Chapter 3

Between Two Different Worlds

Pastoralism and Protected Natural Areas in Provence-Alpes-Côte d'Azur

Jean-Claude Duclos and Patrick Fabre

Transhumant Pastoralism and Protected Natural Areas: The Meeting of Two Worlds

The implementation of protective status for natural areas, whether through natural reserves (1957), national parks (1960), regional natural parks (1967), the coastal conservation authority (1975), Natural Zones of Interest for Ecology, Fauna, and Flora or the ZNIEFF (1982), or Natura 2000 Zones (1992), to account for only the main French measures, has seen considerable advancement in the last sixty years. In 2020, the protected areas all together cover 20 percent of the national territory (Lefebvre and Moncorps 2013: 44).

At the international level, the UN recommends that 30 percent of land and sea areas be put under protection by 2030.[1] Therefore, with various forms and results, almost two hundred national governments, all signatories of the Convention on Biological Diversity (CBD), have committed to a worldwide policy of protection. The aim is to battle against the loss of biodiversity and to reach a sustainable use of natural resources. As a consequence of the convention, natural protected areas have a central place nowadays in the ecological strategies of the signatory states.

As much for the scientific knowledge provided by the monitoring of the ecosystems thereby protected as for the implementation of proper conservation, these classifications and their associated regulations form indeed the best way to preserve those natural environments that are deemed essential to the continuation of biological diversity. These classifications not only focus on research and conservation goals but also contribute to

an enlighten territorial planning, since the protected areas are part of an economic and social totality that is guided by policies implemented on the regional, national and, in the case of the CBD, planetary levels.

The Development of the Protection of Nature and Pastoralism

In France, and in the world, a large number of natural protected areas are pastoral areas. Indeed, two national parks, eight—soon to be nine—regional natural parks, and several national reserves, including the Coussouls of Crau Reserve, have been created over extensively pastured land as part of a breeding qualified as "pastoral," all within the territory of the Region Provence-Alpes-Côte d'Azur alone. To be clear, we must recall that what is said to be "pastoral" breeding is that which favors the consumption of grass through grazing—or pasture—yet complementary intakes in the form of fodder and cereals can still be incorporated as long as they represent less than a quarter of the total feed of the animals.

As this form of breeding is present in most of the protected areas, we can wonder if pastoralism was not the main actor of their conservation before they were classified. Such an observation may be surprising and seem exaggerated. We will see that it is not as meaningless as it may first appear.

Over the past sixty years of experimentations, we have seen the multiplication and evolution of various models and strategies in regard to the protection of nature. If, in natural reserves and the central zones of national parks, the choice was made to give sanctuary status to the environment, excluding all human use, other forms of protection, which include human activity, have been experimented with. In those, interest from the local population was sought, and so was its involvement which has been sometimes obtained. This has been achieved in regional natural parks, which were in fact created with the purpose of protecting a territory in harmony with its inhabitants' activities. This approach is also experimented with in national parks, where, since 2006, local governments are involved in decision-making processes. It is even practiced in a few natural reserves, although the case of the Coussouls of Crau which we will develop, is probably unique. Sanctuarization is no longer recognized as a realistic option, except in a few, quite rare circumstances. Admittedly, those who advocate rewilding still support it fiercely. Yet, we would rather listen to people such as Luc Hoffman, cofounder of the World Wildlife Fund (WWF) among other things, who always acted in a humanist way, undertaking international initiatives and leading his entire life for the protection of nature, continuously asking the same question: "How can

we ensure the Earth stays a viable environment for mankind?" (Hoffmann 2010: 211).

The enactment of the three types of classification we have seen—national park, regional natural park, natural reserve—has created the necessity for new skills. There needs to be implemented, between the decisional authority and, in the field, the most involved socioeconomic actors, a form of mediation. This function was given to engineers, project managers—sometimes called "project managers in pastoralism" in the area we are interested in—and technicians, in other words, men and women very often specialized in ecology. Mandated by their respective institutions, these agents suggest and, after receiving the approval of their governing bodies and very frequently of the scientific boards that surround these institutions, put into effect the measures of territorial management. It is through these agents, whose role as mediators has become central, that the protection structure, park or reserve, communicates with its inhabiting population. As we limit ourselves in this chapter to pastoral breeding, we will focus on the communication developing between the representatives of the protected natural areas and the pastoral world. We will come back on the definition of this distinctive world, made up of individuals united in their passion for breeding the animals that participate in their existence. Before that, a few more precisions on the specificities of the areas in and through which this pastoral world exists and persists seem necessary to consider.

