

1864, fell to a mere forty-five francs in 1869.⁵⁹ At the same time, a rash of fires swept through the maturing forests. While the vulnerability of this “invented” landscape to the vagaries of both international markets and nature was increasingly evident, it was the threat posed by local inhabitants themselves that proved most worrisome to forest owners.

Between 1868 and 1872, wildfires ravaged the *Landes*. Largely sparing the older forests of the Marensin and the forested dunes along the Atlantic coast, the fires struck the young pine stands of the *Grande Lande* mandated by the 1857 law. The worst damage came in 1870, when an estimated 40,000 hectares burned across the three departments. In January 1872, the Minister of Public Works dispatched the Director of Forests, Henri Faré, to the region to conduct an inquiry into the fires.⁶⁰

The oral and written depositions collected by the Faré inquiry revealed a landscape significantly different from the one envisioned by the proponents of the 1857 law. The ‘social forest’ imagined by many engineers, departmental officials and local landowners had failed to materialize. Efforts to maintain a balance between forest and communal pasture had given way to rapid forestation following the boom in resin prices. The sharp decline of sheep herds offers one indication of the environmental and social costs of forestation. Having reached its apogee by mid-century in the *Grande Lande*, shepherding fell into a tailspin after 1857. Between 1857 and 1862 the sheep herds in the department of the Landes declined by an estimated 22% and were in free fall after 1866. By 1873, the

⁵⁹ Dupuy, *Le pin de la discorde*, 67.

⁶⁰ Some depositants of the inquiry put the damages far higher. For instance, the engineer Dromart estimated 100,000 hectares in 1870 alone. Faré, *Enquête*, 195.

number of sheep in the department had shrunk to fewer than a third of the pre-1857 population, from 539,000 to 164,000.⁶¹

The hemorrhaging of the pastoral world was matched by upheaval in the agricultural realm. In the department of the Landes, the extent of land worked by sharecroppers increased by nearly 50% between 1852 and 1873. In part, this was the result of the consolidation of landholdings by wealthy property owners and their transformation into absentee landlords. It also reflected the evolution of the sharecropping or *métayage* system into the main form of exploitation in the new forest economy. As the young forests matured, the agricultural population was gradually replaced, or transformed into, a new workforce centered around the resin industry.⁶²

The official inquiry into the fires also revealed new social fissures brought about by forestation. In the testimonies collected by the Faré inquiry, landowners and local notables rejected natural causes for the fires, even though the region had suffered several years of low precipitation. Instead, they blamed the *pasteurs* or shepherds for the recent fires. It hardly seemed a coincidence, many noted, that the fires primarily struck recently forested *landes*. Deprived of their traditional pasturage and rebuffed in their attempts to lead their flocks into the young forests, *pasteurs* were accused of setting the fires to both increase pasturage and discourage further forestation. Alexandre Léon, the vice-president of the

⁶¹ Lescarret, "Parcs, bordes, parcours et bergers dans la Grande-Lande", 140-141; Raymond Pujol, "Contribution à l'étude de la race ovine landaise," in Klingebiel and Marquette *La Grande Lande*, 538-9.

⁶² For more on the evolution of the sharecropping or *métayage* system from agricultural exploitation to resin production and the social tensions associated with it, see F. Dupuy, *Le pin de la discorde*.

General Council of the Gironde and a prominent local landowner, echoed the sentiments of many when he suggested that the catastrophic fires were nothing less than the “revenge of the pastoral world.”⁶³

Once a figure of exotic difference perched on stilts amidst the communal moors, the *pasteur* was transformed into a calculating and enraged *incendiaire* in the depositions given at the inquiry. As custodians of the communal *landes*, *pasteurs* had long employed fire to both shape and maintain the surrounding environment. Incineration, known locally as *burle*, was a traditional practice on communal *landes* to rejuvenate pasturage by suppressing the woody growth of gorse, broom and heath.⁶⁴ Conflicts between pasturage interests and forest owners were hardly new to the region. Incineration could inflict serious damage on forested property, either by accident or by intention. In the forested coastal dunes and the western Marensin, suspicious fires were part of regional lore. However, they tended to be localized, usually confined to individual properties.⁶⁵

With the onset of forestation after 1857, pastoral fire became criminalized. Many landowners claimed to have discovered evidence of arson on their burned estates. The remains of specially designed torches had supposedly survived the fires. Made from dried manure and hardened resin, they were placed near a highly flammable source such as matches or gunpowder, allowing them to smolder before igniting. Reports speculated that such time-delay capabilities

⁶³ Faré, *Enquête*, 60. Faré noted that the phrase “revendication du domaine pastoral” was employed by no fewer than forty-eight respondents.

⁶⁴ The importance, both practically and culturally, of fire in the *Landes* is suggested by the number of terms for it in the Gascon dialect. *Burle* was also known as *brane*, *broc*, *huc* and *rase*. Félix Arnaudin, *Dictionnaire de la Grande-Lande*, v. 7 of *Oeuvres complètes* (Bordeaux: Parc naturel régional des Landes de Gascogne, 2001), 438.

⁶⁵ AN F10 2338, report of Henri Crouzet, August 17 1855.

made it the favored 'weapon' of the shepherds, masking their criminal activities. One source reported that they "had been told of a *pasteur* who once boasted, 'I can calculate the time it takes for a torch to burn so well that I'll wager at what hour eight days hence it will ignite.'"⁶⁶ Others speculated that to set fires without detection required an intimate knowledge of terrain and trails that only *pasteurs* possessed. The ancient web of *péguilheyres*, once the visible trace of movement through the communal *landes*, had become invisible conduits of local resistance across the privatized landscape.⁶⁷

Like the *pétroleuse* that haunted the imagination of the Parisian bourgeoisie during the Commune, the incendiary shepherd appeared to subvert the social order.⁶⁸ Their investments as well as their status in *Landais* society threatened by the fires, landowners vilified the *pasteurs* as agents of destruction allied to the arcane communal past.⁶⁹ As Léon lamented, "while we have tried to return [the *Landes*] to life and civilization, the arsonists want to make it revert to barbarism."⁷⁰ A property owner and retired notary in La Teste decried the destruction of forests that had increased the value of land a hundred fold by a "handful of primitive savages" who clung desperately to their communal

⁶⁶ Faré, *Enquête*, xxv, 51-2, 59.

⁶⁷ *Ibid.*, 275.

⁶⁸ Despite the obvious parallels, there is no mention of the *pétroleuses* in Faré's inquiry. The alacrity with which he was dispatched to the *Landes*, however, suggests that French officials had at least become sensitized to the political import of arson. For more on the *pétroleuse* as political symbol, see, Gay L. Gullickson, *Unruly Women of Paris: Images of the Commune* (Ithaca: Cornell University Press, 1996), 159-190

⁶⁹ The representation of pastoralists as roving arsonists has a long history in southern Europe and the Mediterranean. See A.T. Grove and Oliver Rackham, *The Nature of Mediterranean Europe: an ecological history* (New Haven: Yale University Press, 2001), 69-71; Stephen J. Pyne, *Vestal Fire* (Seattle: University of Washington Press, 1997), 89; and David Prochaska, "Fire on the Mountain: Resisting Colonialism in Algeria," in Donald Crummey, *Banditry, Rebellion and Social Protest in Africa* (Portsmouth, NH: Heinemann, 1986), 229-252.

⁷⁰ Faré, *Enquête*, 55.

pasturage. “Is there nothing one can do,” he exclaimed, “ so that civilization may advance through the sap of the trees?”⁷¹

The depiction of the *pasteur* as *incendiaire* implied that the fires were the work of a single subversive group. Yet one finds scattered evidence for widespread resistance to forestation. The small farmers and sharecroppers who depended on the communal *landes* to fertilize their meager crops of rye, millet and wheat were just as susceptible to the disruptions of forestation as the shepherds. Some of the depositions of the Faré inquiry suggested that the absence of arrests in the wake of the fires revealed not just the cleverness of the perpetrators but also popular collaboration. Léon, upset that not a single warning or fine, let alone formal accusation, was issued by local authorities, remained convinced that the fires, while started by the *pasteurs*, were “seconded by the absolute tolerance of local populations.”⁷² M. de Choise, of Captieux in the Gironde, was even more explicit: “[C]onfronted with the loss of their resources, a certain consequence of the alienation of communal lands, local peasants, already desperate, have been driven to exercise an unreflected vengeance...[against] this sort of invasion of what they have long considered their own property.”⁷³ In a rare case of prosecution in the Gironde, the convicted individual was not a *pasteur* per se but a small farmer who owned a troop of sheep. He admitted that he set the fires to recover pasturage that had been lost

⁷¹ Ibid., 202-3.

⁷² Ibid., 60.

⁷³ Quoted in Hervé Goulaze, “Les incendies de la Grande-Lande,” *Bulletin de la Société de Borda* 474 (2004): 244.

following the 1857 law.⁷⁴ Though the evidence of popular support for the fires is spotty, it seems reasonable to assume many suspected it. *Pasteurs*, after all, were but one part of the larger agro-pastoral economy. If they were indeed setting the fires, it is doubtful that they were acting alone.

From this perspective, the incendiary *pasteur* evoked in the Faré inquiry may have deflected attention away from the growing social tensions in the region. Acknowledging the fires as acts of popular resistance would have undermined the civilizing narrative of forestation that, promoted by the French state and adopted by local elites, justified the privatization of the communal *landes* in the name of progress, prosperity and the public good. Admitting the true costs of forestation risked further eroding relations with the rural peasantry whose labor was desperately needed to exploit the future woodlands. The forests would never be safe if they remained associated with the spoliation of the commons.⁷⁵

Forest owners, sensing the vulnerability of their new investments, began to distance themselves from the 1857 law. In an attempt to legitimize their standing in *Landais* society, many came to the defense of the remaining commons, pointing the finger at the state for imposing a law that had unjustly infringed on the local rights of property. According to the municipal council of Callens, the 1857 law, while it “gave communes an illusion of increased wealth”,

⁷⁴ Faré, *Enquête*, 269.

⁷⁵ Of course, neither would those of outside investors. One local historian has suggested that local landowners participated in the fires to discourage outside investors and secure lands more cheaply than they could on the open market. H. Goulaze, “Les incendies de la Grande-Lande.”

has become “ the cause of all the destruction in our unfortunate land.”⁷⁶ For the commune of Escource, it had “dealt a death blow to the ancient agricultural constitution of our land....[T]his new principle of state intervention in the administration of communal lands could only lead to the disruption of local interests from which have emerged these calamities.”⁷⁷ Cazauvieilh, the mayor of Salles and a member of the *Conseil général* of the Gironde, though he himself had benefited greatly from forestation, condemned the law for willfully misrepresenting communal lands as dangerous marshlands in order to justify their “improvement”, a “subtle trick [that represented] a “flagrant departure from basic principles of property in France!”⁷⁸

When the state, in 1873, proposed a regional system of fire protection it met with “universal condemnation” in a flurry of angry petitions.⁷⁹ Petitioners, the vast majority of whom were landowners, rejected state intervention into forest management on several grounds. First, the proposal threatened to deprive them of future revenue by requiring the clearance of private forest for the putative “public good” of firebreaks. Furthermore, its strict regulation of fire usage would cripple resin, tar and charcoal production, most of which took place in the forest itself. Last, landowners were furious over the proposition that forestry agents be used to enforce fire regulations and oversee forest management. Not only would they be hopelessly effective given the size of the territory but they promised to further aggravate the tensions between forest and pasturage that most agreed

⁷⁶ ADL 7M 420

⁷⁷ ADL 7M 420

⁷⁸ Faré, *Enquête*, 133-143.

⁷⁹ ADL 7 M 420, Marcel Monnier, “Rapport sur le projet de loi destiné à prévenir les incendies dans les landes boisées de Gascogne,” (1873).

were the root cause of the recent fires.⁸⁰ For petitioners the proposed law threatened to subvert the basic rights of property that the project of regeneration had championed. State intervention constituted a “sign of unwarranted distrust towards the communes” that had so willingly supported the law and represented “a serious blow to the dignity of citizens” in whose name the regeneration of the *Landes* had been undertaken.⁸¹

Petitioners’ invocation of pasturage as a resource threatened by the state must give one pause. As the primary beneficiaries of the sale of communal *landes*, the well-off landowners that packed municipal councils were hardly its most ardent defenders. Indeed, hadn’t the recent fires conjured of images of rampaging and blood-thirsty shepherds seething over the loss of pasturage to private landowners? Had they suddenly, from pangs of conscience, had a change of heart? In fact, this curious reversal most likely reflected landowners’ efforts to repair their social legitimacy singed in the fires. Calls to defend pasturing rights from clumsy and ignorant state foresters sought to recast property owners as true stewards of *Landes* and advocates of rural society. Having despoiled communes of much of their communal *landes*, property owners now presented themselves as defenders of communal interests.

In this moment of confrontation between state and local society, fire became not just an expression of local unrest or object of state management but a new boundary between center and periphery. Municipal councils warned of the consequences if unpopular fire regulations were imposed on the forests. The

⁸⁰ Ibid.

⁸¹ ADL 7M 420, Petitions from the municipal councils of Callen, Argelouze and Bandignan.

council of Maillas outlined the scenario feared by many: “If, owing to the forestry regime, one returns to depriving the herds of communal *landes*, the council fears that the fires will reappear with more force and more persistence [than before].”⁸²

In the official report on the rejection of the 1873 proposal, fire became the ultimate barrier between the state and the territory it sought to reclaim: “Far from extinguishing fires, you will re-ignite them...[F]ar from bringing peace you will spur new acts of vengeance and the populations of the *Landes*, still a little savage, easy to upset, quick to resist innovation...will still have recourse to crime, to arson, to satisfy their rancour.”⁸³

Conclusion

The “invention” of the *Landais* forest reflects the ambivalent relationship between nature and state-building in modern France. Widespread pine afforestation in the region attested to the resurgent state under Louis-Napoleon, who sought to reshape not only the urban centers but also the hinterlands of the nation. The pine forests, made possible through the privatization of communal moors, the encouragement of urban investment and the extension of state expertise, promised to vanquish a notorious wasteland. They transformed a largely subsistence agro-pastoral economy into a capitalist economy of resin and timber production. Yet this engineered landscape came at a high cost. By forcing the sale and forestation of over 300,000 hectares of communal *landes*, the

⁸² ADL 7M 420, Petition of municipal council of Maillas.

⁸³ ADL 7M 420, Monnier, “Rapport,” 8.

French state unleashed an environmental and social revolution it could not entirely control. As local landowners and foreign investors scrambled to exploit the new land market, they re-shaped the outcomes of forestation. While it brought an influx of revenue for public roads, bridges, schools and churches, forestation also sharpened class lines, enriching landowners and village notables while displacing many of the rural poor who were ill-equipped for the new forest economy. Monoculture pines replaced barren moors but were confronted with new threats of fire and disease that absentee landowners were reluctant to address in any collective fashion.

While the fires had taken a toll on state claims over the forest, they had provided an occasion for the assertion of new local attachments. The surviving forests would mature under the new political order of the Third Republic as an important local resource, both material and symbolic. Spurred in the name of the very principles it stood for, the Third Republic state conceded the management of the forest to its owners. As a policy of benign neglect settled over the pine woodlands, local inhabitants were left to sort out the long-term social and environmental consequences of *their* engineered landscape. Despite their promises, landowners did little to curb the rate of forestation and preserve pasturage. As we will see in Chapter Six, the problem of fire haunted the commercial forests and became a new source of tension between Paris and the *Landes*.

Chapter Four Mastering Water in the Camargue

Introduction

On the evening of May 30, 1856, the Rhône river, swollen by weeks of snowmelt from the Alps and heavy spring rains, surged over and through the dikes around Arles. While the city itself was spared extensive structural damage, the breaching of two supposedly “insubmersible” dikes in the southern hamlets of Trinquetaille and Rigondon had inundated large portions of the upper Camargue, delta of the Rhône river.¹ A local constable described the grim situation at in the hamlet of Gimoux, six kilometers from Trinquetaille, where 28 inhabitants were stranded. Despite their precarious situation, they refused to take refuge in Arles, including a woman who had given birth only days earlier, arguing that they had no relations to put them up.² The tiny village of Saintes-Maries-de-la-Mer, perched along the coast, beseeched the emperor for assistance: “[I]t dares hope,

¹ Archives départementales des Bouches-du-Rhône (hereafter ADBR) 1N 154, *Recueil des délibérations des vœux du Conseil Général* (1856), 14-16.

² Archives municipales d'Arles (hereafter AMA) J41, report from a member of the *Gendarmerie imperial* at Arles, 2 June 1856.

Sir, that your inexhaustible kindness will come to its aid in these first moments [when] it finds itself suddenly bereft of communication, labor and bread.”³

The Camargue marked the final destination on the Emperor’s tour of the flooded basin. He surveyed the submerged lands in a small skiff and promised local inhabitants that the nation would not forget them. It was a memorable visit, the prefect noted, one that would “ remain etched in the heart of our population.”⁴ The Camargue would become, like the Alps and the *Landes*, a mastered nature. “In visiting the Camargue,” one official chronicle reported, “[the Emperor] enthusiastically embraced the project of draining and improving this country, which the poor management of water has ruined but which will become the most rich and most fertile of all of France.”⁵ Fetid and sterile landscapes, no less than natural catastrophes, were affronts to the Bonapartist vision of productive territory in the service of the nation.⁶

The Emperor kept his promise. In the aftermath of ruined crops, dead livestock and stranded peasants, the legislature released credits to the *Ponts et Chaussées* administration to repair the dikes along both the Grand and Petit Rhône and to erect an immense sea wall along the coast. Inland, engineers envisioned the creation of an intricate circulation system, made up of irrigation and drainage canals, sluice ways, pumping stations and secondary dikes that would transform the marginal and unproductive delta into a French version of the

³ ADBR 107E 1D6, “Supplique à Sa Majesté l’Empereur,” reproduced in the *procès-verbal* of the municipal council of Sainte-Maries-de-la-Mer, 8 June 1856.

⁴ *Recueil des délibérations des vœux du Conseil Général*, 14-16.

⁵ C. Robin, *Les inondations de 1856, voyage de l’Empereur* (Paris, 1856), 116.

⁶ A. Méjean, “Utilisation politique d’une catastrophe: le voyage de Napoléon III en Provence durant la grande crue de 1856,” *Revue historique* 597 (1996): 139.

Nile. From now on, water passing into and out of the Camargue would be at the hands of man or not at all.

As in the alpine regions and the *Landes*, state intervention was justified in terms of the public good. Emphasizing the wide-spread benefits to the nation over the narrow interests of both private capital and local tradition, the concept of the public good was central to engineering visions of rationalized territory.⁷ In attacking the local problems of flooding, sterility and insalubrity, *Ponts et Chaussées* engineers viewed themselves as agents not just of the state but the nation. What could be better for the nation than to replace unproductive wasteland with fertile crops and pasture, drain insalubrious swamps and construct dikes to protect against the fury of floods? Yet engineers soon discovered that their notion of the public good was a slippery one, often appropriated and invoked by other groups whose interests did not coincide with their own. The hydraulic re-invention of the Camargue proved difficult in the face of competing claims over water and property rights. Try as they might to disentangle nature and local society in their quest to rationalize the Camargue, engineers found themselves at odds with both.

A “Watery Desert”: The Camargue in the nineteenth century

Extending south from the city of Arles in the department of Bouches-du-Rhône, the delta of the Rhône river gradually merges into the sea amidst a

⁷ Theodore Porter, *Trust in numbers: the pursuit of objectivity in science and public life*. (Princeton: Princeton University Press, 1995), 114-125.

jumbled puzzle of interlocked lagoons and marshlands. Though its watershed covers 930 square kilometers (145,000 hectares), the delta has become synonymous with the Camargue, the triangular wedge of land formed by the two branches of the Rhône and the Mediterranean sea. Split between just two communes, Arles in north and Saintes-Maries-de-la-Mer in the south, the territory covers over 75,000 hectares.

