alpes-Méditerranée (CERPAM), was created in 1982. It is a specialised service for the six departments of the Provence-Alpes-Côte d'Azur region. In order to improve the management of pastoral environments, CERPAM develops technical references and specific diagnoses and tests innovative pastoral equipment. CERPAM works with pastoral groups and local authorities. It is involved in the design of development projects, equipment and agri-environmental contracts and accompanies their implementation.



Winter grazing in Chaffaud (Photo: Laurent Garde).