In Mountain Pastures, Since Prehistoric Times

Let us start with the alpine mountain where archeologists have confirmed the existence of pastoralism between the second and third millennium BC (Walsh et al. 2006). Their research has even led them to observe that between the Late Neolithic and the Bronze Age this form of breeding so greatly modified the environment that mountain landscapes had already evolved to become similar to those we know today. Even though other activities, such as the search for various materials (silex, rock crystal, ore, etc.), were leading men towards the mountains, it was their pastoral activity there that transformed and shaped the environment permanently. Groups of seminomadic families took advantage of wide grasslands, traveling seasonally over several kilometers and soon after a lot more. Established around the pastoral use of a common space and likely a common flock, these "neighboring communities," as anthropologists call them, developed a know-how which, though evolving and adapting continually to circumstances, has been transmitted ever since. Over a very long period, knowledge on the ways to use the principal asset of the group, namely the permanent grass

from which the herd is fed and which ensures its future, was established, refined, perfected, and passed on through action and example.

This use of grass through the regular and repeated pasture of domesticated herbivores, that are lead and kept, generated a singular flora and environment. This alpine pasture is called *alpage* in French, a term from which the Alps got their name. For these grasslands, that most will believe to be "natural," do owe their existence and their renewal to herbivores' teeth as well as to the shepherds who breed and lead them. Only prolonged grazing, thought to provide the vital needs of the human group through the welfare of bred herbivores, could enable the creation and upkeep of the altitude pastures. The expertise, which the pastures have become dependent upon, is still maintained today by pastoral breeders and shepherds and constitutes indeed a real "patrimony," what one generation leaves to the next in order to guarantee its existence and its transmission thereafter. This is the reason why alpine communities have long been stubborn about maintaining the collective ownership of their pastures. This ownership appeared vital to them as much for their own livestock as for the rent they earned from transhumance.[2] However, these mountain communities could not predict the dispositions put in place by the state in the nineteenth century, which were aimed at optimizing the use of forests and rebuilding the mountain soils through reforesting, but which would strip them of their pastures. Grazing and lumbering activities were forbidden on the very vast areas suddenly placed "under the forestry regime," areas that the communities had been using up to that point. Goats and sheep were specifically prohibited, judged by the administration of Water and Forestry to be the cause of the disappearance of forests and the deterioration of the mountain soils. These measures accelerated the desertification of the mountain areas and weakened the agropastoral activities so severely that the members of the communities had no other choice than to emigrate or invest in tourism. This is how quite a few of them gave up the ownership of their collective pasture in favor of the development of winter sports resorts and ski areas.

This brief review has no other goal here than to keep in mind the subdued state into which the mountain world and more generally the rural world are placed in when, in the name of public interest, a central power imposes their decisions with no negotiation. This is how the creation of the Ecrins and the Mercantour national parks were perceived locally, as an authoritarian decision of the state, infringing namely on their freedom to hunt. Some, as in the Valgaudemar, even felt that they had become unwanted. Therefore, individuals in the pastoral world, the majority of whom are from the mountains originally, have remained distrustful of externally dictated measures. All the more so as the nature on which pro-

tection is decreed is one they know well and which they have lived on for centuries. That is clearly the case in the Ecrins and Mercantour massifs where agropastoral activity has long been dominated, at least since the Middle Ages, by the summer stay of the transhumant herds of Provence.

These two alpine massifs are today managed as part of the national parks, dedicated, at least as a starting point, to the protection of the wild flora and fauna. Yet, 20 percent of the central area of the Ecrins national park and over 50 percent of the Mercantour National park are covered in grazing, which has long been used for pasture. When the parks were created, there was a tendency in policy to wait for the pastoral activity to disappear on its own, yet it had to change under the pressure of territorial collectivities that immediately demanded the continuity of "traditional pastoral activities" there. The governing bodies of these parks would have also recognized that supporting the perpetuation of pastoralism was a way to ease the tensions between them and the local population.[3] The least we can say is that the relationships between the pastoral sheep breeders and the teams of the parks were not easygoing at first and have become only more complex since the reappearance of the wolf in 1992. Emile Leynaud, who was an informed director of the Cévennes national park before becoming general environment inspector, declared about national parks: "their insertion in local communities greatly depends on the future of these institutions whose difficult mission is to succeed in turning the territory of others into the territory of all" (Leynaud 1985). We will consider the place of pastoralism within the national parks.