For most nineteenth century observers, the Camargue was unredeemed wasteland, out of place in the civilized nation of France. The sweep of its “desert plains”, one commentator wrote, was matched only by those of the *Landes de Gascogne* in the southwest.⁸ For Perrin de Jonquières, a wealthy *Arlésian*, it was “an unhealthy country that, resembling the sterile steppes of Africa and Asia...seemed to challenge civilization itself.”⁹ Nature itself appeared to struggle in this primordial corner of the world. Traveling down the Petit-Rhône, an English traveler remarked: “On descending the sinuous course of the river the hills disappear, the horizon is level as the sea, and all around is desert. Then the current of the Rhône seems to fail wholly, the waters of the river and of the lagoons on both sides of its bed mingle, and become confounded in one sheet. All nature is dead.”¹⁰

Contrary to popular opinion, nature was alive and well in the Camargue. Indeed, it suffered from what one might call too much nature. The Camargue was, in effect, a captive of the river that created it. Fed by spring run-off and

⁸ *Les Bouches du Rhône: Encyclopédie départementale*. v.13 (Marseille: Archives départementales, 1928), 46.

⁹ ADBR 8S 2 (5), “Procès-verbaux des séances et Avis de la commission d’enquête,” (1862), 7.

¹⁰ S. Baring-Gould. *In Troubadour-Land: A Ramble in Provence and Languedoc*. (London: W.H. Allen & Co., 1891), 23.

autumn rains, the Rhône regularly inundated the delta. Local inhabitants were intimately familiar with the danger of floods. Earthen dikes had been built and maintained along both arms of the Rhone since Roman times in an attempt to secure agricultural lands from the quixotic temper of the great river. On the eve of the French Revolution, over 110 kilometers of dikes and levies guarded the banks of the Rhône in the communes of Arles and Saintes-Maries-de-la-Mer. Yet their piecemeal construction, discontinuous and un-coordinated, offered only modest protection. The costs of flood prevention works, like those of irrigation and drainage, required both capital and collective organization, neither of which were in abundance in the thinly-populated Camargue.¹¹

The sea took its toll as well. The lower lagoons were no more than a meter or two above sea level. High waves and strong southern winds could push sea water inland through natural channels known as *graus*, swelling the lagoons and flooding surrounding fields and marshes. Underground caches of salt water, under the influence of intense evaporation in the summer months, leached salts into the rich alluvial soils of the upper Camargue, ruining them for agriculture. There was no more iconic terrain of the region than the *sansouire* or *sansouiro*, a Provençal term specific to Camargue that denoted the landscape of sterile saline flats, scattered with glasswort and other salt-resistant succulents, flooded in winter and parched white in summer.

Like many wetland environments of the era, the Camargue was associated with insalubrity and illness. Well into the nineteenth century, both

¹¹ Danielle Bégot, “La Camargue dans la première moitié du XIX^{ème} siècle” (Thèse d’histoire, Université de Provence, 1976), 13-14.

medical science and popular culture continued to attribute the spread of disease to the mysterious influence of miasmas.¹² Marshes were the most evident culprits, cauldrons of decaying animal and plant matter that exhaled unhealthy gases and mists. In a region where even the waters of drainage and irrigation ditches ran slow enough to be considered stagnant, miasmas became synonymous with the Camargue. For the engineer Alexandre Poulle, miasmatic marshes were one of the defining features of the region:

In winter the mire of marshlands is submerged; the decomposition of dead organisms is suspended, the miasmas pose no threat; but come springtime, in summer and in the fall, the scorching sun, heating our climates, hastens evaporation and provokes purification... The corrupted drinking water and miasmas that the heat makes the marshes exhale produce here frequent illnesses among the animals and carry to men all sorts of fevers and disease.”¹³

One Arles official regarded the Camargue as nothing less than the “fearsome seat of fatal epidemics for all of Provence.”¹⁴

The region was particularly known for its numerous cases of *fièvres intermittentes*, a ubiquitous term that most likely referred to symptoms of malaria. Well into the nineteenth century, doctors and local inhabitants alike regarded miasmas, not mosquitoes, as the main vectors of these *fièvres*.¹⁵ Though chemically-produced quinine was in circulation by the 1820s it was used

¹² Alain Corbin, *Le miasme et la jonquille : l'odorat et l'imaginaire social XVIIIe-XIXe siècles* (Paris: Aubier Montaigne, 1982); J. Guillerme, “Le malsain et l'économie de la nature,” *Dix-huitième siècle* 9 (1977), 61-72.

¹³ Quoted in Rivière, *Mémoire*, 28-29.

¹⁴ Rivière, *Mémoire*, 33. Despite the reputation as a *foyer* of disease and pestilence, on occasion the Camargue could appear as refuge. For instance, when the cholera epidemic of 1832 struck Arles, many residents fled to the Camargue, bringing the disease with them. Bégot, “La Camargue,” 63-66.

¹⁵ Though chemically-produced quinine was in circulation by the 1820s it was used sparingly and often regarded with suspicion by both the medical community and local inhabitants. In the Camargue, traditional remedies prevailed, such as boiled sea turtle and tamarisk leaves. Bégot, 67-68.

sparingly and often regarded with suspicion by both doctors and local inhabitants.¹⁶ In the Camargue, traditional remedies prevailed, such as boiled sea turtle and tamarisk leaves.¹⁷

The mingling of salt and fresh water was another sign of the disorder of the environment. In the lower Camargue, the thriving biotic life typical of estuary environments was viewed as compounding the noxious effects of stagnant water. Municipal leaders in Saintes-Maries-de-la Mer attributed high mortality rates to the “fatal” mixing of salt and fresh water in the canals that ran from the Petite Rhone to the village.¹⁸ Even the fish occasionally caught there suspected of carrying disease.¹⁹

The Camargue was also under perpetual assault from its winged inhabitants. Though the role of the mosquito in the transmission of malaria would not be widely accepted until the turn of the century, they were considered a major plague. The engineer Alexandre Poulle found them to be extremely vexing: “They sweep down on their prey, insinuate themselves into ones clothing, penetrate through all the openings of the organs and their troublesome buzzing, as well as their venomous bite leaves one no rest. One might say that nature created these fearsome insects expressly to keep man away from such pestilential places.”²⁰ According to Pierre Véran, an indefatigable chronicler of the region, inhabitants

¹⁶ Chincona bark, the natural source of quinine, had been used since the 18th century but it was not until 1820 that the French chemists Pelletier and Caventou succeeded in isolating the compound. Despite its availability in sulfate form, it was not widely embraced until the early 20th century. William B. Cohen, “Malaria and French Imperialism,” *The Journal of African History* 24 1 (1983), 23-36.

¹⁷ Bégot, 67-68.

¹⁸ ADBR 107E 1D 6, *Délibérations du conseil municipal des Saintes-Maries*, 11 April 1856.

¹⁹ Bégot, “La Camargue,” 55.

²⁰ Alexandre Poulle, *Etude sur la Camargue* (1835) republished 1985, ed. René Baranger, 63.

of the Camargue could be known by the ravages such creatures provoked on his body: “The people who inhabit the country have their faces and flesh so covered by small dots occasioned by the bite of insects that one could say upon regarding them that were afflicted with leprosy.”²¹

Improving Nature: Local agriculture and early efforts at reclamation

The Emperor’s declaration to transform the Camargue into a veritable paradise of agriculture was not unprecedented. Despite its inhospitable environment, the Camargue had been exploited for centuries by local populations. In contrast to the surrounding region of Provence with its strong village-centered culture and pattern of small-scale property ownership, the Camargue was dominated by large isolated estates. Their roots can be traced back to the beginning of the seventeenth century when the city of Arles, attempting to recover from the devastation of religious wars, sold off most of its communal lands to local elites. The Revolution did little to alter the size of estates, as the properties of religious orders and fleeing aristocrats passed, intact, into the hands of wealthy absentee landlords.²² Estates tended to spread out around a single farmhouse or *mas*, around which orbited more modest dwellings of tenants and laborers.²³ Pierre Véran, a indefatigable 19th century

²¹ Médiathèque d’Arles, fonds patrimoniaux (hereafter MA) ms769 7, Pierre Veran, “Notice pour servir à la description topographique et historique de l’isle de la Camargues’ (1810)

²² Paul Allard, “Fortunes et classes sociales à Arles au 19^{ième} siècle,” (Thèse de doctorat de 3^{ème} cycle, Université de Provence, 1977), 39.

²³ Bégot, “La Camargue,” 49-50.

chronicler of the region, recorded a mere 189 residences in 1810.²⁴ Hamlets were few and far between. The largest was Villeneuve, twenty-three kilometers south of Arles, tenuously linked to the outside world by an earthen road practically impassable between fall and spring. This small community of under 1000 must have seemed worlds away from the relative bustle of Arles and its over 14,000 inhabitants, though they belonged to the same commune.²⁵

At the time of the first cadastral survey in the 1830s, approximately one-sixth of the Camargue was under cultivation.²⁶ Geared towards outside markets, there was very little subsistence agriculture. Cereal crops, mainly wheat, were grown along the banks of the Rhône near Arles. Better drainage, more convenient access and greater supplies of labor made the upper edges of the Camargue relatively productive, though the risks from floods discouraged anything other than annual crops. Constrained by the harshness of the Camargue environment, local landowners were reluctant to embrace new practices, particularly if they required collective action and large sums of capital or threatened resources or rights they considered inalienable.²⁷ The bulk of the scattered Camargue population, probably no more than 3,500 at mid-century, was made up of tenant farmers. Like the property owners whose lands they worked, they tended to maintain their primary residence in Arles or elsewhere, spending only the summer months in the Camargue. Leases were restrictive, typically lasting 8 or 9 years with clauses that mandated fallow periods between

²⁴ Veran, "Notice"

²⁵ AMA F63, "Nomenclature des habitations composant la commune d'Arles" (8 May 1822).

²⁶ Bégot, 83.

²⁷ Paul Allard, *Arles et ses terroirs, 1820-1910* (Paris: Editions CNRS, 1992)

plantings to conserve soils, and required tenants to supply much of their own equipment and animals.²⁸

South of the intermittent agricultural lands lay the vast expanse of the central Camargue, dominated by scrub, marsh and lagoon. Sheep were the main denizens of this region. Dating back to Roman times and well-represented in the medieval fairs at Beaucaire, sheep were a fixture of both the productive and imagined landscape of the Camargue in the nineteenth century. Following the Revolution, one landowner boasted that the territory of Arles contained more sheep than any other commune in the new Republic, estimating about 300,000 between the Camargue and neighboring Crau.²⁹

Capital intensive reclamation schemes date back to the early 19th century when investors, engineers and agricultural reformers were first drawn to the region. Falling rents between 1830 and 1848 led to the widespread sale of land to ambitious agricultural companies that sought their fortunes in the untamed Camargue.³⁰ During the July Monarchy, the two most notable ventures were carried out by the *Compagnie générale de dessèchement* and the *Société agricole de dessèchement et de colonisation de la basse Camargue*, otherwise known as the *Chateau d'Avignon*. Founded in 1830s with high expectations and much fanfare, both companies purchased large amounts of marshy land in the lower Camargue in the hopes of transforming it into a fertile basin. Through the construction of dikes, irrigation channels and drainage ditches, the companies

²⁸ ADBR 7M 35, report from the *Chambre d'Agriculture* of Arles (1853); Rivière, *Mémoire*, 80-81.

²⁹ Quoted in Aimé Orange and Maurice Amalbert, *Les Mérinos d'Arles* (F. Genre & Co., 1924), 9.

³⁰ Bernard Picon, *L'Espace et le temps en Camargue: essai d'écologie sociale*. (Paris: Editions ACTES/SUD, 1978), 60-8.

expected to develop cash crops such as willow plantations, rice paddies and tobacco and beet crops. In its brochure to prospective investors, the Viscomte Bouillé, president of the *Chateau D'Avignon*, projected that the lands purchased at an average of 110 francs per hectare would, within just a few years, be worth over 1600 francs. Such wildly inflated expectations severely underestimated the environmental obstacles, particularly flooding, to agricultural expansion. Within ten years both outfits were bankrupt.³¹

The state, too, had tried its hand in the Camargue. A series of reports commissioned early in the century outlined the broad strokes of reclamation. In 1810 the chief engineer Gorsse drafted a project that called for the construction of transport canal linking Arles and the salt refineries along the coast, rudimentary irrigation canals in the upper Camargue and the wide-scale drainage of marshlands. Gorsse's successor, Alexandre Poulle, promoted a more comprehensive plan of reclamation in the 1820s and 1830s, discarding the idea of a transport canal and adding the design of a sea wall to protect against flooding from the Mediterranean. Through the first half the nineteenth century, however, the efforts of state engineers from the *Ponts et Chaussées* administration remained in the abstract, lacking both funding and local support.³²

Imperial Ambitions and Local Realities: The troubled history of the digue à la mer

³¹ The *Chateau d'Avignon*, flush with seven million francs in capital in 1836, was sold for a paltry two million a decade later. *Les Bouches du Rhône*, 320-324; B. Picon, *L'Espace et le temps en Camargue*, 80-83; Allard, "Fortunes", 51.

³² *Les Bouches du Rhône*, 317-320; Poulle, *Etude de la Camargue*.

The 1856 floods catalyzed efforts at large-scale reclamation. The destruction wrought that spring, combined with the promises of support by the Emperor, added a new sense of urgency to the conquest of the Camargue. The *Conseil général* of the Bouches-du-Rhône called for the immediate construction of a sea wall or *digue à la mer*. By acting quickly, officials and engineers hoped to take advantage of the natural desalinization that had occurred during the floods, particularly in the Vaccarés and lower lagoons that had filled with fresh water.³³ The government concurred, declaring the sea wall a project of public utility in August and releasing 600,000 francs for its construction. It was completed in 1858.³⁴

The choice of a sea wall may at first appear puzzling. Lost amid the estuaries and lagoons of the southern Camargue, it was hardly an imposing feature on the landscape. An earthen embankment no more than 3 meters in height and twenty kilometers in length, the sea wall snaked along the coastline between the mouths of the *Petit* and *Grand Rhône*. Three sluices bisected it at strategic points to control the flow of water in and out of the lagoons. How was this modest engineering achievement a solution to the riddle of the Camargue?

For engineers, the sea wall was the key to hydraulic control and agricultural prosperity in the region. In order to create a favorable environment for agricultural crops, engineers reasoned, one had to first solve the riddle of water. Drawing on the plans of their predecessors, they envisioned a three-prong approach: isolate the Camargue from both river and sea through the construction

³³ ADBR 1N 154 , *Délibérations du Conseil général des Bouches-de-Rhone* (1856).

³⁴ Sigolène Pailhes, "La digue à la mer ou les mésaventures de l'Etat en Camargue," *Provence historique* 200 (2000): 195.

of vast dikes; construct a series of major irrigation and drainage canals that would act as central arteries for water distribution and evacuation; and, finally, establish mechanized pumps, secondary irrigation and drainage channels and roads to integrate the whole of the territory into a new productive grid.

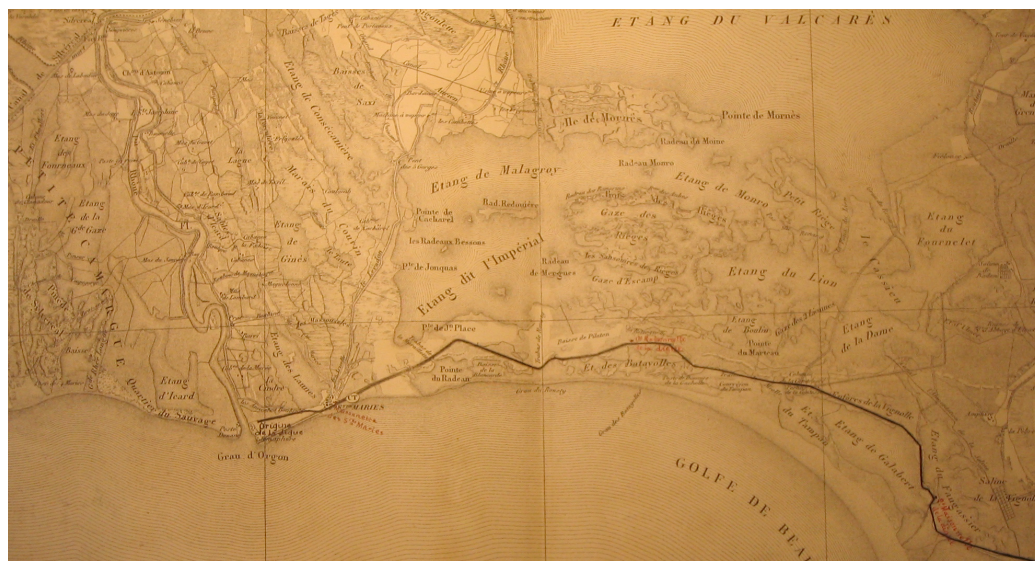
The key to this artificial system of circulation was the Vaccarés lake, the large brackish basin that dominated the lower Camargue. The lowest point in the delta, the Vaccarés served as a natural drainage basin, collecting run-off water from the agricultural uplands as well as seawater via the interlocked lagoons to the south. Yet it was unpredictable. When swollen from heavy rains or sea surges, the Vaccarés effectively backed up the entire plumbing of the delta. To control the Camargue one had to control the Vaccarés.

While engineers could do little about the vagaries of precipitation, they could do something about seawater. By cutting off the lower Camargue from the sea, engineers hoped to reduce the overall volume of Vaccarés lake and lower lagoons in order to improve their capacity as drainage reservoirs for agricultural lands located in the upper Camargue. They calculated that the Vaccarés had to be maintained one-half meter *below* sea level in order to function as a sufficient drainage basin for the Camargue . There were secondary considerations as well, such as the reduction of saline levels in the soils, the protection of fisheries in the lower lagoons and the ‘sanitization’ of brackish waters considered unhealthy, particularly around Saintes Maries de la Mer.³⁵

³⁵ ADBR 107E 1D 6, *Délibérations du conseil municipal des Saintes-Maries*, 11 December 1853 and 11 April 1856.

For many, sea wall promised to solve the riddle of the Camargue. The Chamber of Agriculture in Arles was transfixed by the vision of a transformed Camargue. One member boldly predicted that the sea wall would usher in a new era of prosperity, creating an agricultural paradise where one could expect “ the annual production of 150,000 hectoliters of wheat, vast flocks of sheep, the establishment of bountiful fish farms, the perfection of the native equestrian race and the cultivation of great amounts of forage, oats and barley...”³⁶

Figure 4. Engineering plans for the *digue à la mer*



The aura of promise and good will that initially surrounded the sea wall did not last, however. In attempting to modify the environment of the Camargue, state engineers quickly became entangled in a series of bitter conflict over water and property rights that undermined the effective administration and upkeep of the dike.

³⁶ ADBR 7M 35, report from the *Chambre d’Agriculture* of Arles (1856)

Despite its modest design, the sea wall was a technological artifact that bound designers and users together. To function properly, it required the collective support of local inhabitants. The state, though it provided the funds for its construction, was not interested in assuming the long-term upkeep of the sea wall, a necessity given the annual toll taken by storms, wave action and occasional vandalism. Engineers expected that once the wall was built, local landowners would willingly take over its management and costs. In effect, the sea wall required local inhabitants to follow the “script” of engineers, to accept it as an instrument of the public good and therefore accept the responsibility of its upkeep. This intended “geography of responsibility”, as Madeleine Akrich puts it, was frustrated by the fact that local users did not view the sea wall the same way engineers did.³⁷ An instrument of environmental control in the minds of engineers, the sea wall also became a site of competing claims to the Camargue and its resources, one that ended up shaping a future for the region unanticipated by its designers.

The first voices raised in protest against the sea wall came from the fishing and salt-making industries of the lower Camargue. They complained that the sea wall infringed on their rights to the access of seawater by blocking its flow into the lower lagoons.³⁸ While the *Chateau d’Avignon* declared that the sea wall severely damaged their fisheries, the recently established salt refineries *Henri*

³⁷ Madeleine Akrich, “The De-Description of Technical Objects,” in *Shaping Technology/Building Society: Studies in Sociotechnical Change*, eds. Wiebe E. Bijker and John Law (Cambridge, Mass.: MIT Press, 1992), 205.

³⁸ These well-documented rights were rooted in the sale of the Vaccarés and its “dependencies” (all the lower lagoons) to the city of Arles in 1225 by Hugues de Baux, which eventually passed into private hands in the 18th and 19th centuries. The rights of access to fresh and salt water were explicitly granted in the original title and subsequently upheld in later deeds. AMA O173, report of *ingénieur ordinaire* Bernard (March 13 1861).