The Medium Mountain Areas and the Plain

The pastoral use of vegetal cover is not of course exclusive to the high mountain areas. All areas put to the use of pastoral breeding over a long period of time result in floristic and faunistic identities, caused by the regular pasture of domesticated ungulates under the lead and care of their experienced shepherds. Such is the case of the Verdon natural regional park spreading from the Durance to the Alps. From low altitude routes to alpine pastures, its territory has long been put to use by its inhabitants for the practice of an often-transhumant sheep pastoralism which, although it has known fluctuations, has seen quite an improvement since the park's creation in 1997. The governing bodies of the park recognized the interest of this form of breeding to help in the prevention of wildfire, to which the territory is particularly vulnerable, and the conservation of its biodiversity. Thus, they enrolled in the national and European network of "Green and Blue infrastructure" (TVB) whose goal is to tackle the loss of

biodiversity by the preservation of "reservoirs of biodiversity," which are linked together through "ecological corridors," in line with the CBD's recommendations. The park encourages the presence of the breeders not only for their role in sustaining the "corridors," but also because of the economic activity they produce, and more broadly for the human presence they assure in an area that was, until recently, in the process of desertification. Today, the park is lending support to them in protecting themselves from wolf attacks which are common and put their activity in peril.

We will also consider, farther south, the cases of the Alpilles massif and the Crau plain, exposing the conditions in which this form of breeding has persisted. These two contiguous entities are today protected as a regional natural park (PNR) for the first, and a national reserve for the second, called the National Natural Reserve of the Coussouls of Crau (RNNCC).

The Alpilles PNR's web page describes its territory as follows: "Its landscapes owe as much to the deep forces of the earth as to the work of those who, over the centuries, have cleared the woods, brought up villages, planted vines and olive trees, dug mountains and plowed the land." Though in a lyrical way, the anthropization of this environment is acknowledged here, nevertheless, breeding was forgotten. It is true that the touristic purpose of this territory, incidentally the place of residence of wealthy individuals, might have caused the role of pastoralism to be overlooked when the PNR was created in 2007. Yet, it was only a short time before, in October of 1989, that about 1500 ha were destroyed by the flames in a few hours, mainly on the commune of Aureille; the catastrophic event brought back memories of the images of a time when herds roamed the hills. The prevailing conception of protection until then had mainly been that of the national forestry office, who had banned breeding activities from the area as they was considered detrimental to the development of the forest cover. Under the plan of Defense of the Forest against Wildfires (DFCI), trails had been created, yet, after the sudden spread of fire in 1989, this measure seemed no longer sufficient. Immediately afterwards, the intercommunal sylvo-pastoral Syndicate of the Alpilles was formed and it allowed about forty pasture areas to be attributed, through the mediation of an organization on which more will be said, the Center for Pastoral Studies and Implementations of the Alpes-Méditerranée (CERPAM). When it was created, the park relayed the syndicate's action and obtained a commission on pastoralism. Several of its agents go along with and, therefore, help pastoral breeders over fifty thousand ha of its territory, half of which are classified Natura 2000 Zone. Although some argue the park could do even more to promote pastoralism, there is progress.

South of the Alpilles, in the Crau plain where transhumant sheep breeding has maintained for a long time some vitality, the protection was put

in place through a very different path. The naturalists who took the first botanical inventory of the Crau, in 1950, already noted that the flora of the *coussoul*,[4] "one of the richest in species of the Mediterranean region," was the produce of "a centuries-old pasture" (Molinier and Tallon 1949–50: 111). It could not exist, they scientifically proved, without the sheep grazing there. Therefore, it was evident for the ecologists, who would later expand on the knowledge of the coussoul's ecosystem, that the ecosystem is inseparable from the sheep that graze there from February/March to June, thanks to transhumant breeding. It was then admitted by all that the sustainability of the coussoul depends upon the continuity of this type of breeding. Naturalists also discovered that the seeds they find in the soil can stay viable for hundreds of years and that their identification can help reconstruct the past of this environment. Seeds that have been found near Roman sheep pens provide proof of the presence of the herds that used to be there 1,500 years ago! Naturalists and pastoralists go even further and assess the role played by the know-how of the shepherds in the interdependent relation linking the coussoul's vegetation to pasture. As a matter of fact, they observe how the shepherds' use of the *fin* and the *grossier* association in their herding sustains the coussoul's biodiversity. The *fin* is made up of a great diversity of short grasses—up to seventy varieties in a square meter—as well as the *grossier* of Mediterranean False Brome, the *baouco* in Provençal, and thyme. More simply: the first one feeds, while the second fills, which will constitute a perfectly balanced diet, on the condition that the herd is well led, and will guarantee, *in fine*, that the produced meat and wool are of great quality. The acknowledgement of the symbiotic relationship between the soil and the herd has played a major part in the organization and management of the protection of the dry Crau, which is incidentally recognized as one of the last steppe-like environments in Europe. The naturalists played an important role there; yet, the sheep breeders also managed to make their voices heard to the extent that they nowadays participate in the management of the national reserve via their representatives in the Chamber of Agriculture of the Bouches-du-Rhône. The case of the Natural Reserve of the Coussouls of Crau is unique to the best of our knowledge, and it is not comparable to the cases of natural reserves in general. About this, we will see that the distinction in the classification—natural reserve, national park, or regional natural park—is clear in its legislative perspective yet much less so in the field. Nevertheless, the case of the dry Crau, where a national reserve was created in 2001 over about 7400 ha, managed jointly by the Conservatory of Natural Areas of Provence (CEN PACA) and the chamber of agriculture, appeared necessary to us to investigate because of the important place it has in the practice of transhumant sheep breeding in the southeast of France.