Merle and the *Salins du Midi* complained that it threatened their production by preventing access to seawater.³⁹ The latter brought a suit against the state, arguing that the sea wall had rendered its salt works useless. The state, it argued, had violated its rights of access to sea water and should either compensate the company for damages incurred or agree to undertake the necessary works to re-establish water flow to its *salins*.⁴⁰

State engineers attempted to respond to the claims of the *salinier* industrialists. They submitted a modified plan of reclamation that attempted to guarantee the water rights of various companies as compensation for their relinquishment of future claims of indemnities against sea wall. They proposed segmenting the Vaccarés and lower lagoons into discreet usage zones through a system of dikes, canals and channels that would allow each group to maintain the ideal environment for their economic interests. Hence, the lower lagoons would be protected by a secondary dike from the fresh water run-off of Vaccarés while new sluices would be added to re-establish the flow of sea water. In order to finance this work, the establishment of a local *syndicat* was decreed in 1859. It was to include all landowners in the Camargue who, according to engineers, were the direct beneficiaries of the sea wall. Not only would it be responsible for

³⁹ While the abolition of the salt tax or *la gabelle* following the Revolution had spurred the growth of *salins* in the Camargue, the institution of a new tax under the Empire coupled with a shrinking foreign market had devastated the industry. The growing industrial demand for *soude* (sodium carbonate) in glass- and soap-making production revived salt production in the 1840s. The chemical engineer and capitalist Henri Merle (1825-1877) established the Salin-de-Giraud in 1855 to pair with this chemical factory in the Gard while the Salins du Midi followed his lead two years later. Gérard Boudet, *Le sel du Midi au XIXe siècle: La renaissance des salins du Midi de la France* (Paris: CSME, 1995); Picon, *L'Espace et le temps en Camargue*, 83-88.

⁴⁰ AN F10 4190, "Déclaration du Gérant de la Société des Salins du Midi" (1863); "Mémoire pour la Compagnie des Salins du Midi contre l'Etat" (1863) For details on this excruciating process that dragged out over 40 years, see Sigolène Pailhes, "La digue à la mer".

raising the 250,000 francs estimated by engineers to modify it, it would also take over its legal management.⁴¹

Local landowners roundly rejected the proposal. They were not impressed with what they viewed as a backroom deal between representatives of the industrial companies and state engineers. In their minds, the state was merely trying to dodge its legal liability. The decree of 1859, they pointed out, clearly shifted the onus from the state to local inhabitants. The major sticking point was Article 13 which made the *syndicat* legally responsible for all future claims of damages caused by the sea wall.⁴² The prospect of facing endless litigation over indemnities claimed by the *saliniers* led the majority of landowners to reject the proposal. And since any apportioning of future contributions would require an expensive cadastral survey that landowners had no intention of funding, the plan for local management of the sea wall failed to materialize. Worse, landowners viewed the failed negotiations as opening a rift between agricultural and industrial interests that would impede any project to improve the Camargue. At a public hearing in 1862, the lawyer Achille Gautier-Descottes, spokesman for the majority of landowners, roundly criticized the state for inciting a new set of territorial conflicts over the future of the region:

By substituting the powerful action of the state for a *syndicat* of property owners, the government has bequeathed to the *syndicat* a future of legal disputes without end, leading to enormous indemnity settlements. By thereby renouncing any direct responsibility in the affair and hence allowing a conflict between property owners and *saliniers*, the State has destroyed the basis for all its [improvement] projects.⁴³

⁴¹ AMA O173, report of *ingénieur ordinaire* Bernard (March 13 1861).

⁴² ADBR 10S 32 (47-8), *Recueil des documents relatifs à la digue à la mer* (Arles, 1904).

⁴³ Quoted in Léon Gautier-Descottes, *Essai historique et juridique sur le Vaccarès, les étangs inférieurs de la Basse-Camargues et le régime des écoulements de Camargues*. (Paris, 1910), 114

Hence began the odd history of the *Syndicat de la digue à la mer* which, though it met regularly since 1859, refused to accept any responsibility for the sea wall it was organized to manage.⁴⁴ By the 1860s many Camargue property owners, early supporters of the project, did not have a favorable opinion of the sea wall. Sentiments had hardened to the point that a petition to the Emperor began to circulate in the region, claiming that local interests were being sacrificed for those of a few wealthy industrialists.⁴⁵ As one member of the non-functioning *syndicat* dryly remarked, “[t]he first step in the path towards the amelioration of the Camargue has led to the abyss.”⁴⁶

The rejection of the treaty by landowners left the state in the unenviable position of having to maintain the sea wall itself or else watch it fall into ruin. For engineers, it was an essential component of their plans for reclamation, particularly once construction finally began on the three drainage canals that would use the Vaccarés as a reservoir. Between the 1860s and 1880s, state engineers reluctantly carried out necessary repairs and maintenance. An exasperated Minister of Agriculture, upon receiving yet another request for credits to repair a section of the wall, wondered if granting the 12,000 francs was simply compounding the problem. Did it not make property owners even more indifferent to the maintenance of the sea wall and ensure that engineers would soon be back asking for more money? What had begun as an attempt to jump

⁴⁴ The *syndicat* would not officially begin operating until 1892 when the state finally gave in and funded a cadastral survey. Sigolène Pailhes, “La digue à la mer”, 197.

⁴⁵ ADBR 10S 32 (47-8), report of the *sous-préfet*, 10 July 1860.

⁴⁶ Deliberations of the *Syndicat de la digue à la mer*, 12 January 1861, in *Recueil des documents relatifs à la digue à la mer*.

start the agricultural conquest of the Camargue had become an albatross for the French state.⁴⁷

The protests of both industrial companies and landowners revealed a fundamental miscalculation on the part of state engineers. Not only did they fail to account for the effects of the dike on the production of *salins* and fisheries, they also underestimated the contested nature of drainage in the region. The sea wall, while it did dramatically alter the environment of the Camargue by reducing salinity and improving drainage, also exacerbated and compounded tensions over water use in the region. The drainage of irrigation waters from the upper Camargue, which the sea wall was designed to facilitate, would be disastrous for the industrial salt works of the lower Camargue which required an assiduously-managed saline environment to maintain their salt flats. This basic environmental incompatibility, largely unappreciated by engineers, marked the beginning of a long struggle between agriculturalists in the north and salt producers in the south over the rights of water flow in the region.⁴⁸

The Politics of Drainage: The Bernard-Perrier plan and the problem of marshes

When *Ponts-et-Chaussées* engineers submitted a revised program of reclamation for public approval in 1861, they had hoped it would reconcile the divergent interests exposed in debates over the sea wall. Drafted by the engineers Bernard and Perrier, it proposed the establishment of primary drainage canals emptying into the Vaccarés, the construction of agricultural roads and

⁴⁷ ADBR 10S 32 (32-33), Minister of Agriculture to prefect of Bouches-du-Rhône, 30 March 1887.

⁴⁸ Picon, *L'Espace et le temps en Camargue*, 95-98.

finally the creation of an artificial pumping system.⁴⁹ Though it received the blessing of the municipal councils of Arles and Saintes Maries-de-la-Mer, the plan fell under a barrage of petitions from landowners throughout the region that challenged not only its practicality but the very economic and environmental logic upon which it rested.⁵⁰

The crux of the issue was the fate of the extensive marshes that dominated much of the Camargue. For engineers, marshes were anathema to their vision of a rational and productive national territory. They embodied unredeemed nature, their sterility and insalubrity an affront to civilization and an obstacle to progress. If the Camargue were to become a productive component of the nation, its marshes had to be drained and transformed into pasture and cropland.

This productivist vision was tinged with hygienic and moral connotations. The recurring theme of circulation among engineers and technocrats in the nineteenth century reflected the close link between notions of environment, public health and social order. As Wolfgang Schivelbusch has noted “[W]hatever was part of circulation was regarded as healthy, progressive, constructive; all that was detached from circulation, on the other hand, appeared diseased, medieval, subversive, threatening.”⁵¹ This was as true for the marshlands of the Camargue as it was for cramped streets of Paris. Stagnant and insalubrious marshes needed to be drained to restore the health and productivity of the environment.

⁴⁹ AMA O173, Bernard and Perrier, “Digue à la mer en Camargue”, March 13 1861.

⁵⁰ ADBR 8S 2 (5), report of sous-préfet of Arles (1862); AMA D23, Deliberations of municipal council of Arles (1862)

Wolfgang Schivelbusch, *The railway journey : the industrialization of time and space in the 19th century* (Berkeley: University of California Press, 1987), 188-197.

“Water flow”, the engineer Alexandre Surell declared, “is the soul of all improvement schemes in the Camargue.”⁵²

Local property owners had a more complicated opinion of marshes. Most agreed that the saline lagoons and marshes of the lower Camargue posed a threat to public health and had little agricultural potential. According to an 1853 report presented at the Chamber of Agriculture in Arles, the decomposition of organic matter produced through heat and evaporation during the summer months made the entire region into a great “miasmatic laboratory.”⁵³

These saline marshes, however, had little in common with the freshwater marshes that occupied large sections of the upper and central Camargue. For many landowners, marshes were part of the cultivated landscape. Irrigated between September and June through small channels linked to the Rhône, they were drained over the summer to facilitate their harvest. These cultivated marshes or *roselières* offered a bounty of goods. Their most valuable resource were the abundant reeds that flourished in their nutrient-rich waters. Cut young and green reeds were invaluable sources of compost, fodder and mulch. Left to dry and yellow, they provided cheap materials for the construction and repair of fences, sheepfolds and cabins. Surrounding regions, particularly the vineyards in the neighboring department of the Gard, depended on their steady supply as cheaper alternatives to traditional fodder and fertilizer. Marshes had other uses as well. In the winter months, locals collected leeches and tortoises, valued for

⁵² Surell and Montricher, *Amélioration de la Camargue: Rapport des ingénieurs sur les travaux de la commission consultative* (Marseille: Imprimeur de la Préfecture, 1851), 6.

⁵³ ADBR 7M 35, report from the *Chambre d’Agriculture* of Arles (1853).

medical applications. In the spring and fall, they pastured sheep and other livestock along their edges.⁵⁴

Figure 5. Roselières in the neighboring department of the Gard



In addition to being more productive than engineers supposed, marshes were also less dangerous. Defenders of *roselières* dismissed their reputation as sources of unhealthy miasmas. Allowed to dry out during the summer months, they were not subject to the forces of decomposition and evaporation associated with the spread of disease. The rest of the year they were regularly fed fresh water and hence were not the stagnant bodies of water so feared by engineers.⁵⁵ If the Camargue seemed to suffer more from illness and disease than other

⁵⁴ Ibid.

⁵⁵ Ibid.

regions, absentee landowners reasoned it had more to do with poor hygiene than marshes. Though he did not elaborate, one absentee property owner declared that “[p]roper health instruction would be of far greater benefit than the gigantic projects of our engineers.”⁵⁶

Given the value of marshlands to the local economy, landowners were understandably skeptical of plans to drain them. In the eyes of many irate inhabitants, the Bernard-Perrier project was simply the latest in a long string of public reclamation schemes that sought to impose a flawed model of water management on the Camargue. According to the lawyer Gautier-Descottes, whose petition on behalf of the prominent landowning Mistral brothers was widely supported in the region, “no one doubts that the [Ponts-et-Chaussées] administration is animated by a strong and sincere desire to do good...And yet one suspects that it distrusts private interest as if it were the enemy.”⁵⁷ Ulysse Donzel, another prominent property owner and outspoken critic of state reclamation projects, echoed and amplified this sentiment. The belief that the drainage of marshlands was the key to a prosperous and productive Camargue reflected a “total ignorance of all the laws of nature in the Camargue...We should not be frightened by this term ‘marais’. It is rather to ‘marais’ that we will owe the future prosperity of the Camargue.”⁵⁸

In addition to what they considered to be a misguided emphasis on drainage, landowners regarded the costs of the project, estimated by engineers

⁵⁶ ADBR 8S 2 (5), petition of M. Causse, property owner in the Camargue and member of the Conseil Général of the Gard. (1861)

⁵⁷ ADBR 8S 2 (5), petition of M. Gautier-Descottes (1861)

⁵⁸ ADBR 8S 2 (5), petition of Ulysse Donzel (1862)

to be over two million francs, insupportable. The Bernard-Perrier project focused mainly on the major engineering works of canals and dikes, leaving actual agricultural improvements such as secondary irrigation and drainage canals, roads and eventually water pumps canals to private owners. The argument of engineers that such investments would be compensated by the high returns garnered from more intensive agriculture seemed ludicrous. That reclaimed lands would soar to over 1500 francs a hectare was, according to Donzel, pure fantasy, a “*fable agricole*” that failed to impress property owners familiar with the harshness and unpredictability of the Camargue.⁵⁹

Given the environmental and economic flaws of the project, landowners saw little justification in agreeing to the steep financial contributions expected of them. Already burdened by land taxes, the high cost of labor and contributions to irrigation, dike and drainage associations, property owners complained bitterly that they had precious little left over to fund large-scale reclamation projects. Further financial obligations, especially if they deprived landowners of the local resources of marshlands, would be nothing less than a “public calamity”.⁶⁰ In their staunch opposition to the Bernard-Perrier project, landowners effectively chose the certain returns of their present traditional practices to the uncertain, and in their minds wholly unrealistic, income promised by engineers.

The unanimity and tenor of criticism stunned the public commission established to review the Bernard-Perrier project. Packed with mayors, members of the *Conseil général* of the Bouches-du-Rhône and local notables, the

⁵⁹ Ulysse Donzel, *Coup d'oeil sur le dessèchement des marais de la Camargue*. (Nîmes: Imprimerie Roger et Laporte, 1862), 12.

⁶⁰ ADBR 8S 2 (5), petition of M. Causse (1861)

commission had expected broad approval. The president of the commission, Perrin de Jonquières, assured his colleagues that “it was clearly in the public interest of a great nation like France to not abandon a poor country [such as the Camargue] to its own devices.”⁶¹ A landowner himself in the Camargue, Jonquières sympathized with the local defense of marshlands but believed that tradition could not stand in the way of progress. Yet, faced with an intransigent opposition to the project, the commission resigned itself to a half-hearted conclusion. Exasperated by the lack of resources offered by the government and the refusal of local property owners to provide the necessary financial contributions, the commission lamely recommended that the government undertake all the works in a piecemeal fashion with no specifications for their financing. The prefecture condemned the failure of the commission, judging it crippled by a “unfortunate cowardice” and lack of vision. As the sub-prefect dryly noted, “[i]f it had wanted to truly bury the project, it could have found no better way than to say to the state, ‘You shoulder the cost.’”⁶²

The wide-spread rejection of the Bernard-Perrier plan cast in doubt the legitimacy, not just efficacy, of state intervention. Many of the local petitioners against the project feared that their basic rights to property were in danger. In its attempt to dictate drainage policies in the Camargue, the Bernard-Perrier plan had inadvertently roused bitter memories of earlier investment schemes by invoking the infamous 1807 law on marshes. The law had authorized the drainage of any marshland considered contrary to the public good, specifically

⁶¹ ADBR 8S 2 (5), report of sous-préfet of Arles (1862)

⁶² *ibid.*

those that disrupted transportation networks or endangered public health.⁶³ According to many of the petitioners, it was the same law that an earlier agricultural investment scheme, the *Canal Beaucaire* project, had employed to despoil local landowners of valuable marshland. When reclamation efforts failed, the company had decided to exploit the marshes themselves, an ironic reversal that outraged local landowners. The incident was repeatedly invoked as an example of how locals were “stripped of the major portion of their lands under the pretext of drainage.”⁶⁴ In a pamphlet published soon after the petitions of 1861, Ulysse Donzel attacked the law as “completely inapplicable to the agricultural improvement of the Camargue. Its application here would bring nothing but damage, despoilment and ruin.”⁶⁵ Since the *marais* of the Camargue bore little resemblance to the unproductive and insalubrious entities targeted by the 1807 law, there could be little question of the law’s application.

The defense of marshlands, however, went beyond local assertions of land use and property rights. In arguing that their preservation, rather than their drainage, was in the true public interest, the conservative landowning elite were engaging in their own efforts to lay claim to the Camargue. While it was true that marshes were an important economic resource, their main beneficiaries were not absentee landowners but the tenant farmers who worked their properties and demanded extensive use rights over them in their leases.⁶⁶ Should marshlands disappear in the name of some ill-conceived and expensive plan for agricultural

⁶³ Jean-Laurent Rosenthal, *The Fruits of Revolution: Property rights, litigation and French agriculture, 1700-1860*. (Cambridge: Cambridge University Press, 1992), 53-55

⁶⁴ AMA D23, Deliberations of municipal council of Arles (1862)

⁶⁵ Donzel, *Coup d'oeil sur le dessèchement des marais de la Camargue*, 14

⁶⁶ Allard, *Arles et ses terroirs*, 121.

improvement, landowners feared they would lose their precious labor force of tenants and with them their steady revenue from rents. By couching the defense of what was in essence private property rights in terms of a paternalistic collective good, landowners legitimized their own vision of the Camargue as a unspectacular but relatively safe source of revenue. In a sense, the defense of marshes served to authenticate claims of local belonging that most landowners had trouble making, given that few actually lived in the Camargue.

Conclusion

Ultimately, the French state did transform the environment in the Camargue, just not in the ways it had first hoped. In the aftermath of local petitions, the best engineers could muster were three drainage canals that emptied in the Vaccarés. Though not completed until 1880, their construction was a real achievement given the local resistance engineers had encountered at every turn. Yet even the canals ended up effecting changes that the state did not envision, becoming a major source of friction between agriculturalists in the north and saliniers in the south. With the arrival of viticulture in the Camargue, the politics of drainage changed. Following the devastation of the Midi vineyards by the phylloxéra epidemic in the 1860s large landowners and investors planted new vines in the Camargue where sandy soils and winter flooding provided a natural resistance to the parasite. To help desalinate their soils landowners turned to rice cultivation which demanded large amounts of irrigation in the summer months. For the industrial *saliniers* in the lower Camargue, the dramatic

increase in fresh water run-off into the Vaccarés, facilitated by the drainage canals, was a direct infringement on their property rights. As legal owners of the Vaccarés, saliniers claimed that it had the right to ban all “unnatural’ drainage”, meaning any water that was not the product of rain or natural flooding. A smoldering conflict ensued between agriculturalists and saliniers that lasted well into the twentieth century.⁶⁷ In 1906, the company *Alais Froges Camargue* (formerly *Henri Merle* and, later, *Péchiney*) finally won a suit against the agriculturalists at the civil tribunal in Tarascon in 1906. However, the tensions between the two groups would not be resolved- or least a durable truce would not be struck- until the creation of a nature reserve around the Vaccarés lake, another story of contested claims over the future of the Camargue that we will return to in Chapter Seven.

⁶⁷ Picon, *L'Espace et le temps en Camargue*, 95-98.

Chapter Five Repairing Mountains in Republican France

Introduction

In 1888, a Swiss engineer, Louis Gonin, set off from the port of Marseilles, following first the Rhone then the Durance rivers along the national route 100 before finally arriving in the valley of the Ubaye near the town of Barcelonnette in the Basses-Alpes. He had made the arduous trip to see for himself the French efforts of alpine restoration that had become something of a sensation among forestry and engineering circles abroad. Running through the arrondissement of Barcelonnette in the Basses-Alpes, the Ubaye was a major tributary of the Durance River and one of the most well-known sites of reforestation efforts in the nineteenth century. By 1888, over 100,000 square hectares of lands were under forestry management. Over seventy major dams and three thousand secondary walls, dikes and bank reinforcements had been built along the eight main torrents that fed into the Ubaye.¹

Gonin was not disappointed. The region juxtaposed visions of uncontrolled and mastered nature. At the mouth of a notoriously destructive torrent, the Riou-Bourdoux, Gonin described a scene of desolation and

¹ Louis Gonin, *Visite d'un ingénieur suisse aux travaux de reboisement des Alpes françaises dans la vallée de Barcelonnette* (Lausanne: Imprimerie Georges Bridel, 1890), 22.

destruction. From the bottom of the ravine, whose walls rose 200 meters, it seemed as if “one was before the entrance of the Styx.” It seemed to incarnate the “desolation and death of the mountain” that Auguste Blanqui had warned about two decades before. Yet upon arriving at the main reforestation perimeter around the Bourget torrent, Gonin felt a surge of hope and gratitude. There, the “mountain stood out in perfect clarity...There are first the large gorges of the torrents Bourget and its tributary the Rata, the principle dams, the secondary ‘ridges’ that block each, consisting of a series of rustic dams continuing all the way to the summit, the forestry plantations and nurseries and, finally, running horizontally across the flank of the mountain, rows of grafted shrubs and woody vegetation.”² In a few kilometers, Gonin had witnessed the transition from chaos to order, from unruly to rationalized nature.

Gonin was not alone in his appreciation of the restoration projects around Barcelonnette. The region had become something of a pilgrimage site for fellow reboiseurs and interested observers, both domestic and foreign. Eugène Viollet-le-Duc, famed for his work in architectural restoration and role in Gothic revival, was so taken by a presentation of alpine restoration efforts at the 1878 World Exposition that he planned to visit the region himself (a trip he never made, as he died the next year).³ Italian foresters from the Stura Valley in the Piedmont came

² Ibid., 11

³ Letter to Demontzey, 8 février 1879, reproduced in Demontzey, *Traité pratique*, xiv-xv.

to study the Riou Bourdoux dam and learn about French alpine restoration techniques.⁴

The overseer of this empire of reforestation was Prosper Demontzey (1831-1898). Known among his peers as the *grand reboiseur*, Demontzey had spent his early years in Algeria, first at Orléansville and later Algiers, where he undertook his first reforestation projects. Returning to France in 1863, he quickly set to work systematizing the techniques of reforestation in the southern Alps, first in the environs around Nice and later in the Basses-Alpes where he was *conservateur* from 1868 to 1877.⁵ His *Traité pratique*, first published in 1878 and dedicated to Surell, became the basic manual of reforesters and was largely drawn on his experiences there.⁶

In his quest to redeem the mountains of France, Demontzey embraced the same narrative of environmental degradation that had justified state intervention under the Second Empire: “When one travels through this region along the major roads and railways, one [is struck by] the ruin of a country once populated by important towns and numerous villages possessing vast fertile fields and protected by ample forests which once provided the ornament and the wealth of these mountains now barren. The desolation and depopulation that they suffer from would have turned the frontier of southeastern France into a veritable desert if the State had not finally decided to exorcise these evils.”⁷

⁴ Marcus Hall, “The restoration movement: changes and challenges in alpine Italy,” in *Rural Landscape between state and local communities in Europe*, eds. Paola Sereno and Maria Luisa Sturani (Alessandria : Edizioni dell’Orso, 1998), 233-4.

⁵ P. Carrière, “Prosper Demontzey,” *Révue des Eaux et Forêts* (1 April 1898).

⁶ Demontzey, *Traité pratique*, vii-viii.

⁷ Prosper Demontzey, *Le reboisement des montagnes et l’extinction des torrents* (Paris: Administration des Deux Revues, 1891), 8, 12.

Following the establishment of the Third Republic, reforestation became one tactic among many in the continuing campaign to unify and rationalize national territory begun under the Second Empire. More so than its predecessor, the Third Republic state sought to effect environmental change through consent. Republican legislators recognized that a successful policy of intervention along the alpine periphery could not afford to alienate local populations. Reforestation offered a regionally-tuned language of assimilation that linked the mountainous Midi to the nation through the concepts of risk and responsibility, two essential technologies of citizenship in the 'civilizing mission' of the French state. While alpine populations remained the prime agents of deforestation and its purported consequences of flooding and erosion, they also became seen as the instruments of environmental repair. If their ignorance, poverty and isolation had led them to subvert the public good through the disruption of a "natural equilibrium" between mountain and plain, then it stood to reason that education, economic assistance and social integration would transform them into agents of the public good through rational land management.

Demontzey was not alone in his mission to "save" the French mountains. Between the 1880s and the outbreak of World War One, new groups emerged to lay claim to the alpine landscape. New entities, such as the *Touring Club de France* and *Association de l'Aménagement des Montagnes*, adopted the cause in ways that did not always accord with official views. Throughout the late nineteenth and early twentieth centuries, state initiatives encountered a proliferation of alternate readings of the alpine landscape emerging from civil

society. At times overlapping, at times clashing, all these groups used the “problem” of deforestation to lay claim to alpine landscape.

From Imperial to Republican Mountains: The establishment of the RTM

The first law on alpine reforestation expired ten years after its passage, along with the Second Empire. During the 1870s, alpine reforestation slipped in and out of public debate. At the dawn of the Third Republic, the state of alpine forests seemed a distant and even overwrought concern. The humiliating defeat at Sedan by the Prussian army followed closely by the fury of urban revolutionaries in Paris and other major cities left the new Republic with a host of other ills to address. Yet the persistence of catastrophic flooding across the *Midi*, particularly in the Pyrenees, provided *reboiseurs* with fresh evidence of the imminent destruction of alpine society. The worst floods came in the summer of 1875, claiming over 500 lives along the Garonne basin. President Maréchal De Mac-Mahon visited the village of Verdun in the Haute-Ariège to pay tribute to the eighty-one inhabitants lost in the floods.⁸

Departments in the southern Alps that had receive the lion’s share of credits under the 1860 law were some of the few that lobbied for its renewal. The General Council of the Hautes-Alpes warned the government that “ruin would be

⁸ Jean-Paul Métaillé, “Le fleuve ravageur: risques, catastrophes et aménagement dans les Pyrénées et leur piémont, fin XlIe-XXe siècle,” in *Pour une histoire de l’environnement*, eds. Corinne Beck and Robert Delort (Paris: CNRS, 1993), 105-112; J. M. Antoine, “Catastrophes torrentielles et gestion du risque en Haute-Ariège,” in *Risques et aménagement dans les Pyrénées*, ed. J.-P. Métaillé (Toulouse: ISARD, 1993), 105-119.

rapid and certain if the work of the regeneration of mountains came to be neglected.”⁹ For Council members in the Basses-Alpes, the question of alpine regeneration was “ for the valleys of the department a question of being or not being.” After all, they were “without argument, one of the [departments] most desolated by torrent...”¹⁰ Their reputation as the classic *pays catastrophique*, a site of environmental degradation and disaster, had paid significant dividends that were now at risk of drying up.

After a number of false starts, a new law was finally passed on April 4 1882. It provided foresters with both a budget and a mandate to continue the work of alpine reforestation. Most significantly, the law restricted state intervention to areas where the risks posed by torrents and erosion were “ evident and present.” By requiring evidence of, rather than the potential for, torrential erosion, the law narrowed the conditions under which the state could legitimately intervene in local environments. It reduced the size and number of reforestation perimeters, further encouraged the regeneration of pasturage and expanded credits for engineering works. Declarations of public utility, once made by the imperial Conseil d’Etat, an appointed body, now had to be passed as laws by the elected Chamber of Deputies. Finally, it established a separate governing bureaucracy to undertake the vast work of “restoration”, known as the

⁹ Report of the Conseil général des Hautes-Alpes, 6 April 1872, reproduced in *Reboisement des montagnes. Compte rendu des travaux de 1869-1874* (Paris: Imprimerie nationale, 1876)

¹⁰ Report of the Conseil général des Basses-Alpes, 3 November 1871, reproduced in *Reboisement des montagnes*.

Restauration des terrains en montagne service or RTM, across seventeen departments in the mountains of the Midi.¹¹

For many contemporaries and later historians, the 1882 law represented a retreat from the authoritarian policies of the Second Empire. The coercive elements of imperial reforestation had little place in republican political culture.¹² According to Andrée Corvol, the politics of expropriation and coercion that supposedly marked early legislation became insupportable under Third Republic which owed much of its legitimacy, born out of military defeat and the urban upheavals of 1870, to its rural electors.¹³ Deputies could hardly be expected to sign off on coercive measures that many elected municipal councils in alpine constituencies actively fought against. In their review of the 1860 and 1864 laws, many legislators, eager to distance themselves from their imperial predecessors, criticized what they viewed as the “infallibility of reforestation”. Pushed by a Forestry Administration “in love with its craft and satisfied with its results”, the laws had overstretched the proper bounds of state authority and alienated local populations.¹⁴ The threat of imperial contamination was evident in the very wording of the 1882 law where the word *reboisement* did not make a single

¹¹ The RTM had bureaus in the departments of the Basses-Alpes, Hautes-Alpes, Alpes-Maritimes, Ardèche, Ariège, Aude, Drôme, Gard, Haute-Garonne, Hérault, Isère, Loire, Lozère, Haute-Pyrénées, Pyrénées-Orientales, Savoie and Haute-Savoie. *Les Eaux et Forêts du 12e au 20e siècle* (Paris: Editions CNRS, 1987), 577-578.

¹² Andrée Corvol, *L'Homme aux Bois*, 343-6; A. Brun et al., “Forestiers et paysans: les reboisements en montagne depuis l'Empire,” in *Tant qu'il y aura des arbres*, ed. M. Anselme (Paris: Recherches, 1981), 57-84; Pierre Chevallier and Marie-José Couailhac, *L'Administration des Eaux et Forêts dans le département de l'Isère au XIXe siècle*, 155.

¹³ Andrée Corvol, *L'Homme aux Bois*, 343-6

¹⁴ Quoted in Chevallier and Couailhac, *L'Administration des Eaux et Forêts dans le département de l'Isère*, 76

appearance, replaced with the more neutral if vague terms of *restauration* and *conservation*.¹⁵

Despite its Republican coloring, the new law was in many ways more ambitious than its Second Empire precursor. While it narrowed the scope of restoration to zones of “dangers nés et actuels”, it also made expropriation more effective through compulsory direct sale if communes or individuals could not or would not undertake works. An 1873 report of Forestry commission for the Alps concluded that the 1860 law had been too concerned with upsetting local society and had hence restricted expropriation to private landowners.¹⁶ Perhaps the greatest innovation of the new law, however, was not in the technicalities of expropriation but the deployment of a new set of practices designed to “adapt” restoration to local conditions. In assuming the role of tutor, the French state sought to manufacture consent for territorial ambitions that ultimately required the assent of local populations. The shift in terminology from reboisement to restauration was not merely semantic; it pointed to a more carefully calibrated policy of involving local populations in the project of alpine reform.

The new RTM service employed several tactics to adapt reforestation to the needs of local populations. First, the new law drastically reduced the number and size of reforestation perimeters. Perimeters shrank by half, from 140,000 to 70,000 hectares, while the number of perimeters declined from 219 to 177.¹⁷ It also stipulated that all lands be purchased prior to any improvement.

Expropriation had led to too many conflicts between locals and forestry agents,

¹⁵ Whited, *Forests and Peasant Politics*, 85.

¹⁶ *Reboisement des montagnes. Compte rendu des travaux de 1869-1874*, 12.

¹⁷ Frédéric Fesquet, “Un corps quasi-militaire,” 462.

due largely to the fact that most of the territory targeted for restoration consisted of communal pasturage.¹⁸ The state now had to first buy lands from alpine communities before embarking on restoration works. RTM foresters hoped that these “friendly” purchases, as they became known, would help reconcile reforestation with local society. And, to a degree, they were right. At an average price of 157 hectares per hectare, many land sales seemed to be a good deal for communes. Money from sales could go towards other investments, such as roads, schools or churches or, in the case of individual property owners, towards emigration.¹⁹

The reduction in perimeters and regulation of land sales was accompanied by a greater focus on hydrological interventions. In many ways, the RTM became known more for its elegant dams, dikes, and bank reinforcements than its trees. Between 1882 and 1909, the Forestry Administration had spent 18.5 million francs on “torrent correction” compared to 17.2 million francs on actual reforestation.²⁰ Along the torrent Bourget, which flowed into the Ubaye river 4 kilometers upstream of the town of Barcelonnette, only 62,000 of the total 262,000 francs spent on restoration by the late 1880s went towards reforestation.²¹

Demontzey was the great proponent of torrent control. For him, the “extinction” of torrents had a two-fold public utility: eradicating the threats posed to local society and regularizing water flow downstream through the prevention of seasonal floods and erosion. In lieu of the traditional flood prevention works

¹⁸ Demontzey, *Traité Pratique*, 44

¹⁹ Fesquet, “Un corps quasi-militaire,” 546.

²⁰ Centre des archives contemporaines (hereafter CAC) 771172 (56). Direction Générale des Eaux-et-Fôrets, “Situation au 1er janvier 1909 des perimeters de restauration.”

²¹ Gonin, *Visite d'un ingénieur suisse*, 22.

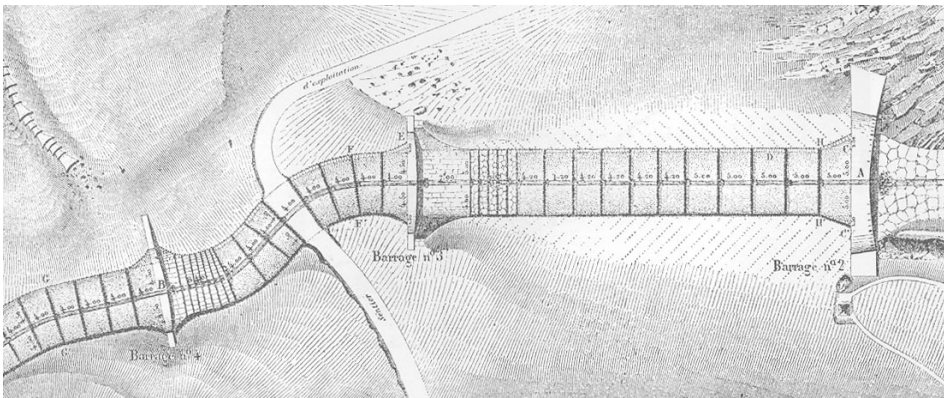
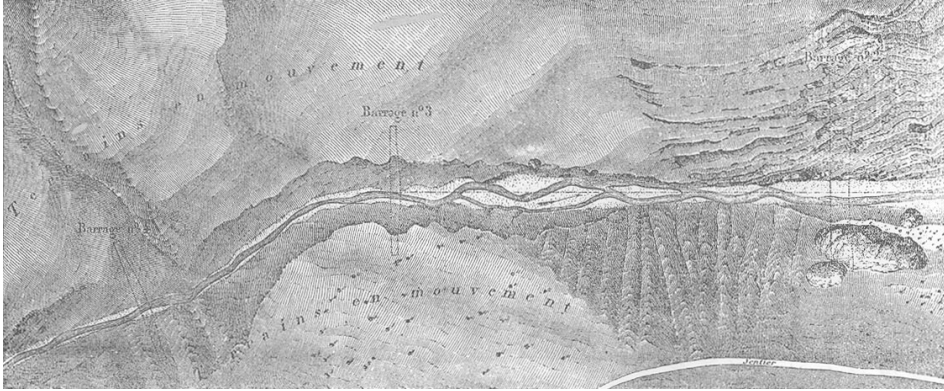
employed by *Ponts-et-Chaussées* engineers that consisted of single dams at the mouths of torrents, Prosper Demontzey recommended a more graduated system of smaller dams and secondary walls upstream at multiple locations, combined with embankments and ladders, designed to slow down torrents rather than stop them outright.

Designed to directly counter the force of floods and erosion, these modest engineering works also provided a relatively conflict-free field of state intervention. Local communities tended to be far less resistant to torrent control than reforestation, for the simple reason that pasturage restrictions were not involved. For villages directly threatened by seasonal torrents, RTM functioned as a risk manager, a role far less contentious than that of *reboiseur*, particularly in the highly-erosive and pastoral southern Alps.²² Yet they also served a pedagogical function as well. While the state could establish narrow perimeters around the most dangerous torrents, the extension of forest cover would ultimately require the voluntary efforts of communes and individuals. By demonstrating the principle of rational management, the state could tutor local populations in the proper use of their mountains.²³

²² A. Brun et al., "Forestiers et paysans," 69.

²³ Demontzey, *Le reboisement des montagnes*, 10.

Figure 6. Rationalizing the Bourget Torrent.



A renewed focus on the “correction of torrents” did not mean foresters had retreated from the true field of battle, communal pasturage. Under the new rubric of alpine restoration, the “amelioration” of pasturage had its place alongside reforestation and torrent correction. The first two decades of reforestation taught foresters that a direct attack on sheep pasturage amounted to an attack on local society itself. The 1882 law authorized foresters to regulate pasturage based on an “expert” assessment of the carrying capacity each section of a mountain could

sustain. The period of pasturage would be strictly regulated, as would the order in which each section of communal pasturage would be grazed.²⁴

The ultimate goal of foresters was the substitution of cows for sheep as the central resource in alpine economies. Not only would this eliminate the spring and fall pasturage of sheep on intermediary slopes, where deforestation and erosion were judged to be most evident, it would also enable the spread of cheese-making cooperatives or *fruitières*, an essential step towards integrating alpine regions into the market economy. Demontzey made it clear that alpine reforestation depended on the wholesale transformation of the alpine economy. If it were to join the crusade against deforestation, which threatened its very existence, alpine society would be forced shed its pastoral past. It had to be “based on work, not on the contemplative existence of shepherds.”²⁵ To better train foresters to deal with such issues, the *Ecole forestière* in Nancy began offering a course entitled “Economie montagnarde.” Among some of their more hard-line colleagues, RTM foresters gained a reputation for being more interested in cows and cheese than trees²⁶

While many foresters may have hoped for a complete dismantling of the communal system upon which extensive pasturage and subsistence agriculture rested, they had to settle for a lot less. The actual application of these regulations, which were instituted in 100 communes in the Alps region where the RTM had reforestation perimeters, was fitful at best. Little authority was given to

²⁴ Félix Briot, *Déposition faite devant la Commission des améliorations agricoles et forestières le 30 janvier 1897* (Paris: Imprimerie nationale, 1897), 1.

²⁵ Demontzey, *Traité*, 395

²⁶ Louis de Crécy, "L'histoire de la RTM," *Revue géographique des Pyrénées et du Sud-Ouest* 59 (1988), 23.

foresters to enforce regulations and, in the vast majority of cases, alpine communities merely ignored them. The commission established to settle disputes arising between communes and EF rarely met and when it did tended to side with village interests.²⁷ Outside certain villages in the Pyrenees, efforts to establish *fruitières* were largely ineffectual. In the arrondissement of Barcelonnette in the southern Alps, the sub-prefect remarked that cheese-making operations encountered stiff resistance from local women who saw their incomes from milk and butter threatened by the new cooperatives.²⁸

The RTM service, though it did seek to “adapt” itself to local society, largely functioned as a disciplinary institution of resource management. It sought to integrate the mountain into the market economy through a combination of risk management and agricultural reform. Its conciliatory tone was tempered by a paternalistic view of local alpine society that differed little from earlier legislation. Despite effort to include the interests of local society in the equation of restoration, foresters remained fundamentally skeptical of *montagnard* practices. To enlist alpine populations in the reforestation campaign meant educating them about the consequences of what were still considered irrational practices regarding their resources. As one forestry inspector in the Isère noted after the passage of the 1882 law, “[a]ll of the wise measures of this law will only be able have their full effect if the inhabitants of the mountains decide to renounce their ancient errors and understand that to facilitate the task of the Forestry Administration in the work of reforestation and regulation of pasturage is to work

²⁷ Félix Briot, *Déposition*, 1.

²⁸ L. Marchand, *Les torrents*, 145.

towards the improvement of their situation in the present and to assure the future of later generations.”²⁹ If the legal codes had changed, foresters on the ground maintained their jaundiced view of local practices.

Visualizing Catastrophe: The photographs of the RTM

At the 1878 World Exposition in Paris, the Forestry Administration held an elaborate display of its reforestation efforts in alpine France. Organized by Demontzey, it focused on the southern Alps and the Ubaye river valley near Barcelonnette. Images of denuded and eroded mountain slopes and washed-away villages accompanied maps and charts cataloging notable conditions like geology, hydrology, forest cover, population and agricultural production. Photographs and dioramas of the most well known torrents in the southern Alps, such as the Bourget, the Faucon and the Riou-Bourdoux, juxtaposed before and after perspectives, emphasizing the conquest of unruly and degraded nature by enlightened expertise.³⁰

The most striking features of this catalog of environmental ruin and repair were its photographs. At once catastrophic and heroic, they bore little resemblance to the classical and romantic representations of the mountain. Here, one found neither pastoral idyll or pristine and sublime nature but an epic struggle between ruin and regeneration. Alongside images of scarred and barren

²⁹ Quoted in Chevallier and Couailhac, *L'Administration des Eaux et Forêts dans le département de l'Isère*, 82.