From the Ecrins and the Mercantour to the Crau, through the Verdon and the Alpilles, which is to say from altitude pastures to coastal areas, all the levels promoted by pastoralism are thus represented in these sites which are today protected. We will now see, first from the point of view of the parks and reserves' agents, then from the point of view of the pastoral breeders and shepherds, how the perceptions are expressed and the exchanges are carried out. Beyond the knowledge we have of the different environments, we will base our arguments on the analysis of about twenty interviews, conducted by Vincent Dechavanne during his internship at the Transhumance House in 2019 (Dechavanne 2019: 54), with agents in charge of pastoralism in natural protected areas, as well as sheep breeders and shepherds using these areas.

The Agents of National Parks

In their work on the alpine national parks, Geographer Lionel Laslaz and his team have already analyzed well the relationship between these institutions and the inhabitants of the areas through pastoralism (Lazlaz et al. 2014: 416). As the academics suspect, the interest of the national parks for this form of sheep breeding would seem to rest nowadays much more in the possibility offered to ease tensions with the local population, than on its contribution to the biological diversity of the preserved environment. As a consequence, the quandary is permanent between the will to favor pastoralism with financial and material contributions, and the will to protect nature.

In the two national parks we are interested in, and maybe more so in the Mercantour park, the relationship with the sheep breeders can become authoritative. The Agroenvironmental and Climate Measures (MAEC), although accompanied by a financial compensation for the sheep breeders, may result in the park's agents in charge of pastoralism becoming the messengers of regulations, as their duty, for instance, is to ensure strict compliance to the pasturing calendar and the number of allowed animals. Sanctions are imposed in the event of an infringement. If sheep have been found grazing in any of the black grouse (*Lyrurus tetrix*) nesting areas, for instance, the national park agents may alert the competent authority (the Departmental Direction of the Territories and the Sea, DDTM) who can withhold the MAEC's support from the sheep breeder. The agents sometimes also count the ewes as soon as they arrive, as they climb down from the truck, and make regular visits to the herd to observe its evolution on the alpine pasture and make certain that the sheep breeders are in keeping with their commitments.

Figure 3.1. National park of Mercantour, 2019. © Patrick Fabre

As concerns, for example, the *queyrel*, a grass that animals will not eat when it hardens, the park's guideline is clear: "mandatory scrapping." A study showed that this vegetal species, formerly groomed by reaping, is an active part of an interesting floristic whole which is dominated, and then degraded by, *queyrel* unless it is grazed upon at the beginning of summer.

To keep to a few examples, the "unfavorable decision to the setup of impluviums in the center of National Park"[5] given recently by the scientific council of the Mercantour National Park has much more serious consequences. An "impluvium" is usually used by shepherds to trap water in the southern Alps where droughts are frequent in summer. They used to be made of stone but are now obtained by digging a trough in the ground and covering it with a waterproof tarp in order to collect, store, and redistribute rain and snow melt. They are used to water the herd. The scientific council opposes them due to the risks:

- for the Batrachia, by drowning [*sic*],
- linked to the plastic tarp's disposal,
- linked to the accumulation of organic matter facilitating the development of cyanobacterias,
- linked to the modification of the landscape,
- linked to their multiplication in case of a severe drought.

Such positions, associated on a larger scale to the protection of wolves, shows that the protection of nature and its opening to the public, as the scientific council's decision precisely mentions the "modification of the landscape," are still a priority for the park. But "protecting and opening" were the goals set by the national parks when they were first created. Should nothing have changed then?

We will not dwell here on the consequences of the wolves' takings on the herds, which is largely studied elsewhere,[6] we will, however, note that this issue is not treated everywhere in the same manner. This concern caused severe difficulties in the Mercantour where wolves reappeared for the first time and where the national park elected to take on their management, as if it were a victory, even though nothing was forcing them to do so. Since, the situation has evolved in a rather more favorable one, probably through a change in direction but also thanks to the local political will to work with the sheep breeders. The issue of the wolf appears to be approached with more calm in the Ecrins where the park has left the competent authorities in charge (the minister of the environment, through the National Office of Hunting and Wild Animals or the ONCFS). Furthermore, the consensual efforts to support pastoralism in the Ecrins, through the installation of shepherds' huts or the developments of access points to the alpine pasture among other things, have allowed for more peaceful relationships. Yet, wherever you are, the essential part of what is at play is happening on the level of interpersonal relationships between national park agents and actors of the pastoral world. Note that in national parks, guards seem to play a major role in those types of interactions.

The Regional Natural Parks' Method

The size of the role played by these agents is even more obvious in regional natural parks where, as we said before, protection can be conceived only with the involvement of the local population, or at least with their representatives. Jean Blanc, who used to be a transhumant shepherd, organized in 1966 the Days of Lurs for the DATAR (Delegation for Territory Planning and Regional Action), where the regional natural parks' doctrine was conceived. He explained it was aimed at giving an answer to the following question: "Are we capable, for some homogenous and sensible '*pays*' to move beyond real estate, industrial and touristic development, in order to 'preserve, prolong, develop,' in permanent thought, including all concerned, a 'frame of life' in harmony with quality of life?" Even with its utopian side—or maybe because of it?—such a challenge is still as relevant today. Is it to say that it is met with success everywhere? The

testimonies of the agents of the regional natural parks of the Verdon and the Alpilles, who appear to have taken to heart the matter of pastoralism, seem to make it believable.

At the behest of the Verdon PNR's representatives, who were very eager to support pastoralism, the agents have put into action the directives of the "Green and Blue infrastructure," as part of the project "Campas," aimed at "regaining and bettering pastoral environments." Therefore, the defense of natural habitats of such rare species, animal or vegetal, and that of pastoralism appear to be part of the same purpose. One is beneficial to the other and vice versa. The work is time-consuming and complex as it involves, besides the mapping of the sites, obtaining the agreement of the owners, putting in place multi-year pasture conventions, and perhaps even setting up pastoral land consolidation associations (AFP), attributing them to one or several sheep breeders and following up on them. This backing has led the PNR to create the position of "support shepherd" who periodically comes to the aid of sheep breeders and shepherds in case of wolf attacks. With over ten wolf packs spotted in the park's perimeter, the situation has undoubtedly become difficult. Therefore, the creation of a second position of "support shepherd" is already being discussed.

At a lower altitude, in the Alpilles, where the wolves' presence is not yet a cause for concern, the elected representatives are rather worried about the danger of wildfire catching in the dry pine trees. They have all understood that sheep, goats, and bulls had to return to the hills and that their breeders should be received in good conditions when they come. Therefore, they have put in a lot of work on conciliations. Talks, without opposition, are still taking place with the hunters who do not want to see partridges or woodcocks leave the area or risk jeopardizing the crop they sow to attract wild game. Similar negotiations are under way with the agents of the ONF (National Forestry Office) who still worry about the grazing of sheep or goats, and with the private owners who must be convinced of their own interest in signing a pasture convention, etc. Confident that pastoralism is beneficial to the biodiversity of environments, these agents take for proof the scientific studies led on their territory about insects, birds, bats, and amphibian reptiles.

According to the park agent in charge of the Natura 2000 classified zones, who monitors with an utmost vigilance the evolution of "the substeppe course of annual grass," among others, the presence of the herd is a necessity. He would like this fact to be more largely acknowledged and hopes for a better communication on this point. He also wishes the park's charter, which is about to be renewed, could afford more space to pastoralism. The other agents—four in the team, each dealing more or less closely with pastoralism—share the same opinion. For them, all the op-

Figure 3.2. Natural regional park of Verdon, 2019. © Lionel Roux

erations funded by the European government (Life, Leader, FEDER, etc.) are opportunities to favor this form of sheep breeding. As they talk about the openings they have made by gyro-spinning before a sheep breeder and their herd finish the clearing, about the liaisons they plan between the pastoral "alveoli" maintained by pasture, about the settling of a young couple and their ewes, about the role the DFCI should play and about the negotiations they will start to ensure each of these actions succeeds, the benefits of pastoralism in the management of the Mediterranean forests is revealed. More broadly, it is the role it plays in the territory planning that is called into question. The regional natural park then becomes, as it was intended at creation, a "tool used for subtle land planning."

In any case, all the agents of the Verdon and the Alpilles PNR in charge of pastoralism rely on the expertise and support of the CERPAM. This organism, which we will return to, is in fact responsible for all matters of pastoral diagnosis as well as more technical evaluations.

Inside the National Natural Reserve of the Coussouls of Crau

In the plain of Crau, transhumant sheep breeding was always fragile because of the difficulties that breeders encounter on the markets for meat.

Yet, it seems to be enduring better than elsewhere in France and even beyond, in western Mediterranean regions, where almost everywhere the practice of transhumant breeding is scaling back.