³⁰ Prosper Demontzey, *Notice sur les cartes, dessins, modèles et ouvrage relatifs aux travaux du Service du Reboisement des montagnes dans le bassin de la Durance* (Paris: Imprimerie nationale, 1878); Eugène de Gayffier, *Reboisement et gazonnement des montagnes : photographies de travaux de consolidation et de reboisement* (Paris, 1877).

slopes were those depicting the patient work of restoration. Along the ravines and across the mountain slopes, tree plantations appeared in neat rows while dams and smaller walls made of stone, masonry and wattle decorated the ravines like so many steps ascending the mountain. Here and there uniformed figures stood out, leaning on a pickaxe or resting on a boulder. Dwarfed by their surroundings, they nonetheless struck a heroic pose, repairing ruined nature in the service of the nation.

After the establishment of the RTM service, photography became a key instrument in the documentation of alpine restoration.³¹ In an 1886 circular to RTM officials, Demontzey called for the establishment of a photographic “archive”.³² Later the same year, two foresters, Fabien Benardeau and Henri Labbé, published a short manual on the basics of alpine photography.³³ By 1888, many RTM foresters had been issued photographic equipment and attended training seminars in Paris or Nancy. While original plates remained in the department archives, copies were sent to the Direction of Forests and the Minister of Agriculture in Paris and to the *Ecole forestière* in Nancy where they were inventoried.³⁴

³¹ Luce Lebart, “La ‘restauration’ des montagnes Les photographies de l’Administration des forêts dans la seconde moitié du XIXe siècle”, *Etudes photographiques* 3 (Nov. 1997); Jean-Paul Métaillé, “Une vision de l’aménagement des montagnes au XIXème siècle: Les photographies de la RTM,” *Revue géographique des Pyrénées et du Sud-Ouest* 59 (1988): 35-51.

³² Prosper Demontzey, “Application de la photographie aux travaux de reboisement,” *Instruction n° 42* (1 August 1886), quoted in Lebart (1997), 86.

³³ Fabien Benardeau and Henri Labbé, *Notice sur le rôle et l’emploi de la photographie dans le service du reboisement* (Paris: Octave Doin, 1886).

³⁴ Métaillé, “Une vision de l’aménagement des montagnes,” 35-51; Isabelle Richefort, “Les archives photographiques des services de restauration des terrains en montagne,” *Revue géographique des Pyrénées et du Sud-Ouest* 59 (1988): 53-57.

The circulation of photographs within both administrative circles and the broader scientific and popular realm helped shape the public perceptions of these distant corners of the nation.³⁵ The 1882 law had made it incumbent on foresters to demonstrate the immediate threat of deforestation. By meticulously documenting the state of degradation on alpine slopes and its risk to local society, RTM foresters provided “scientific” evidence for their cause. As Demontzey wrote in 1892, “[i]f we have adopted photography as the preferred means of representing torrents and the work we have executed on them, it is because of the irrefutable authenticity...of the images obtained by it.”³⁶

Figure 7. Eroded slopes around Barcelonnette



³⁵ The spread of these photographs is reflected in the variety of institutions that now preserve them. Aside from the bureaucratic sites of state archives, RTM photographs can also be found in municipal libraries, natural history museums and geographical societies. J.P. Métaillé, “Photographie et histoire du paysage: un exemple dans les Pyrénées luchonnaises,” *Revue géographique des Pyrénées et du Sud-Ouest* 57 (1986), 185.

³⁶ Prosper Demontzey, *L'extinction des torrents*, 1-2.

These claims of the “authenticity” of RTM photography, however, mask the degree to which it constructed, as much as represented, alpine landscapes. Foresters composed their photographs according to principles quite different from those espoused by more artistic approaches.³⁷ According to one manual on alpine photography of the era, the aspiring photographer should avoid any evidence of disruption or disequilibrium, such as a crumbling hut or raging torrent, but rather aspire to capture the sublime qualities of alpine landscapes through careful composition based on the ideals of unity and harmony.³⁸ In his circular of 1886, Demontzey suggested foresters to eschew these classical representations of the mountains in favor of scenes of environmental degradation. In composing their images, Demontzey instructed them to choose “perspectives that establish in convincing manner the public utility of [alpine restoration]... [such as] homes destroyed by landslides, hamlets and villages threatened by torrents, washed out national routes, railroad tracks buried by sediment deposits, obstructed tunnels and collapsing river banks.”³⁹ Foresters were also encouraged to take multiple shots of the same sites in order to provide a visual narrative of improvement. In his study of photographs taken around the valley of Montauban de Luchon in the Pyrenees, Métaillé notes how RTM photographers focused on the intermediate slopes and lower valleys in order to

³⁷ For accounts of the evolution of alpine photography, see Françoise Guichon ed., *Montagne. Photographies de 1845 à 1914*, (Paris: Denoël, 1984) and Philippe Joutard, *L’Invention du Mont-Blanc* (Paris: Gallimard, 1986).

³⁸ Antoine Mazel, *La photographie artistique en montagne* (Paris: Charles Mendel, 1890), 55.

³⁹ Prosper Demontzey, “Application de la photographie aux travaux de reboisement,” in Lebart, 88.

emphasize the effects of erosion and deforestation, rather than the high peaks that featured prominently in picturesque postcards and tourist guides.⁴⁰

In effect, the RTM produced the very catastrophic landscapes that justified their intervention into alpine society. By focusing exclusively on deforested and eroded slopes, which were real enough in many parts of alpine France, foresters condensed the mountain into a site of environmental degradation and theater of state intervention.

Figure 8. Restoration works on Bourget torrent



⁴⁰ J.P. Métaillé, "Photographie et histoire du paysage," 200.

Tourists Among the Trees: Alpine restoration and the conservation movement

The development of RTM photography signaled a more concerted effort of the Forestry service to expand public awareness of its reforestation campaign. Subjected to increased scrutiny from the Republican legislature following the passage of the 1882 law, the Forestry Administration reached out to various associations interested in the state of alpine environments, what the French sociologist Bernard Kalaora describes as an “operation of seduction”.⁴¹ Yet foresters quickly discovered that the project of alpine restoration could be appropriated in ways that they did not always approve, even within their own ranks. Outside official channels, it became wedded to regionalist concerns over the reach and influence of the French state and incorporated into a growing touristic and conservationist vision of rural France. At the same time, the Forestry Administration itself became the target of criticism from within its own ranks, as some foresters began to contest some of the basic premises of alpine restoration.

The various strands of nature conservation in France are typically traced back to the intersection of Romanticism, the expansion of the leisure classes and the growing specter of urban and industrial disorder. Efforts to protect the old royal Forest of Fontainbleau by a mix of artists, middle class reformers and Paris day trippers in the 1850s and 1860s is one of the conventional landmarks in

⁴¹ B. Kalaora and D. Poupardin, *Le corps forestier dans tous ses états* (Rungis: I.N.R.A., 1984), 39.

history of conservationism.⁴² Often overlooked in standard accounts is the influence of notions of environmental degradation emerging from the alpine periphery.⁴³

By the end of the nineteenth century, thanks in part to the circulation of RTM photographs, the problem of alpine deforestation had spread to spread to scientific circles and civic associations interested in amending alpine France in the interests of commerce, industry and tourism. These largely urban and middle class groups did little to challenge the fundamental premise that environmental degradation stemmed from the abusive practices of local pastoral society. Geographical societies, flourishing since the expansion of the colonial empire under the Third Republic, were instrumental in disseminating fears of alpine deforestation to the larger public.⁴⁴ Charles Rabot, editor of *La Géographie*, the monthly publication of the *Société de Géographie de Paris*, painted a grim portrait of alpine France for a readership accustomed to reports and studies from much further afield. The specter of deforestation, he warned, was creeping

⁴² See Nicolas Green, *The Spectacle of Nature: landscape and bourgeois culture in nineteenth-century France* (Manchester: Manchester University Press, 1990) and Anne Cadoret, ed., *Protection de la nature, histoire et idéologie* (Paris: l'Harmattan, 1978); Bernard Kalaora, *Le Musée Vert: Naissance et développement d'un loisir urbain, le cas de la forêt de Fontainebleau* (Paris: Editions Anthropos, 1981); J.-C. Polton, *Tourisme et nature au XIXe siècle: Guides et itinéraires de la forêt de Fontainebleau* (Paris: CTHS, 1994)

⁴³ Yves Luginbuhl, *Paysages. Textes et représentations du siècle des Lumières à nos jours* (Lyon: La Manufacture, 1989), 186. Caroline Ford has recently demonstrated how fears of deforestation in the colonies, specifically Algeria, also played a role in the development of conservationist discourse. See Caroline Ford, "Nature, Culture and Conservation in France and her colonies, 1840-1940," *Past and Present* 183 (2004): 173-198. French efforts at alpine restoration also significantly shaped the thinking of early conservationists in the United States. George Perkins Marsh, whose *Man and Nature* is considered one of the founding texts of American conservationism, was deeply influenced by narratives of environmental degradation in the French Alps. See Karl Jacoby, *Crimes against Nature: Squatters, Poachers, Thieves and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001), 15.

⁴⁴ Jean-Paul Métaillé, "De la géographie des forestiers à la géographie contre les forestiers: la diffusion et l'extinction du concept de dégradation des montagnes, à la fin du XIXe et au début du XX siècle," in *Autour de Vidal de la Blache: La formation de l'Ecole française de géographie*, ed. Paul Claval (Paris: CNRS Editions, 1993), 101-108.

inexorably across the nation: “When the last tree has fallen under the pitiless axe, when the sheep, this *phylloxéra* of pasturage, has devoured to its roots the last blade of grass, life will ebb from this immense body, silence will hang over its vast solitudes [and] the mountain will be dead!”⁴⁵

The intersection of conservation and alpine restoration was most evident in the activities of the *Touring-Club de France*. Established in 1890, the TCF aggressively promoted the development of French tourism by lobbying for greater public investments in infrastructure and publicity. Working alongside local tourist offices, railroad companies, hotel owners and other interested associations like alpine and automobile clubs, the TCF was instrumental in opening rural France, *la France profonde*, to middle-class consumers. The careful cultivation and marketing of regional heritage or *patrimoine*, from landscape and architecture to costumes and food, became one of its central missions.⁴⁶

Landscape preservation quickly rose to the top of TCF concerns. The advance of industry, while facilitating travel and leisure, also threatened many of the natural sites that urban-weary tourists were increasingly attracted to. The state of French forests was of central concern for TCF members. In 1906 the TCF published a *Manuel de l'Abre* and distributed it to schools and institutions throughout France. Written by the forester Emile Cardot, it was intended to

⁴⁵ Charles Rabot, “La dégradation des Pyrénées et l'influence de la forêt sur le régime des cours d'eau,” *La Géographie* 16 (1907), 163-170.

⁴⁶ For more on the TCF and its influence on changing perceptions of rural France, see Patrick Young, “La Vieille France as Object of Bourgeois Desire: The Touring Club de France and the French regions, 1890-1918,” in *Histories of Leisure: Leisure, Consumption and Culture*, ed. Rudy Koshar (New York: Berg, 2002), 169-170.

educate young citizens about the importance of forests, particularly alpine forests, to the nation. Cardot hoped to “inspire in them the love for the tree” by fostering “ a sort of fraternity between the forests and our population.”⁴⁷ Forest conservation was depicted as a supremely republican goal since it entailed the rational management of natural resources for the public good. “Each tree branch broken”, Cardot admonished his young readers, “is like a stone removed from the communal home that shelters humanity.”⁴⁸

Nothing better illustrated the consequences of reckless destruction of the nation’s natural resources than the problem of alpine deforestation. Cardot’s *Manuel* pointed to the rash of destructive floods along the nation’s major river basins to the “ruin of the mountains”. The great floods along the Garonne River in 1875 were held up as an example of the dire threats deforestation posed to the nation. Images of deforested mountains and flooded villages, most of them RTM photographs, produced an arresting visual narrative of environmental catastrophe that threatened the integrity, productivity and beauty of French territory. Future president of the TCF, Leon Auscher, argued forcefully for the importance of alpine forests, particularly those surrounding bathing and skiing resorts, to the emerging tourist industry:

Entire departments, such as the Basses-Alpes, the Var, the Hautes-Alpes, present to the gaze of the traveler nothing but deserted and barren mountains whose furrowed slopes threaten roads with their incessant rock slides...Reforestation, all the world knows, would return wealth to these

⁴⁷ Emile Cardot, *L'Arbre, la forêt et les pâturages de montagne. Manuel de l'arbre pour l'enseignement sylvo-pastoral dans les écoles* (Paris: Touring-Club de France, 1907), 5-6.

⁴⁸ *Ibid.*, 11.

deprived regions and restore their natural beauty, once destroyed by man.⁴⁹

Already in its eighth edition by 1908, the popularity of the *Manuel* attests to the collaboration between the TCF and Forestry Administration in popularizing alpine restoration.⁵⁰

Yet promotion of alpine restoration by the TCF and other interested groups like the CAF and SPPF was undercut at times by its preservationist attitudes towards nature. Particularly in state-owned forests in the lowlands, where clear-cutting and timbering were part of forestry management, tourist groups howled at the rampant destruction of trees. At an annual meeting of the *Fédération des Syndicats d'Initiative* in 1911, M. Guénot bitterly complained of clear-cutting in a state forest near the city of Toulouse: “[Foresters] decided, despite our protests... to cut everything down, old as well as young; it was a veritable massacre of innocents.”⁵¹ Guénot invoked a typical opposition between aesthetic appreciation and utilitarian exploitation and suggested that it was the beautification of the countryside, not its rationalization, that constituted the true “civilizing mission.”⁵²

State foresters, while they applauded the efforts of the TCF, were ambivalent about the preservationist discourse it imported into the debate that emphasized the aesthetic rather than social and economic values of forests. The

⁴⁹ Léon Auscher, *Des moyens propres à développer le tourisme en France. Du rôle que doit jouer l'Office National de Tourisme* (s.d.)

⁵⁰ Andrée Corvol, “Les Sociétés scolaires forestières, politique et pédagogie,” in *Enseigner et Apprendre la Forêt, XIXe-XXe siècles*, eds. Andrée Corvol and Christian Dugas (Paris: Editions L'Harmattan, 1992), 95-96.

⁵¹ S. Guénot, *Allocutions prononcées au IIIe Congrès International de la Fédération des Syndicats d'Initiative* (Toulouse: Imprimerie ouvrière, 1911), 16

⁵² *ibid.*, 19

conservateur G. Géneau, at an international forestry conference in 1913, warned against the misguided notion of the “virgin forest” where any intervention was viewed as an attack on pristine nature: “The partisans of this doctrine profess that any exploitation leads to the destruction of the beauty of the forest, that one must leave nature to its own devices, that, in a word, its ideal state is one of virgin woods.” This “absurd logic”, he argued, foundered on a romantic equation of beauty and pristine nature which foresters never succumbed to: “Beauty is nothing without health and the abandoned forest is a forest that suffers and wastes away; it is a society over-flowing with the lame and the infirm, a city where the elite is oppressed by the masses, where the living are suffocated by the dead...[I]t is the harmonization of the forest with its surrounding from which true beauty is born.”⁵³

The AAM: Rethinking alpine restoration in the Pyrenees

Notorious for its bitter battles between foresters and local inhabitants earlier in the century and less prone to erosion than the drier limestone slopes of the southern Alps, the Pyrenees stymied many of the alpine restoration projects initiated there. By 1909, the RTM service had reforested just over 10,000 hectares there, compared to almost 100,000 hectares in the Alps. Even more

⁵³ G. Géneau, “L’éducation forestière du public,” in *Congrès forestier international* (Paris, 1913), 731-2.

telling, the region accounted for a mere eight percent of the total RTM budget, compared to the seventy-five percent spent on the Alps.⁵⁴

Despite its less visible presence in RTM policy, the Pyrenees became the focal point for an alternative vision of alpine restoration promoted by concerned citizens and “renegade” foresters. Since the catastrophic floods of 1875 along the Garonne river basin (which, incidentally, had spurred the creation of the RTM), commercial and industrial leaders had fretted over the state of waterways in the region. In 1901, they established the *Société du Sud-Ouest Navigable* to address the problems of flooding and siltation and to lobby for greater credits from the national budget, credits that the government so far had been reluctant to give.⁵⁵ Convinced that the degradation in lowland river transport was linked to deforestation in the mountains, members of the *Société* helped establish the *Association Central pour l'Aménagement des Montagnes* or AAM in 1904.

At the association's first conference in 1907, its president and founding member of the *Société du Sud-Ouest*, Paul Descombes, declared the Pyrenees in a state of crisis. Amidst rampant deforestation and erosion, the region had lost a quarter of its population and half its livestock. Flooding and avalanches continued at an alarming rate, as the examples at Ouzous and Barèges in the central Pyrenees sadly illustrated.⁵⁶ This “disordering” of the mountain also posed a serious threat to the economy of the Southwest. For years, engineers

⁵⁴ CAC 771172 (56), Direction Générale des Eaux et Forêts, “Situation au 1er janvier 1909 des perimeters de restauration”

⁵⁵ Anon., “French Hydrology”, *The Geographical Journal* 21 5 (1903), 535-536.

⁵⁶ Paul Descombes, preface, *Premier congrès international de l'Aménagement des Montagnes* (Bordeaux: Feret, 1909), 3; Descombes, *L'Aménagement des Montagnes et le Reboisement* (Bordeaux, 1912)

had attributed the accumulation of sediment in estuaries, ports and river mouths to excessive erosion and deforestation in the mountains. This excess siltation reduced the flow and depth of waters just as the size and tonnage of ships was increasing with the growth in maritime commerce. “It is precisely at the moment when navigation vigorously demands the deepening of its ports that the mountain seems bent on filling them in,” Descombes warned.⁵⁷ The only solution, he concluded, was a methodical program of alpine restoration that involved not just reforestation but, especially important for the Pyrenees, the regeneration of alpine pasturage. The AAM would lead the “crusade against the vengeance of the mountains, as menacing for maritime ports as for the alpine valleys.”⁵⁸

On the one hand, the AAM did not stray far from orthodox forestry policy in their identification of the root of this growing environmental and social “crisis”. The perpetrator of alpine ruin was *montagnard* society itself. Isolated and impoverished, alpine communities recklessly destroyed their alpine environment through deforestation and over-pasturage. They were ignorant of the downstream consequences of their practices and apathetic towards their own vulnerability to flooding and avalanches. As one member decried at the second annual conference of the AAM held in Pau in 1906, “[t]he montagnards do not want to understand these grand ideas of public utility...[T]he only improvements

⁵⁷ Paul Descombes, “Si vous voulez de l’eau, faites des bois: Les ports maritimes et l’aménagement des montagnes,” in *Premier congrès international de l’Aménagement des Montagnes*, 377-380.

⁵⁸ *Ibid.*, 380

they seek are the expansion of pasturage for their flocks, which leads to the ruin of the forest.”⁵⁹

Where the association and the Forestry Service differed was over the role of pastoral reform in alpine restoration. For Descombes and his colleagues, overgrazing was the key to alpine degradation, a “stimulant for ruinous practices, a dissolvent of prudent customs [which] lead fatally to the squandering of natural riches...”⁶⁰ The RTM’s modest attempts at pastoral regulation were, in Descombes eyes, little more than window-dressing. By ignoring the task of improving the pastoral economies that so many alpine groups depended on, RTM foresters had alienated local inhabitants rather than enlist them in the project of regeneration.⁶¹

For Descombes, the efforts of the AAM boiled down to one objective: to “make the tree popular.”⁶² The key to alpine restoration, Descombes believed, lay not in heavy-handed reforestation policies that merely antagonized local pastoral society but in regionally-tuned projects of education that sought to demonstrate the “solidarity” of upland and lowland interests.⁶³ To this end, the AAM initiated a program to ‘educate’ *montagnards* in the rational exploitation of their environments by showing them how reformed and regulated pasturage could exist alongside forests. Its primary goal was the reduction in summer transhumance, when villages leased their communal pasturage to foreign

⁵⁹ *Premier congrès international de l'Aménagement des Montagnes*, 85.

⁶⁰ Paul Descombes, *L'Aménagement des Montagnes*, 1910

⁶¹ Whited, *Forests and peasant politics*, 191-193.

⁶² Paul Descombes, preface, *Premier congrès international de l'Aménagement des Montagnes*, 4-5.