Most of the irrigated Crau (around 13,000 ha) is composed of grassland whose hay is cut three times a year, in May, July, and September, to be sold under a "controlled designation of origin" (AOP) as "*Foin de Crau*." The fourth cut, in the fall, is left for the herds that have been brought back from the mountain and will remain in the meadows until the middle of February. They will then be led to the *coussouls* until June before going back up to the mountain for the next three or four months. Whether consuming grassland and hay, grazed on from October to February, or in the *coussouls* from February to June, the entire Crau, wet or dry, is put to use by sheep breeders over about 30,000 ha, of which 11,500 ha are *coussouls*. Part of the aim of the natural reserve, encompassing 7,400 ha spread over seven communes, is to "guarantee the future of transhumant sheep breeding and, at the same time, its jobs and economic activities." This is why it is managed, as was said, by naturalists of the Conservatory of Natural Areas of PACA (CEN PACA) as well as by representatives of sheep breeders, through the agriculture Chamber of the Bouche-de-Rhône. This double management is paralleled in the composition of the team working on the reserve which includes a technician from the Chamber in part-time employment on the reserve who was charged to see to the good relations between the team and the sheep breeders and shepherds.

Although she does not report major difficulties, she claims it is sometimes difficult to convince sheep breeders and shepherds that they should not install fences around areas of pasture. The use of stationary or mobile fences is actually a way to compensate for the lack of shepherds whose hiring has become more difficult nowadays, even more so since some people do not enjoy the shepherds' seasonal presence in Crau. The fencing refusal must, therefore, be a motivated decision. Though the naturalists observe for instance that sandgrouse preferably nest in open areas, their opinion is not firm on the issue of fencing. As a result, experimentations are under way. The technician also finds that, even if the intermediary position she is in, between the Reserve's naturalists and the sheep breeders, is not always comfortable, it is where she feels the most useful and she wishes to spend more of her time on mediation.

The only instructions given to the sheep breeders who pasture *coussouls* of the reserve, since it was created, is for them to keep doing things the way they have always done them. Yet, as one of the Reserve's agents observes, "the usual, the routine has never existed," for sheep breeders and shepherds are "in perpetual adaptation," always looking to overcome the constraints they must face, whether economic, social, or climatic. Conse-

quently, she follows very closely the evolution of pastureland in order to assert the consequences of changes in conduct on fauna and flora, to testify of their influence, either positive or negative. In this last case, she says, contact must be made with the sheep breeders and shepherds to consider with them how their use of the *coussouls* can be modified to favor biodiversity. The ban on use for a sector or the change of pasture calendars, for example, are done through such negotiations. This is the reason why this agent wishes to be able to communicate more with the sheep breeders and shepherds, at the least through an annual meeting. She notes that shepherds take an interest in her research, when she has the opportunity to communicate with them, yet, she regrets that she often is unable to find them again the next year as they move so fast from one place to another. She is conscious of her contribution to a form of protection implemented in Crau different from that of national parks. She believes in the collaboration of protection and pastoralism as a favorable agroecological model to aim for.

An Original Professional Organization in Provence-Alpes-Côte d'Azur

Before we come to the pastoral profession itself, the role held by the Center for Pastoral Studies and Implementations Alpes-Méditerranée (CERPAM), to which we have already made several allusions, must be mentioned. In between two worlds, this association was created in 1977 under the impulsion of the agriculture chambers of the six departments making up the Provence-Alpes-Côte d'Azur Region. Following the political decision of the PACA Region, CERPAM ceaselessly defends pastoralism there, turning its actors into credible and constructive partners. Thus, the CERPAM has proven very useful each time pastoral pasture was put to use in protected areas. We can mention, among other such examples, the action carried out since the 1990s between the Luberon Regional Natural Park and the INRA (National Institute of Agricultural Research) on "modeling active relationships between the management of biodiversity and the activities of sheep breeding" (Lasseur et al. 2010: 90–96). Environmentalists, who for the most part are academics working for institutions for the protection of nature and the establishment of an equalitarian dialogue between the involved parties, required a way to translate in their language and with their own references the pastoral know-how in all the variety of its practice and all its effects on the environment.

As the illustrations are numerous, and often hard to summarize in a few words, we will limit ourselves here to the tool developed by the

CERPAM in coalition with the National Institute of Research for Agriculture, Food and the Environment (IRSTEA), pioneer in the French field of agroecological research, and with the alpine pasture Federation of Isère (FAI), a tool which aims at precisely evaluating the quantity of fodder removed by a herd on its pasture. The exploitation of data obtained through their tool, on the degree of removal, the circuits of pastures, and the management choices, notably, leads to an accurate evaluation of the use of the pasture. This enables the thorough monitoring of the MAEC and, on the long term, of the consequences of climate change. Its results allow for the most objectivity in judging the state of the pasture, from good to deteriorated, and by extension to judge the conditions of life of the fauna living there (birds, reptiles, insects, etc.). Both the managers of the protected areas and the sheep breeders and shepherds are interested in the results. The great complexity of pastoral know-how[7] is mastered by sheep breeders and shepherds through the force of habit, observation, and the constant search for the benefit of their herds. It is now available and accessible, becoming readable and useful to other people. As one of the engineers of the CERPAM noted, the sheep breeders' interests rarely align with those of the protection organizations. Therefore, their role must be put forward indirectly. On this subject, the engineer is sorry that breeders and shepherds failed to regroup in an association to defend their interests in the Alpilles. Happily, there are exceptions, but there are still few pastoral breeders who are ready to give some of their time to defend the trade.

The Pastoral World against the Managers of Protected Natural Areas

"Breeding is a very difficult activity, and when a sheep breeder meets too many difficulties and gives up, it's final!" warns a transhumant sheep breeder. The unease is real in an occupation where people feel "mistreated and unloved" or even "left behind as others reinvent the world." In the image he holds of the protection of nature, the world is reinvented into one in which pastoral breeders do not have a place to exist. But pastoral breeders are the inheritors of a way of life which used to have no one to answer to, or maybe only had to answer to their animals, following long tracks they have ceaselessly traveled, from plain to high mountain, covering a territory they believe they know better than anyone. They have owned their knowledge and often their livestock for generations and they have trouble tolerating new constraints.

By surrendering the transhumance on foot to the livestock vehicles, by submitting to sanitary rules, by taking the financial supports and benefits

without which they could not exist today, by following the recommendations on protection from a wolf attack, the sheep breeders have changed nonetheless. They even have shown a surprising capacity for adaptation. And, yet, they must still obey the orders of managers who often appear convinced of knowing better than they do how to pasture an area, how many animals to put there, and what precautions to take to prevent the environment from being damaged from one year to the next.

Another transhumant sheep breeder, having spent many of his summers in one of the emblematic alpine pastures of the Mercantour National Park feels the same way: "There are two completely different worlds, where you can feel pastoralism is not a priority." He also deplores to have to park his ewes at night when it used to be so profitable for them to go find their own *couchade*, as he puts it, to spend the night, instead of forcing them to stand in the same over-pastured and manure-filled pen. He also believes the interdiction to set up impluviums is one more measure designed to push them to abandon the locations. He acknowledges the capability of the park's agents, and he respects them. Yet, he understands how "contempt has finally taken over both sides," and feels sorry for it. He also wonders why the park's project managers, who have done so much studying, are not trying harder for things to go well. He finds it unfortunate that the managers change so often, yet grudgingly concedes that "all the protected areas are located in pastoral sectors. The sheep breeders will have to deal with it."

"We would like to take our sheep to places that are not protected, to have a little more freedom," declares another sheep breeder, still wondering why the park reduced, on the pasture she rents, the allowed size of livestock from 1,900 heads to 1,700 without any explanation. Why should her shepherd not grill/cook in front of his hut anymore? Why are donkeys and goats prohibited? "The issue," she goes on, "is that they make us follow rules we don't understand and have no real effect. For them, everything must be done ideally, but in nature there is no ideal!" Obviously, the two perspectives are in conflict with each other, and there is no sign of the beginning of a mutual understanding of the other's interests or expectations.

Relationships are different according to whether the interlocutor of the manager of protected areas is a sheep breeder or a shepherd, which is to say, an owner or employee. We will leave out here the differences, which often causes discontent, pitting one against the other, and we will focus on what brings them together most of the time: their passion for breeding.[8] But we must also note that the young shepherds and shepherdesses, who are often the product of an urban environment, were formed in shepherds' school and maintain different a relationship with the protection

organizations: first, because it is not rare to meet young people who have studied for years after high school; and secondly, because they have a pre-existing interest in ecology and are already aware of the need to preserve biodiversity. Some even use this reason to justify their decision to become shepherd or shepherdess.

For instance, in the mountain, a shepherdess was outraged by the sight of Pyrenean mountain dogs, or *patous*, devouring lagopus' chicks, or, in Crau, passing time hunting ocellated lizards. She wonders if the mandatory ownership of a *patou*—without them, wolf attacks are no longer financially compensated—might not be more detrimental than helpful. She believes that the repeated attacks of the wolf will drive the poorest sheep breeders to abandon the mountain, for the benefit of the owners of the larger herds who have better means of defense and are used to the formalities. She perceives a real difference between the alpine pasture of Ristolas (Hautes-Alpes), classified as a Natura 2000 zone, where the herd she pastures there in summer is, according to her, watched from morning to evening via satellite pictures, where everything, from the dates of arrival and departure to the way of tending the sheep to the number of animals, is rigorously controlled, unlike the *coussouls* of the RNNCC "where they trust us blindly." There, she dislikes the incursion of tourists who "drive around us and our herds, five or six cars at a time. They hit the ewes and huts, take pictures of everything." However, hunters do not seem to cause her trouble. She would like to have more contacts with the RNNCC agents but "the Reserve doesn't ask us for anything," she admits, disappointed not to be put more to use or even to be considered more useful.