⁶³ Paul Descombes, *Le problème pastoral et forestier. Note pour la Commission extraparlamentaire* (Bordeaux: Imprimerie Nouvelle F. Pech & Co., 1908), 5.

lowland interests. By renting portions of degraded pasturage from local villages and allowing the land to “recover” over a period of years, the AAM hoped to provide “leçons de choses” for inhabitants. Soon after its establishment in 1904, the group leased 2000 hectares of “degraded” communal pasture in the Neste valley in the Hautes-Pyrenees “overrun” with Spanish transhumants. After the first year, Descombes proudly announced the removal of 3,000 transhumants and 800 communal sheep from the leased pasture.⁶⁴ Between 1904 and the outbreak of war in 1914 the AAM, in cooperation with its sister organization, the ADAM, rented communal pasturage throughout the Pyrenees and Alps. Descombes claimed the efforts of the organization a success, reducing the dependence on transhumant pasturage and teaching local inhabitants the basics of good stewardship and rational resource management.

The pedagogical mission of the AAM extended to urban populations as well. The problem of alpine degradation could only be resolved through the education of both *montagnards* and distant urban dwellers. The AAM sought to “profoundly modif[y] public opinion” among urban populations with their conferences, publications and collaboration with other groups such as the Touring Club de France and the Club Alpin to organize “Fêtes de l’arbre”. French society, Descombes claimed, had begun to see the importance of “developing the mountains for alpine communities and with alpine communities.”⁶⁵ “[T]he initiatives [of the AAM] should be encouraged not only by economists but also by

⁶⁴ Paul Descombes, “La Défense des Montagnes,” *L’Echo de Paris*, 29 August 1904.

⁶⁵ Descombes, *Aménagement des Montagne*, 4-5.

tourists and spa bathers because the mountain, peeled and denuded, loses its picturesque [quality] just as it does its value.”⁶⁶

Underlying much of the AAM’s efforts to improve local pasturage in the Pyrenees was a deep-seated concern over the problem of alpine depopulation. Like its soils and waters, the people of the mountain were on the move, migrating to lowland towns and cities, swelling the ranks of the urban poor. While the anxiety over a depopulated countryside was shared by many political and social conservative elites towards the end of the nineteenth and early twentieth centuries, it was magnified in alpine regions when it became wed to fears of deforestation.⁶⁷ Descombes believed deforestation and over-grazing to be the main cause of depopulation in the Pyrenees. In the face of catastrophic floods that destroyed homes and agricultural lands and a sharp decrease in the availability of wood fuel, he argued, families were forced to emigrate to lowland towns and cities.⁶⁸ Like deforestation, alpine depopulation had to be avoided at all costs, as it endangered both the political economy and social order of the lowlands: “All cities and all departments are equally interested in maintaining the mountains’ land and population, if only to reduce the exodus of highlanders, the inevitable consequences of which include their accumulation in cities, the saturation of the work sites, the plethora of hospitals and the added burden upon public assistance. The unleashed vengeance of the mountain shows that all

⁶⁶ Decombes, “A La Défense de la Montagne,” *Journal des Débats*, 29 August 1904.

⁶⁷ J. Pitié, *L’Homme et son espace: L’Exode rural en France du XVIe siècle à nos jours* (Paris: Editions du C.N.R.S., 1987), 2.

⁶⁸ Paul Descombes, “L’influence du déboisement sur la désertion des campagnes,” *Le Musée Social* 8 (1912): 287-292. See also De Saily, “La Lutte contre la désertion des montagnes”, *La Reforme Sociale* (Jan-June 1910): 68-75.

general and particular interests must unite to check the ruin of the plains and unconscious suicide of the highlanders.”⁶⁹

The depopulation discourse adopted by the AAM reflected the influence of Frédéric Le Play and the conservative strain of social reform promoted by the organization he founded in 1856, the *Société des études pratiques d'économie sociale*. For Le Play (1806-1882), who came of age during the turbulent years after Revolution of 1830, rural depopulation was a symptom of moral decay sparked by the French Revolution.⁷⁰ The egalitarian reforms that emerged after 1789, Le Play argued, had undermined the traditional institutions of family and property that served as checks against the egoism, irreligion and greed inherent in human nature. He was particularly critical of the inheritance laws established by the Civil Code of 1804 that required the equal division of lands among siblings. These new regulations on the transmission of property crippled French society by leading parents to reduce their number of children in an effort to avoid the infinite subdivision of their lands. In these weakened families, parental authority waned and with it the basis for true morality.⁷¹

Though Le Play himself focused on dropping birth rates, many of his followers began to associate depopulation with disruptive effects of alpine degradation. The metaphor of erosion was in prominent use at a conference

⁶⁹ Paul Descombes, *La question forestière et pastorale* (Foix: Typographie et lithographie Veuve Pomiès, 1907), 12.

⁷⁰ Joseph Spengler, *France Faces Depopulation* (Durham: Duke University Press, 1938), 146-156.

⁷¹ *Ibid.* For more on the significance of Le Play and his disciples to nineteenth century social thought, see Bernard Kalaora and Antoine Savoye, *Les inventeurs oubliés: Le Play et ses continuateurs aux origines des sciences sociale* (Seyssel : Champ Vallon, 1989) and Antoine Savoye and Frédéric Audren, eds., *Frédéric LePlay et ses élèves: Naissance de la Ingénieur Sociale* (Paris: Presses de l'École des mines de Paris, 2008).

hosted by the *Société d'économie sociale* in 1909 devoted to the question of the “desertion of the countryside”. In his opening speech, the president of the *Société*, E. Cheysson, denounced rural depopulation as a scourge of the nation, associating it with the “violence of torrential erosion”, stripping the land of its vitality, uprooting inhabitants and sweeping them towards the swelling urban centers, “like deforested land at the mercy of erosion”, where they became vulnerable to radicalization.⁷²

Black Sheep: “Social” foresters and the AAM

The Le Playsien current that ran through the AAM led, surprising, to the Forestry Administration itself and a handful of “renegade” foresters also disgruntled with official projects of alpine restoration. Lucien-Albert Fabre and Pierre Buffault were among the most outspoken critics of the RTM service.⁷³ Main-stream foresters, they believed, were afflicted with a myopic vision of the mountain as an abstract resource rather than an inhabited landscape where social relations and nature intertwined.⁷⁴

Tree-planting, expropriation of communal lands and desultory efforts to regulate pasturage were not enough to turn the tide of alpine degradation. Foresters, they argued, had to concern themselves with the entire agro-pastoral

⁷² *La désertion des campagnes. Actes et discours principaux* (Paris, 1909), 2, 41.

⁷³ Bernard Kalaora and Antoine Savoye, *La Forêt pacifiée*, 17-18.

⁷⁴ B. Kalaora and A. Savoye, “Amenagement et menagement: le cas de la politique forestiere au XIXe siècle,” in *La Forêt*, ed. Andrée Corvol (Paris, 1991), 307-328.

regime if they hoped to stem the “double exodus” of soil and people.⁷⁵ Through careful documentation at reforestation perimeters, foresters could become acute observers of local society rather than merely agents of a distant and often uninformed state. The recognition that the success of social reform rested on knowledge of local conditions echoed the broad project advocated by the Société d'économie sociale and its journal, to which all three were contributors. As Fabre wrote in 1914, “grave mistakes recognized today could have been avoided if, since the advent of the RTM, the establishment of perimeters...had been preceded by the kinds of research inspired by the Ecole de Le Play...”⁷⁶

Fabre was by far the most vocal supporter of the AAM in the Forestry Service. Active in both the Pyrenees and Alps, Fabre was a close friend of Descombes and had given the AAM a ringing endorsement in 1904, claiming it was inspired by only the “highest and most disinterested sentiments” that served both the public good and the interests of local populations.⁷⁷ For Fabre, as for Descombes, the problems of alpine degradation and depopulation were inseparable. Not only was restoration impossible without the voluntary assistance of local inhabitants, it was pointless if the regions became uninhabited:

“Montagnards alone must be the hands of the State, artisans of alpine restoration [yet] their present exodus renders this restoration insolvable.”⁷⁸ The French state

⁷⁵ L.A. Fabre, *La question agraire dans les montagnes françaises* (Lyon: Imprimerie P. Legendre & Co., 1914), 19-20.

⁷⁶ L.A. Fabre, *La question agraire dans les montagnes françaises* (Lyon, Imprimerie P. Legendre & Co.: 1914), 20. For more on the influence of Le Play on Fabre and other so-called “social” foresters, see Bernard Kalaora and Antoine Savoye, *La Forêt pacifiée*.

⁷⁷ L.A. Fabre, “L'Association pour l'Amenagement des Montagnes dans les Pyrénées,” *Revue des Eaux et Forêts* (1 August 1904).

⁷⁸ L.A. Fabre, “La fuite des populations pastorales françaises,” *La Reforme Sociale* (16 December 1909)

seemed intent on displacing these populations elsewhere. Indeed, he claimed they were actively undermining efforts of restoration by forcing *montagnards* into emigrating to the lowlands and beyond. Fabre railed against what he claimed was an unabashed relocation program that recruited *montagnard* families for emigration to Algeria in an effort to both facilitate reforestation and strengthen the French electorate in the colony.⁷⁹ For Fabre, this misguided policy was merely adding to the problem of alpine degradation by accelerating depopulation.⁸⁰ Why must the state embroil itself in the perils of foreign colonization when it has “six million hectares of poor land to colonize in the [French] mountains?” With their hydroelectric potential, fertility rates and intensive husbandry, these regions represented “the finest colonies in the world.”⁸¹

While Fabre criticized the program of alpine restoration for its displacement of alpine populations, Pierre Buffault took the Forestry Service for retreating from what he saw as its main task in the mountains, the “regularization” of waterways. Like Fabre, Buffault was trained at the *Ecole forestière* in Nancy and had a brief stint as an RTM inspector at Barcelonnette before becoming a conservator in Aurillac.⁸² A founding member of the AAM, he was an outspoken critic of reforestation projects. Since the law of 1882, Buffault argued, alpine restoration had narrowed to essentially the “correction” of torrents

⁷⁹ Fabre gives the examples of Mariaud and Bédéjun, two communes in the Basses-Alpes, where, in 1905, a large number of families were relocated to Algeria. L.A. Fabre, *L'Etat et la dépopulation montagnaise en France* (Paris: V.Giard et E. Brière, 1909).

⁸⁰ Fabre's criticism of colonialism as a drain on national, specifically alpine, economy went against the grain of dominant Leplaysien thought which, following Le Play himself, supported colonial emigration as a stimulant to natality and industry. Spengler, *France Faces Depopulation*, 183-4.

⁸¹ L.A. Fabre, *L'Etat et la dépopulation*, 12

⁸² Whited, *Forests and Peasant Politics*, 58.

in areas where environmental degradation was already established, primarily in the southern Alps. The concept of 'correction' of individual headwaters torrents and streams worked better in highly-erosive southern Alps, which he noted had largely served as the model for the 1882 legislation. The piecemeal purchasing of communal pasturage along torrent perimeters added little to aggregate forest cover but managed to further alienate local users. Most importantly, it had prevented any long-term effects on water flow. The notion of "correction" was merely a temporary palliative to repair past ruin; "regularization", on the other hand, looked to the prevention of future disasters.⁸³

Like their AAM colleagues, these "social" foresters had an ambivalent view of alpine society. They were afflicted with the same double vision that had conditioned attitudes towards alpine regions throughout much of the 19th century. On the one hand, *montagnards* were, in Fabre's words, the "hands of the state."⁸⁴ Without them, alpine restoration had neither means nor ends. On the other hand, they did not mask their scorn for communal pasturage. "The cultural and economic conceptions of the alpine shepherd," Fabre wrote in 1909, "are hardly above the instincts of his animals."⁸⁵ For Buffault, the *montagnards* of the Midi remained outsiders to civilization, to the nation, and even to the French "race": "[I]n our three great alpine regions, the Alps, the Cévennes and the Pyrenees, we must deal with populations whose apathy and more than southern, quasi-Arab,

⁸³ Pierre Buffault, "Pour la houille blanche et les forêts," *Revue des Eaux et Forêts* 45 (1906), 103.

⁸⁴ Fabre, *La question agraire dans les montagnes françaises*, 19-20.

⁸⁵ Fabre, *L'Etat et la dépopulation*, 3

carelessness, [are] one of the characteristics of the race.”⁸⁶ Foreign pastoralists were even worse. Fabre, in particular, considered Spanish and Italian transhumant flocks a key source of degradation: “The first task to pursue in alpine regions is the expulsion of the parasites of both the mountains and their people, these wicked pastoral vagabonds...[L]et us shut the doors to them as we would to the plague.”⁸⁷

The reform of agro-pastoral society advocated by the AAM and sympathetic foresters such as Fabre and Buffault was premised on a notion of environmental degradation rooted in local practices. They modulated the discourse of deforestation employed by the RTM into a program of reform and education to legitimize their own ‘interventions’ into alpine space.

The Parc de l’Oisans

Foresters, tourists and regional reformers converged in the creation of France’s first national park in 1913, the *Parc de l’Oisans*. Cobbled together with money from the RTM, publicity from the TCF and land from the AAM, the park crystallized tensions within the alpine restoration movement.

Located in the commune of St. Christophe-en-Oisans in the department of the Isère, the park was the culmination of a decade of intermittent lobbying by groups like the TCF, the Club Alpin de France and the SPPF. Henri Derfert, vice-president of the TCF, was instrumental in giving the movement for a national

⁸⁶ Pierre Buffault, *Insuffisance de notre législation en matière de conservation et de restauration des forêts* (Bordeaux: Imprimerie G. Gounouilhou, 1902), 3-4.

⁸⁷ Quoted in Artaud, “La transhumance dans les Basses-Alpes,” 283. While Fabre singled out Italian and Spanish shepherds as the major transgressors, a great deal of transhumants in Provence were “indigenous”, originating in the broad plains of the Crau and Camargue.

park system an organizational base, helping to create the *Association des Parcs Nationaux de France et des Colonies* in 1913. The steering committee of the new association was made up of representatives from tourist and scientific groups based in Paris as well as state foresters who were charged with carrying out the program.⁸⁸

It was clear from the beginning that the park had a mixed mandate of preservation, conservation and social reform. Alphonse Mathey, a forester stationed in Grenoble instrumental in procuring the funds to purchase the 4,200 hectares for the park, explained his choice of Saint-Christophe by underlining its “wild grandeur, admirable peaks, sparkling glaciers...[and] bountiful alpine fauna”. Yet he also emphasized the poverty of the surrounding countryside, its low population density and its narrow valley “easy to police.” Its location, he reasoned, would permit the “indefinite expansion of the Park over communal lands that were as poor, expansive, abandoned and interesting as those of Saint-Christophe.”⁸⁹

For Mathey, the park was an extension of the mission of alpine restoration carried out by the RTM. It had been created with RTM funds on lands that abutted an RTM reforestation perimeter. Situated along the Vénéon, a notorious torrent that drained into the lower plains of the Bourg-d’Oisans and the

⁸⁸ Kalaor and Savoye, *La Forêt pacifiée: Les forestiers de l'Ecole de Le Play, experts des sociétés pastorales* (Paris: Editions L'Harmattan, 1986), 108.

⁸⁹ Alphonse Mathey, “Parcs nationaux,” *Congrès forestier international de 1913* (Paris, 1913), 825-6.

Romanche river, the park would play a strategic role in reforestation and flood control as well as preserving “scenic” nature.⁹⁰

It would, according to Mathey, provide a much-needed “rest” for the mountain as well as serve as a crucial step in regulating water flow for the entire region. “[T]he effect of this acquisition,” he wrote to a colleague in 1912 prior to the purchase of the lands, “will be felt from the Vénéon to the Romanche, from the Romanche to the Isère, from the Isère to the Rhône.”⁹¹

Local populations occupied an ambiguous role in the creation of the park. Designed to both promote reforestation and preserve natural beauty, the park required the exclusion of local inhabitants who were held responsible for the degraded condition of the land. Not surprisingly, Mathey admitted that the park did not enjoy broad local support. Despite the public ceremony that accompanied the sale of communal lands to the state, the park was established in the midst of “acute fears of an essentially defiant population disturbed by what they viewed as the seizure of lands situated within rifle shot of their homes.”⁹² Yet local populations were also, in some ways, the target of the park. Mathey and others claimed, without any real explanation, that the park would help stem the tide of depopulation that had steadily sapped the commune of inhabitants, from 523 in 1881 to 451 in 1911.⁹³

⁹⁰ CAC800400 (15), Louis Breton, “Parc National du Pelvoux,” (1925).

⁹¹ CAC800400 (15), Alphonse Mathey, “Ventes en terrains à l’État: St. Christophe-en-Oisans,” (15 December 1912).

⁹² Ibid.

⁹³ L.A. Fabre, “Communes mortes et Parcs nationaux en haute montagne,” *Revue internationale de Sociologie* (November 1913), 708-9.

The invocation of depopulation as a factor in the creation of the park hinted, however obliquely, to the role of the AAM in its creation. Several years prior to its sale of lands to the French state, Saint-Christophe had leased more than 4,000 hectares of pasturage to the Alps branch of the AAM, the *Association dauphinoise de l'Aménagement des Montagnes*. For M. Audebrand, president of the ADAM, the leasing of communal pasturage followed the same script as in the Pyrenees. It was intended to educate local inhabitants about the importance of regulating pasturage and the consequences of downstream erosion and flooding. Like Descombes, Audebrand viewed local populations as playing a crucial role in preventing alpine degradation and hence securing the regularization of water flow for downstream industry and commerce. In this case, efforts of alpine restoration were allied with the creation of a new hydroelectric facility established on the lower reaches of the Vénéon which Audebrand viewed as crucial to the industrial development of the region.⁹⁴

While some of members of the AAM, including Descombes and Audebrand, supported the creation of the park, others saw in it the apotheosis of everything that was wrong with alpine restoration. To Lucien Fabre, the very principle of a national park was abhorrent, based on the same ideal of uninhabited alpine nature that he accused the RTM of nurturing. “The essential impulse [of the park] is to evacuate territory in order to create, in almost military fashion as at Yellowstone, a solitude that Rousseau himself would have most

⁹⁴ M. Audebrand, *Premier congrès international de l'Aménagement des Montagnes*, (Bordeaux: Feret, 1909), 75.

certainly found excessive!”⁹⁵ Critical of foresters who helped create the park, Fabre also lashed out at preservationist organizations for what he viewed as the “aesthetization” of alpine issues. Whether by the hand of foresters or tourists, his vision alpine landscapes tended by reformed inhabitants had suffered a mortal blow.

Conclusion

In 1923, fifteen years after his death, a bronze bust of Demontzey was erected on the summit of Labouret in the Basses-Alpes. It was a fitting site, noted one article, “once arid and denuded but restored and beautified today by the work of Demontzey.”⁹⁶ Among those attending the ceremony were the Minister of Agriculture and the presidents of the *Touring-Club de France* and the *Association de l’Aménagement des Montagnes*. Paul Descombes was there, along with several senators, deputies and state foresters. They had gathered to both pay homage to the man and his achievements as well as call for a return to his mission of alpine restoration which, since the First World War, had receded from public attention. Notable in their absence were local inhabitants for whom, one regional journal observed, “were still hostile to the work of regeneration.” Perhaps, it suggested, pilgrimages should be organized among local

⁹⁵ L.A. Fabre, “Communes mortes et Parcs nationaux”

⁹⁶ *Revue économique, sportive et touristique du Sud-Est* (30 septembre 1923)

schoolchildren so that they may learn the great benefits wrought by reforestation.⁹⁷

United in the commemoration of Demontzey and his legacy, the participants of this modest ceremony represented a composite vision of the alpine landscape and its relationship to the nation. Tourists, foresters and regional industrialists all brought their own desires to the mountain. While their idealized alpine landscapes continued to marginalize agro-pastoral populations, they also contributed to a growing awareness of natural catastrophe and ecological fragility. At the margins of the nation, the southern mountains had become the crucible of new attitudes towards nature and territory.