The regret of not having any return on the experimentations they take part in is expressed in several of the sheep breeders' and shepherds' testimonies, particularly as concerns the MAEC. Except for a few rare exceptions (in the circuit of "alpine pasture sentinel" and the tours organized by the CERPAM at the end of summer, noticeably) times for sharing are, indeed, nonexistent. Part of them at least would like to be associated more closely with the protection of the areas they pasture and several park or reserve agents wish to multiply the opportunities to communicate with them. What makes this meeting so problematic?

Improved Communication Needed to Benefit the Two Worlds

The previously mentioned testimonies were selected with the purpose of providing an overview of the main positions expressed. In regard to the protection structures, whether parks or reserves, we observe that their

differences lie more in the circumstances surrounding their creation and the personality of the people who represent them on the field, than in the nature of their administrative statutes. Most of them wish to have more time available to communicate with sheep breeders and shepherds. On their side, the actors of the pastoral world dislike not being a bigger part in the decision process of the protection and dislike the lack of information about the effects of the measures they are asked to follow. Would it be idealistic to attempt to balance this relationship by considering that the expertise of the sheep breeders and shepherds is as valuable as the one of the naturalists, field agents and members of scientific counsels? The question must be asked, for the managers of protected natural areas always possess the power of decision. It would be reckless to take that power away. Yet, could we not find more understanding from each side, through frequent discussions, activity reports, and regular meetings at the beginning and the end of the season? All this expressed in a clear and comprehensible language, accessible to the actors of the pastoral world, as the CERPAM knows to do? A recent workshop started to prepare minds for the idea that dispositions may be taken in this respect (Duclos, Fabre, and Garde 2017: 165). A second conference, initially scheduled for May 2020, was cancelled due to the pandemic, and would have developed the detail of the plan. We can hope nonetheless that the reflection will continue, one way or another, and that a constructive dialogue based on trust will finally begin between the two sides.

However, we can hardly conclude without linking this conflict to the division that opposes our contemporary over the idea they have of their relationship to nature, through the modes of protection they defend. Who may pretend to know the truth, between the supporters of a protected and rehabilitated nature in what will be left of its wilderness, and the others to whom nature and culture are part of an acknowledged whole, and to whom local knowledge and practices that have proven their sustainability should be encouraged and supported? We would obviously not have conducted our analysis in this manner if we were not more inclined towards this last suggestion. We must furthermore observe, as we have witnessed in innumerable debates on the return of the wolf, that confrontation is a dead end, dialogue is a necessity. We will conclude, although the effort might seem worthless to some, by conveying a newly recorded proposition, which is to register transhumance to the intangible cultural heritage of humanity. The almost one-hundred pages long registration sheet may surprise by its length and the hundreds of referents and references it contains.[9] It is nevertheless enlightening regarding the idea of heritage which emerges rendering the cultural inseparable from the natural.

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Jean-Claude Duclos, Chief Curator of Honorary Patrimony, has directed the Dauphinois Museum (Grenoble) since 2011. Experienced museum and exhibit designer, he has also written numerous works and articles about the ethnology of the alpine world and museology.

Patrick Fabre, agricultural engineer, is Director of the Maison de la Transhumance, at the Center for Interpretation of Mediterranean Pastoral Cultures (Salon-de-Provence). He has written numerous works and articles, and designed several traveling exhibits and interpretation tools (paths of discovery, teaching kits) around the profession of shepherd and transhumance.

Notes

1. In 2011, the UN estimated that the surface of protected areas will represent 12.9 percent of the planet (2011–2020, Décennie des Nations Unies pour la biodiversité).
2. The case of the community of Abriès (Queyras, Hautes-Alpes) is a good example of this phenomena. See Rosenberg 2014: 191.
3. See, in particular, Laslaz 2008.
4. Coussoul: from the Late Latin *cursorium*, referring to the grazing course of ovine herds in this plain.
5. *Avis du Conseil scientifique du Parc national du Mercantour au sujet des propositions d'installation d'impluviums en cœur du parc*, 15 February 2019.
6. See, among others, Vincent 2011: 450.
7. See, among others, Meuret 2010.
8. See, in particular: Bonnet, Teppaz, and Vilmant 2020: 24.
9. *Fiche d'inventaire du patrimoine culturel immatériel—Les pratiques et savoir-faire de la transhumance en France*, 10 May 2020: 98. Retrieved 1 June 2020 from file:///Users/lizziemartinez1/Downloads/Les%20pratiques%20et%20savoir-faire%20de%20la%20transhumance%20en%20France.pdf.

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