⁹⁷ *ibid.*

Chapter Six Risky Business: Inventing a Pine Forest

Introduction

In the summer of 1949 smoke darkened the skies over Bordeaux. The sun turned a burnished red as a fine ash settled over rooftops, cars and café tables. The forests of the *Landes* were burning. On August 20th, in the commune of Cestas in the Gironde, the fires overwhelmed a brave front of soldiers, property owners and workers. By the end of the day, eighty-two people lay dead. It was the tragic culmination of a decade of wildfires. The “*années rouges*”, as they came to be known, destroyed over 40% of the pine forests that stretched between Bordeaux and Bayonne, an estimated 440,000 hectares. The resin and timber industries at the heart of the regional economy fell silent. At a hastily organized memorial service following the tragedy, the Minister of War, Paul Ramadier, paid tribute to the fallen victims, mourning their loss while saluting their sacrifice. While he lamented the “terrible tribute paid for the safeguarding of a precious national resource,” he also asked the mourners to take solace in the knowledge that their loved ones died for a greater good: “A nation whose sons know how to confront danger [in the name of] the public good is a vigorous nation

in control of its destiny.”¹ For a brief moment, the fires provided an opportunity to reaffirm the bonds of nationhood following the dark years of defeat and occupation.

Yet the true measure of the catastrophe lay not in what it represented about the future of the French nation but what it revealed about its past. The fires cast into doubt nearly a century of intensive forestation begun under the Second Empire. For Louis Papy, a well-known geographer and historian of the region, they etched a blazing epitaph on the forests: “Ten years ago [the maritime pine] reigned from the Garonne to the Adour. But, today, the forest is for the most part devastated. The *Landes* has reverted back to the desert that it was one hundred years ago.”² French officials, dismayed by what they viewed as the gross mismanagement of landowners, proposed a far-reaching plan of fire prevention lest local apathy “lead us quickly and inevitably towards the transformation of our beautiful pine stands into unhealthy and sterile marshes.”³ In the commune of Lugos, where a mere ten percent of forest remained, local inhabitants rued their past mistakes: “Today we are paying the ransom of our misdeeds and errors, that is to say those which consisted of allowing, on the one hand, a continuous forest to develop without any measures that would insure its security while on the other hand favoring the abandonment of cultivated lands.”⁴ The fires marked the end of an era. Though the forests would survive, many of their myths would not.

¹ *Le Monde*, August 26, 1949.

² Louis Papy, “Richesses et dévastations de la Forêt landaise,” *Les Cahiers d’Outre-mer* (October-December 1948), 309.

³ Quoted in Jacques Sargos, *Histoire de la forêt landaise. Du désert à l’âge d’or* (Bordeaux : L’Horizon chimérique, 1997), 387.

⁴ Quoted in Charles Bouchet, *Lugos, commune des Landes de Gascogne: deux siècles d’évolution économique et sociale* (Bordeaux: Delbrel, 1952), 212.

In many ways the creation of the *Landes* forest resembles the “high modernist” improvement schemes that James Scott attributes to modern state-building. In particular, the dismantling of the communal property regime through large-scale land privatization- described in Chapter Two- achieved a kind “legibility” of property relations and land use. The engineered forest also seemed to go awry in the ways Scott predicts. Failure to appreciate the complexity of local conditions led to both immediate and long-range consequences. Rapid forestation brought social dislocation to the poorer segments of society unable to profit from privatization. As this present chapter will illustrate, dense monoculture stands of pines produced chronic problems of fire, soil exhaustion and disease that have demanded constant vigilance on the part of forest owners and state agencies alike. The invented forest in many ways eluded the control of its creators.⁵

The history of the *Landes* also complicates the notion of Scott and others that modern states, in their quest for environmental control, are fundamentally opposed to local practices.⁶ In the *Landes* the boundaries between state and society, far from being fixed and opposite coordinates, were in perpetual flux, mobilized by different groups in different ways as they sought to control the forest they all helped to create. Both the management and the meaning of the forest

⁵ James C. Scott, *Seeing Like a State: How certain schemes to improve the human condition have failed* (New Haven: Yale University Press, 1998).

⁶ For critical reappraisals of Scott’s work, particularly its tendency to reify the state as a unified and rational entity, see Fernando Coronil, “Smelling Like a Market,” *American Historical Review* 106, no. 1 (2001):119-129; Veena Das and Deborah Poole, “State and its margins,” in *Anthropology in the Margins of the State*, eds. Veena Das and Deborah Poole (Oxford: James Currey, 1991), 3-33; and Tania Murray Li, “Beyond the State and Failed Schemes,” *American Anthropologist* 107 (2005).

quickly became appropriated by the local landowners delegated to create it. They would re-invent the forest as a local and private resource, one in need of constant protection from a grasping state, even as they sought to reaffirm its- and their- place in the nation. I argue that it was precisely from this entanglement of state intervention and local invention that the modern forest arose. When viewed from this perspective, “through the trees” as it were, the state appears far more fragmented and discontinuous than typically portrayed.

Yet, as this chapter argues, engineered landscapes are something more than artifacts of state power and contested sites of nation building; they are also unpredictable agents themselves. The modern forest has proven difficult for either state or local institutions to control. Fire, in particular, has been a difficult adversary, destroying lives and property and reshaping both cultural perceptions and institutional policies of forest management. At once engineered and natural, the forest has become a theater for the construction and negotiation of risk, redefining the relationship between state, society and environment.

In the broadest sense, the history of the *Landes* suggests that modernization and state-building in France has led not so much to the conquest of Nature but rather the proliferation of hybrid natures, what Thomas Hughes calls “ecotechnical environments”, those intersections of natural and human-built worlds that have come to characterize modern states and their territory. Rather than assuming a simple narrative of either conquest or degradation, this notion of hybrid landscapes allows, indeed encourages, one to see the incoherence and conflict, as well as the promise, in the unpredictable encounters between society

and nature.⁷ They can lead to environmental degradation and social and economic dislocation, but also adaptation, innovation, and re-invention. As the American environmental historian Richard White reflects, “[t]here is a hope in hybrid landscapes.”⁸

Forestation and its discontents: the invention of an uncertain landscape

By the end of the nineteenth century, the forests stretched over one million hectares and fueled a booming forest industry that supplied domestic and international markets with turpentine, rosin, tar, railroad ties, mining beams and telegraph poles. Resin was the jewel of the new *Landais* economy. Until the outbreak of World War I, the region became one of the largest sources of turpentine and rosin in the world, second only to the flat-needled pine forests of the Southeastern United States.⁹ Turpentine or *térébenthine* was valued primarily as an ingredient in paint and varnish production. Rosin or *colophane*, a solid cake of highly refined resin, was used in the soap, paper and wax industries. By the early twentieth century, the region was producing, on average, 25 million kilograms of turpentine and 100 million kilograms of rosin each year. Though only

⁷ Thomas P. Hughes, *Human-Built World: How To Think About Technology and Culture* (Chicago: University of Chicago Press, 2004), 3, 153.

⁸ Richard White, “From Wilderness to Hybrid Landscapes: The cultural turn in environmental history,” *The Historian* 66 (2004), 563.

⁹ Thomas C. Croker, Jr., “Longleaf Pine: The Longleaf Pine Story,” *Journal of Forest History* 23:1 (1979): 32-43.

about one-fifth of American production, it was four times greater than that of its nearest European competitor, Spain.¹⁰

The fame of the *Landes* grew. The maritime pine became known as the *arbre d'or*, the golden tree that had brought prosperity and health to an impoverished corner of the nation. A 1910 article in the national newspaper *Le Figaro* cast an approving eye over the effects of the forests five decades on: "Today the pines are grown, the swamps have disappeared along with disease, the race of local inhabitants now eat, the beauty of the woods attracts the visitor who brings wealth to the towns."¹¹ The forests, one guide book explained, had not only enriched local inhabitants but improved their health as well: "[W]here the sands once shimmered under the burning sun, where all sorts of fevers and disease blossomed, the maritime pine has arisen, powerful and magnificent... The burning plains have transformed into the forests of resinous perfume and healthy airs."¹² Along the Atlantic coast, spas and tourist resorts proudly touted the virtues of the resinous forests to their clientele. An entire line of resin-based products became fashionable for the health-conscious.¹³

¹⁰ Ministère de la Guerre, *Enquête sur la reprise et le développement de la vie industrielle dans la région landaise* (Bordeaux: Delmas, 1917), 116-117, 136.

¹¹ Prévost Marcel, "Les Arbres," *Le Figaro*, February 6, 1910.

¹² J.-H Ricard, *Au Pays landais* (Paris, 1911), 45-46.

¹³ A cheaper and more convenient alternative to alpine spas, the resorts along the Arcachon coast quickly developed a devoted clientele, thanks in large part to a *bordelais* medical profession that believed the sea air and the resinous perfumes of pine created a healthy and peaceful atmosphere for tuberculosis patients. P. Guillaume, "Forêt et côte landaises au secours des tuberculeux," *Bulletin de la Société de Borda* (1988), 431-435. For more on the touristic development of the *Landais* coast, see Alice Garner, *A Shifting Shore: Locals, outsiders, and the transformation of a French fishing town, 1823-2000* (Ithaca: Cornell University Press, 2005).

Figure 9. An advertisement for resin tonic, 1906.



The triumphant narratives of forestation veiled the basic social, political and ecological liabilities of radical environmental transformation. As Chapter Two described in detail, the rapid spread of pine forests had severely disrupted traditional agro pastoral society. Enriching well-off landowners, forestation was ruinous for the small property owners, sharecroppers, agricultural laborers and, above all, shepherds or *pasteurs* that depended on the communal moors. Resentment over forestation grew in the first decades after the 1857 law, culminating in the great fires that swept through the region in 1870-1.

The state quickly found it had little say in the management of the forest it helped create. From the beginning, it had depended on local landowners to carry out the bulk of forestation. This, however, led to an obvious problem: the creation of privately owned forest where state forestry law had little sway.

Fire prevention became a key source of conflict between the state and local landowners. The speculative fever that had swept over the region had

produced a dense pine forest with few natural clearings. Though landowners had promised to maintain a certain amount of open pasturage, both as a local resource for pasturing interests and as a means to break up the continuous forest, few delivered, leaving the region vulnerable to wildfires. Already fuming over proposals to institute strict fire bans and establish a contingent of forestry agents to enforce regulation, landowners dismissed the 1873 state proposal to create a system of firebreaks as yet another effort of the state to gain control over their new forest. With few provisions for indemnification and little financial support from the state, mandatory firebreaks symbolized expropriation, not protection, for many landowners.

As the state retreated from the landscape it had helped invent, local owners found themselves struggling to control forest they claimed mastery over. Along with the growing threat of fire, tense labor relations, economic depression and renewed state claims over forest management ensured that landowners would be in a constant state of vigilance as their forests matured in the 20th century.

Labor and class in the new forest

The fires of the 1870s marked the passing of agro-pastoral society. Of course, remnants of the old order remained. Pasturage did not entirely disappear from the region, nor did many of the traditions and customs that defined local identity. However, a new social order quickly developed around the forest industry. As the forests matured, the rural population of shepherd,

sharecropper and small farmer was gradually replaced by a new regime of forest workers: lumberjacks, pit sawyers, charcoal makers and, above all, resin-tappers or *résiniers*.¹⁴

The old sharecropping estates or *métairies* that had once linked communal moors and cultivated fields in a metabolic loop of fertilizer and subsistence agriculture became the new hubs of resin production. The process itself had changed little from earlier times. The *campagne de gemmage* or “resin season” lasted from March to October, when temperatures rose enough to ensure the flow of resin. The tapping of mature pine trees (typically 20-25 years of age) was labor intensive. First, *résiniers* made a wide cut, known as a *care*, on one side of the trunk, under which they hung a small clay pot to collect the resin. They would return to re-open or enlarge the cuts every four to eight days to ensure the regular flow of resin. Eventually, a new cut would be opened on another part of the tree and the process would begin again. Following this practice, known as *gemmaie à vie*, an individual tree could be tapped for decades. On average, a healthy pine produced two liters of resin a season and the average estate produced between thirty and thirty-three barrels a year. The “harvesting” of resin, known as the *amasse*, typically fell to women. Every three or four weeks they would empty the resin pots into large flat-bottomed tubs and transport them by hand or head to barrels stationed in the area. From there, the resin would be transferred to the local distillery via ox cart where it would be transformed into turpentine or rosin, depending on its quality. Upon delivery of

¹⁴ While the new economy drew workers from other forested regions of France, it appears that much of the emerging labor force was made up of local inhabitants, particularly in the case of *résiniers*. Sargos, *Histoire de la forêt landaise*, 507-8.

their cargo, *résiniers* collected half of its cash value, determined by the current market prices, while the other half was remitted to the property owner.¹⁵

Figure 10. A *Landais* résinier at work.



Gemmeur dans la segue de la Bruze, Commensacq

The persistence of sharecropping in the industrial forests was a source of a tension between workers and owners. The key point of dispute was the division of resin sales, known as the *partage*. At the beginning of the 20th century, workers were receiving 14 to 15 francs per barrel, a sum that did not account for the steep rise in the global price of resin. While landowners' profits increased, workers' incomes stagnated. In 1905, workers established the first union in the region. In 1907, they organized their first strike. The first serious confrontation between workers and owners occurred in 1908 when resin workers from the village of Lesperon locked up several property owners in the town hall in order to

¹⁵ Marie-Dominique Ribéreau-Gayon, *Chasseurs de traditions: l'imaginaire contemporaine des Landes de Gascogne* (Paris: Editions du CTHS, 2001), 345-349; Ministère de la Guerre, *Enquête sur la reprise et le développement de la vie industrielle dans la region landaise* (Bordeaux: Delmas, 1917), 103-104.

force a new labor contract on them. After three days, the 34th Infantry had to intercede to free them. The secretary of the Lesperon union, Jean Joyeux, was jailed for six months but the confrontation paid off: in 1909, the unions were able to renegotiate contracts which increased workers' share of resin from 14 to 40 francs a barrel. By 1910, over thirty local unions had sprung up across the *Landes*.¹⁶

Tense labor relations were accentuated by the growing cultural distance between the classes. Flush with the income from their forests, many landowners gravitated to village centers and larger towns. They became, in effect, absentee landlords, distant from the social and environmental world of *résiniers* who remained to work their properties. This new forest bourgeoisie adopted the cultural trends of the urban middle class. Beneficiaries of privatization, they tended to be solidly Republican, joining the lawyers, doctors, teachers, bankers, industrialists and manufacturers who enthusiastically supported Jules Ferry and his successors.¹⁷ Quarried stone homes, with stately fenced lawns, replaced the traditional wood and tile single-story estates set amidst field, forest and pasture; the local Gascon dialect was shed for proper French. As a local village priest wryly observed, these "semi-bourgeois scorn the patois because the patois is the language of the common people."¹⁸

¹⁶ Francis Dupuy, *Le pin de la discorde: les rapports de metayage dans la Grande Lande* (Paris: Editions de la Maison des sciences de l'homme, 1996), 209-10, 286-7; Jean-Tucoo-Chala, "Introduction à l'histoire du mouvement syndical des gemmeurs: l'action de Charles Prat," *Bulletin de la Société de Borda* (1984), 376-378.

¹⁷ Jean-Claude Drouin, "Cent Dix Ans de Suffrage Universel," in *Les Landes Entre Tradition et Ecologie* (Bordeaux, 1996), 15-16.

¹⁸ Quoted in Bernard Manciet, *Le Triangle des Landes* (Arthaud, 1981), 20; Dupuy, *Le pin de la discorde*, 209-11, 286-7.

If privatization had permitted landowners a new lifestyle as a forest bourgeoisie, it came not only at the cost of increasingly strained relations with workers but also a basic inability to confront the growing threat of fire. The ideals of private property that quickly developed among forest owners undercut efforts to create collective institutions of fire prevention. The question of how to balance private interests and public security became a pressing issue as the forest spread and matured and fire became endemic to the region.

Unnatural disasters: confronting fire and constructing risk, 1870-1914.

Prior to the extension of the industrial forests, fighting fire in the *Landes* was strictly a communal affair. When a local forest erupted in fire, alarms sounded, alerting inhabitants to not only their presence but, depending on the cadence of the alarm, their location as well. Under the leadership of the mayor, inhabitants would rush, armed with shovels, hatchets and makeshift brooms, to counter the threat.¹⁹

Local society employed two basic techniques of fire control. First, there was *battage*, known as *lo foalh* in Gascon. Villagers would form line in front of the oncoming fire and, using green boughs of pines, beat at its burning edges, working inward. This method required little wind, not too much underbrush and a great deal of discipline. The second technique of fire control was the *contre-feu*. Related to the pastoral practice of incineration, the *contre-feu* was essentially a

¹⁹ *Enquête*, 51-54; Jean-Michel Dujas and Bernard Traimond, "Le maître du feu: Les incendies dans les Landes de Gascogne," *Terrain* 19 1(1992);.

controlled burn of undergrowth along the projected path of a fire too large or fast moving for *battage*. It required both intense discipline and nerve on the part of inhabitants as well as some clearing behind to ensure that participants would not be trapped. When executed correctly, *contre-feu* proved very effective, depriving both fuel and oxygen to an oncoming fire.²⁰ However they were also dangerous. Set too close or too far from the main fire, *contre-feu* risked spreading the inferno and endangering the lives of its creators. Eleven deaths in the commune of Illac in 1891 were attributed to a poorly set *contre-feu*.²¹

Firebreaks or *pare-feu* were an essential component of traditional methods of fire control. They slowed the passage of fire, provided access to fire brigades and afforded bases for the creation of *contre-feu*. They had been employed since at least the 18th century as a way to protect forested plots from the frequent incinerations practiced on the open moors. While ostensibly an extension of private property, firebreaks were often viewed as a public space and their management a shared obligation of both forest and pasturage interests. In a letter to the *intendant* of Bordeaux in the 1750s, the widow Jeanne Lalesque, attempting to protect her forested property in the parish Parentis-en-Born from the frequent incinerations of adjacent communal *landes*, requested that neighboring parishes contribute funds for the creation of a fire break separating their pasturage from her forest.²²

²⁰ Eloi Samanos, *Traité de la Culture du Pin Maritime* (Paris: Librairie agricole de la Maison rustique, 1864), 45; M. Delassasseigne, *Dunes et Landes de Gascogne: La Défense des forêts contre les incendies* (Paris: Imprimerie nationale, 1900), 16-17.

²¹ *Enquête*, 54.

²² R. Millières-Lacroix, *Les incendies dans les forêts de pins des Landes de Gascogne: Etude sur le projet de loi déposé au Sénat* (Paris: P. Mouillot, 1900).

With the creation of the modern commercial forests, the importance of firebreaks increased just as the social ties that bound together agro-pastoral communities eroded. The engineer Henri Crouzet, one of the chief architects of the 1857 law, had perceived the importance of firebreaks early on. In a 1859 report to the Emperor, Crouzet had warned that within several years “forests will cover the region in a continuous and compact mass. The danger of fires would then leave no protection for property owners if the forests were in conditions as favorable to the spread of fire as they are today.”²³ Following the devastation of the 1870s, Crouzet drafted a plan for a department-wide system of fire protection. By establishing a series of cleared corridors ranging from fifteen to fifty meters in width, he reasoned, one could slow, if not entirely stop, the course of a fire. He proposed dividing the forest into seven zones, each organized by a *syndicat* or association of interested landowners who would contribute annual fees to support the costs of creating and maintaining firebreaks as well as organizing surveillance and fire brigades.²⁴ Lauded by the official inquiry into the fires, the majority of Crouzet’s plan was adopted by the 1873 bill drafted by the *Eaux et Forêt* administration. It recommended the creation of a *quadrillage* or grid of public firebreaks for the entire region, twenty meters wide at ten kilometer intervals, as well as a secondary system of private firebreaks around individual properties.²⁵

²³ Henri Crouzet, “Rapport à l’Empereur,” *Moniteur Universel*, 11 October, 1859; AN F10 2342, Crouzet, “Compte-moral de la situation du service au 30 novembre 1863.”

²⁴ Milliès-Lacroix, *Les incendies*, 17; Dujas and Traimond, “Le maître du feu.”

²⁵ ADL 7 M 420, Marcel Monnier, “Rapport sur le projet de loi destiné à prévenir les incendies dans les landes boisées de Gascogne,” (1873).

The plan, roundly rejected by local populations, never materialized into concrete policy. Landowners, though aware of the importance of firebreaks, were quick to defend their property rights from any unwarranted state regulation.²⁶ With few provisions for indemnification and little financial support from the state, mandatory firebreaks appeared as mere expropriation.²⁷ Already fuming over proposals to institute strict fire bans and establish a contingent of forestry agents to enforce regulation, landowners dismissed firebreaks as yet another effort of the state to gain control over their new properties. If the state wanted to establish a fire prevention system, they reasoned, then it should do so by extending the public roads created by the 1857 law. Roads, of course, had the added benefit of transport and, as public thoroughways, were eligible for state funding. If the threat of fire was, indeed, a “public” concern, than why should local landowners shoulder all the costs?²⁸

Though celebrated by later historians as a “rebellion of local society against the centralized state,” the rejection of the 1873 bill came at a steep price.²⁹ Having rebuffed any effort to impose regulations on their forested property, local landowners failed to institute any major fire prevention measures. In many cases the only provisions landowners made to protect their forested property was the sporadic maintenance of sheep corridors known locally as *péguilheyres* that had once linked the agricultural centers of habitation to the communal *landes*. Yet these remnants of the traditional agro-pastoral landscape

²⁶ Many of the landowner that testified at the Faré inquiry supported the idea of firebreaks.

²⁷ Faré, *Enquête*, xxxiii.

²⁸ *ibid.*

²⁹ Sargos, *Histoire de la forêt landaise*, 505

had begun to disappear as forestation intensified and property owners restricted the passage of sheep among their young plantations.³⁰ With few roads and firebreaks and no collective institution for management, the forest became particularly vulnerable to wildfire.

The fires that broke out in the summer of 1893 destroyed over 46,000 hectares of forest in the Landes and Gironde. They struck the southern and western portions of the Grande Lande but also the older coastal forests of the Marensin and Pays de Born, regions which had largely escaped the flames of the 1870s. Solférino and Ychoux in the Grande Lande each lost over 2,000 hectares of forest and more than 500,000 francs in revenue. Parentis-en-Born lost 2,500 hectares of forest worth an estimated 600,000 francs. Linxe in the Marensin reported losing 1,200 hectares worth 400,000 francs.³¹

Fire represented not just the loss of immediate and future revenue; it also threatened to rent the very social fabric of the region, leading to the unemployment and possible out-migration of resin workers. According to department officials, over 300 forest workers across fourteen communes were put out of work indefinitely.³² In a plea to the prefect for public assistance, the municipal council of Morcenx underlined the threat of the fires to local communities:

³⁰ It is interesting to note that the terms of *parefeux* and *péguilheyres* were often used interchangeably in the region well into the 20th century. ADG 7M 636, Deliberations of the municipal council of Lugos (Gironde), 15 February, 1925.

³¹ ADL 1M 342, "Incendies de 1893."

³² Ibid.

Flooding, hail storms, drought are scourges the damages of which are generally reparable over a short period of time, whereas a forest fire is the annihilation, the total ruin, of what could be considered at once the capital and revenue [of local communities]...It [represents] a total loss for at least twenty years, while it plunges into misery families who depend wholly on resin production.³³

Suspicious of arson ran high. While acknowledging the excessive aridity that summer, many local forest owners and officials in the Born and Marensin regions blamed the fires on the growing number of migrant workers travelling between Bordeaux and Bayonne. Several mayors reported resin workers having seen suspicious strangers in the forest prior to the outbreak of fire. Rumors spread of a black-clad stranger stalking the forests prior to the outbreak of fires. In the commune of Linxe, landowners lobbied the prefect to enforce the laws against begging that had fallen into disuse in order to suppress the circulation of vagabonds who “constitute a veritable threat to property.”³⁴ The mayor of Levignacq went so far as to suggest the billeting of national troops in local residences.³⁵ Despite police reports largely discounting these claims of widespread arson, the prefect of the Landes issued a circular to mayors and police commissioners, instructing them to take measures to “clear our lands of the

³³ ADL 1M 342, Deliberations of the municipal council of Morcenx, 4 September 1893.

³⁴ Ibid., Petition of local landowners at Linxe, 7 September 1893.

³⁵ Ibid., Letter from mayor of Levignacq to Prefect, 27 August 1893.

vagabonds and mendicants [who]...following their hateful and destructive urges set the forests on fire.”³⁶

The outcry against marauding strangers in the forests marked a significant shift in attitudes towards fire in the region. In the early years of forestation, the threat of fire materialized in the figure of the unruly and disaffected shepherd whose incinerations of both moor and forest marked the social dislocation created by forestation. Yet as the forest spread and the *résinier* supplanted the *pasteur* as the custodian of the *Landes*, suspicions of arson shifted from insiders to outsiders.³⁷ This externalization of risk masked the basic truth that both the ecological and social dimensions of fire had changed with the creation of the industrial forests. Just as fire was becoming endemic to monoculture pine production, private ownership was making any collective system of fire prevention difficult.

The wide-spread destruction of forests in 1893, followed by another round of fires in 1898, spurred landowners, department officials and state ministries to reconsider a system of fire protection for the region. For the next four decades, they wrestled with the question of how to balance the public good of fire prevention with the private rights of landowners. At the center of this debate was the question of creating and maintaining *pare-feux* or firebreaks in the forest.

³⁶ Ibid., Report from brigadier Verot at Castets, Arrondissement of Dax, 30 August 1893; Prefectural circular, 4 September 1893.

³⁷ Fires erupting in the spring of 1887 had left local populations “terrified” and “over-excited”, to the point where strangers in their midst risked being harmed. ADL 7M 418, Deliberations of the General council of the Gironde 26 April, 1889.

In contrast to the 1870s, the first proposals for public fire prevention came not from the state but forest owners themselves. Following a deadly forest fire that destroyed a *cit  ouvri re* on the outskirts of Bordeaux , killing ten people, the General Council of the Gironde lobbied for a new national law on fire regulation, similar to the one passed for the *Provenal* pine forests of the Maures and Est rel in 1870.³⁸ The Forestry Administration, still smarting from their defeat in 1873, was reluctant to over-extend itself again. The Director of Forests politely rebuffed requests from the Gironde, explaining that the region was simply too vast for a similar system of surveillance and protection. The *Landes*, the Director of Forests pointed out, covered almost 800,000 hectares, eight times the territory of the Maures and Est rel forests. Moreover, whereas the state possessed nearly one-quarter of the *Provenal* forests, inter-dispersed among private and communal lands, it controlled less than 10% of the *Landais* forests, all of which were confined to a narrow band along the coast. In effect, its areas of operation were judged too distant from the heart of forest, making effective surveillance and management impossible without massive investments in infrastructure and personnel, the costs of which the national legislature was unlikely to approve.³⁹

Excluded from the private forests, foresters focused on putting into practice their own ideals of fire management. Their solution to fire prevention was circulation and communication. By 1900 the state forests boasted almost 1,000 kilometers of firebreaks. In addition, a basic infrastructure of fire-fighting was established, such as the storing of equipment in forestry cabins, organized

³⁸ ADL 7M 418, Deliberations of the General Council of the Gironde, 17 April and 31 August 1893; 7 September 1898.

³⁹ R. Milli s-Lacroix, *Les incendies*, 29-30.

surveillance during dry periods and the installation of telegraph lines. At the 1900 Universal Exposition in Paris, the Inspector of Forests, Delassasseigne, lauded the state forests as a model of modern and rational fire prevention, one that contrasted sharply with the conditions of local forests where, he claimed, the apathy of private landowners had allowed forests to become veritable matchboxes, ready to explode into flames at any moment.⁴⁰

Council members in the Gironde, most of whom possessed large tracts of forest, condemned what they viewed as blatant negligence on the part of the state. One member of the General Council complained that it was grossly unfair that, while the government was willing to act on behalf of Mediterranean forests in the Var, it failed to address the problems faced by the far more “important” *Landes* forest that had given 800,000 hectares of woodland to the nation. Another denounced the apathy of Paris towards a forest it had helped to create: “What new disasters must there be before our government is moved to action? How many more hectares of forest must be destroyed? How many more carbonized bodies does one want to see?”⁴¹

Local opinion over the need for fire prevention, however, was hardly unanimous. In the neighboring department of the Landes, forest owners, as they had in the 1870s, flatly rejected the principle of state intervention in the private forests. Cost and effectiveness were central considerations. The creation of new firebreaks in the forests often required felling trees that had just reached resin-

⁴⁰ M. Delassasseigne, *Dunes et Landes de Gascogne: La Défense des forêts contre les incendies*. (Paris, Imprimerie nationale, 1900), 7, 17-19; Pierre Buffault, “Les garde-feu et leur utilisation,” *Revue des Eaux et Forêts* (November 1901).

⁴¹ ADL 7M 418, Deliberation of the General Council of the Gironde, 31 August 1893, 17 April 1893.

producing age, a sacrifice few of the smaller landowners in the Landes were willing to consider. Moreover, many doubted whether firebreaks were even effective. They had to be scrupulously cleared on a regular basis and even then they often failed to prevent exploding cones from jumping the line. Owners recalled a fire in 1892 that had cleared a fourteen meter firebreak around Solférino, Sabres and Commensacq in the heart of the forest, destroying 500 hectares of valuable 40 year old pines. Having sacrificed a portion of profitable forest, would owners be any safer from the threat of fire? ⁴²

Different attitudes towards fire stemmed in part from the heterogeneity of the forest itself. Forested property in the Landes tended to be smaller and more fragmented than in the Gironde, where larger estates predominated. Owners in Landes complained that the cost of clearing and maintaining perimeters, while manageable for larger and wealthier estates surrounding Bordeaux, would ruin them, the proportion of cleared land to forest being so much higher. In addition, there was a widely held perception that the Gironde forests were more vulnerable to fire.⁴³ Whereas much of the Gironde's forest was exploited for timber, most forests in the Landes were managed for resin production, a reflection in part of the high transport costs in a department still under-served by roads and rails. Resin-producing forests tended to be more open in order to allow ample sunlight to penetrate the understory and promote photosynthesis. Some owners claimed

⁴² Buffault, "Les garde-feu et leur utilisation"; *ibid.*, "Essais d'introduction dans les dunes de Gascogne de végétaux étrangers aux sables," *Bulletin de la Société de Géographie commerciale de Bordeaux* (1903): 307-311; L. Pallas, "Incendies des Landes," *Le Républicain landais*, June 15, 1892

⁴³ There was some empirical evidence for this claim. In 1893 and 1898 fires combined, 48,000 hectares burned in Gironde compared to 18,000 hectares in the Landes. Milliès-Lacroix, *Les incendies*, 28.

that this, along with the regular presence of *résiniers*, made their forests less prone to fire than the larger estates in the Gironde where timber stands were denser and where there were far fewer vigilant eyes and ears.⁴⁴

The stalemate over public fire prevention led to a reconsideration of more local solutions. Raphael Milliès-Lacroix, the long-standing radical republican senator from the Landes (1897-1933) and a strong proponent of fire management, conceded the obstacles to collective management. “Unity of interests,” he reluctantly admitted in 1900, “does not exist in the Landes de Gascogne.” To resolve this problem, he proposed the creation of a more localized network of communal associations (*syndicats*) that would respond to the specific conditions of forest fires in their vicinity. Ideally, each landowner would be responsible for maintaining firebreaks on their land. The association would oversee a ban of fire during dry spells, hire guards, drill wells and purchase equipment like billhooks, shovels, buckets and holding tanks.⁴⁵

Despite the collective traditions of fire fighting in the forests, it was not until the late 1880s that the first formal *syndicat* was established in the commune of Onesse. Under the guidance of the mayor, a group of landowners contributed ten centimes per hectare to fund the creation and maintenance of firebreaks, the clearing of brush around roadsides and the organization of local surveillance, especially on Sundays and holidays when the risk of fire was greatest.

⁴⁴ Deliberations of the General council of the Gironde, 31 August, 1893; A. Poisson, “Incendies de pins” *Le Républicain landais*, April 3 1889.

⁴⁵ Milliès-Lacroix, *Les incendies*, 41; Ricard, *Au Pays landais*, 166-176.

Inhabitants were furnished with alarm horns, each neighborhood or hamlet assigned a different call so that fires could be quickly located by the community.⁴⁶

Onesse seemed to provide a model of fire protection for the rest of the forest. Attributing the lack of extensive damage suffered by the commune during an outbreak of fires in 1893 to the establishment of the *syndicat*, the mayor wrote to the prefect that, if adopted region-wide, “it could finally give to our forested region a true protection against the scourge that menaces it.”⁴⁷ Impressed, a commission established in 1888 to examine the issue of fire prevention concluded that local associations were the “only practical means of protecting the owner of forests from certain ruin.”⁴⁸ Even the General Council of the Gironde, long skeptical of the effectiveness of local fire management, had begun to warm to the idea.⁴⁹ Though still adamant about the need for a formal law governing fire prevention measures, some members advocated the local *syndicat*, modeled on Onesse, as a practical and politically palatable alternative to public measures.⁵⁰ Perhaps, one councilor Callen asked in 1898, it would be better to lobby for “measures supported by the majority of *Landes* inhabitants, measures informed in some ways through experience, rather than address ourselves to the Forest Administration, often incompetent, always impractical...”⁵¹ Yet, despite this

⁴⁶ ADL 1M 342, Letter from the mayor of Onesse to the prefect of the Landes, 13 September 1893.

⁴⁷ *Ibid.*

⁴⁸ Millières-Lacroix, *Les incendies*; Poisson, “Incendies de pins.”

⁴⁹ In 1872 the *Société d’Agriculture de la Gironde* had rejected the association as an adequate response to the threat of fires, advocating instead a system of access roads and firebreaks that would be undertaken by the *Ponts et Chaussées* and organized and funded as *chemins vicinaux*. ADL 7M 418, Deliberations of the General Council of the Gironde, 30 August 1872.

⁵⁰ ADL 7M 418, Deliberations of the General Council of the Gironde, 7 September 1898.

⁵¹ Support for local associations did not preclude state action, a principle that the General Council of the Gironde had long supported. When challenged by a colleague why he had not established

shifting sentiment towards the effectiveness of local action, only eighteen communes in the region had established some sort of voluntary association by the end of the 19th century. Complained one council member in the Gironde, clearly exasperated by the inability to achieve any coherent policy for the forest as a whole, “there are no cantons for fire, which races with extraordinary speed from village to village; what one can do in a canton, one should do everywhere.”⁵²

Debates over fire prevention in the region point to the politics of risk that had developed alongside the forest. Perceptions of the threat of fire were mobilized by different groups to reinforce their own claims over the environment. For large landowners in the Gironde, the threat of fire became a means of lobbying for greater state intervention that they saw as necessary to ensure the future health of the forest. Among the smaller landowners in the Landes, it became a way to assert their own expertise and deflect calls for state intervention, which they associated with taxation and regulation. Meanwhile, the state itself seemed to have little stake in the forest it had helped invent. While foresters did not hide their contempt for how the private forests were managed, they had little authority in the region and contented themselves with tending their forested enclave among the dunes.

a syndicat in his own canton, Callen replied that he had tried but that land owners were apathetic. Rather than mandatory firebreaks, what the region needed was mandatory associations. Ibid
⁵² Milliès-Lacroix, *Les incendies*; ADL 7M 418, Deliberations of the General Council of the Gironde, 7 September 1898.

Still, the inability of forest owners to agree to public measures of fire prevention is perplexing. Cost seemed to be central consideration. The creation of new firebreaks in the forests often required cutting down trees that had just reached resin-producing age, a sacrifice few owners, particularly smaller owners in the Landes, were willing to accept. Moreover, there was some doubt as to the effectiveness of firebreaks, regardless of their width and upkeep. As the fuel for fires increased dramatically with extensive forestation, the old techniques of firebreaks seemed outmoded, but few alternatives were suggested.

At the same time, the acrimonious relations with state foresters suggest how fire itself had become a contested object of expertise. Local practices, like bough-beating and counter-fires, were considered by state foresters quaint at best, irrational at worst. For them, the only way to master fire was through an integrated system of surveillance, communication and firebreaks. Local owners, on the other hand, tended to view such measures not in terms of the public good which they were cast but rather as instances of state intrusion into their forests and their lives.

Forest owners' aversion to public fire policy was also rooted in their attitudes towards property. Forests were a social as well as economic resource. Private forest was a *patrimoine*, an inheritance that defined the identity of owners, ensured generational continuity and forged a powerful sense of place. For many, the specter of state foresters, dictating the terms of forest management and demanding annual contributions, was more threatening than

fire itself. In local parlance, forest owners found themselves caught between “le feu et le fisc”: fire and taxes.

Figure 11. A modern firebreak in the *Landes*.



A Dying Forest? War, depression and degradation

In first decades of the twentieth century, war, economic depression and foreign competition added to the unresolved problems of labor and fire in the forest. During World War I, the French war machine had an insatiable appetite for timber as well as lives: hundreds of thousands of trees were felled for barracks, trenches, barbed wire fence posts, mining beams, temporary bridges,

encampments, and fuel.⁵³ The *Landes* became an important wartime resource. State requisitions of private and communal forest were consumed at an estimated rate of 400,000 cubic meters of pine per month between 1914 and 1918.⁵⁴

Scarred by clear-cutting and depleted of its workforce, the postwar forest became even more vulnerable to fire. A commission established in 1918 thought the moment had come to adopt region-wide prevention measures. Since property owners often balked at the sacrifice of private forest, the commission reasoned that they might prove more receptive now that they possessed large sections of unproductive clearing. In 1924, drawing on the experience of local initiatives, the state mandated local landowners to create associations for each commune in the region. However the worsening economic situation of the resin and timber industries, amplified by the onset of global depression after 1929 and increasingly bitter relations between forest workers and owners, made improvements in fire protection a difficult prospect.⁵⁵

The most crippling development of the interwar years was the decline of the resin industry, the heart of the regional economy and rural society. During the 1920s traditional outlets for resin exports began to contract as competition from the United States, central Europe, Scandinavia and Russia increased and trade restrictions tightened. The economic crisis of 1920-21 saw the price of resin drop

⁵³ Andrée Corvol, "La Requisition des Bois du Sud-Est: Une chance ratée (1914-1939)," in eds. Corvol and Jean-Paul Amat, *Forêt et Guerre* (Paris: L'Harmattan, 1994), 131-154

⁵⁴ Private and communal forests bore the brunt of requisitions while the state forests along the Atlantic dunes remained relatively untouched. Larroquette, *Les Landes de Gascogne*, 326-7.

⁵⁵ ADL 7M 413, "Conclusions du rapport de la Commission mixte pour le maintien du Travail National," 1918; "Avis émis par la Commission consultative des exploitations forestières de guerre du département des Landes," January 1919; "Conférence interdépartementale," 13 February 1919.

from 1200 francs to 210 francs a barrel in a single year. After a brief convalescence between 1922 and 1926, prices again plummeted, this time for good. Increased competition was one factor. Forest owners had to compete not only with producers in the United States and Spain but also New Zealand, Portugal, Greece and even other regions of France, like the Var and Bouches-du-Rhône. Economic depression further deflated prices as consumption waned. With the decrease in consumption during economic crisis, markets flooded and prices dropped. From a record high of 1887 francs in 1926, the price of resin had fallen to an average of 240 francs by 1934. During the same period, overall resin production had decreased 25%, from 400,000 barrels in 1925 to 300,000 barrels in 1935.⁵⁶

The prolonged slump in resin prices strained the already tenuous relations between forest workers and property owners. By 1933, the annual income for a *résinier* shrank to 3,600 francs, almost one third of what it had been in 1925, half what it had been in 1930. Syndicalism in the spread through the region in the interwar period and in 1934 the *Fédération des métayers et gemmeurs du Sud-ouest* was established, unifying the various regional and local unions. Union activity climaxed with a mass strike in 193 when 30,000 resin workers converged on Mont-de-marsan, the capital of the Landes, to protest their economic situation and demanded that the prefect intercede to stabilize the price of resin through

⁵⁶ ADL 7M 415 “Rapport sur la situation des produits résineux” (nd); ADL 7M 416 “Rapport sur la revalorisation de l’essence de térébenthine” 20 September 1935.

subsidies to communes. Though they succeeded in obtaining a twenty percent increase in their “share”, the writing, it seemed, was on the wall.⁵⁷

Landowners, feeling the winds of change at their back, fought to preserve both their forest and their way of life. In the face of growing uncertainty over the future of their forests, they forged new connections to the market and the nation. They launched promotional campaigns for forest products and lobbied hard for reductions in transport costs and increases in protective tariffs. In the period of reconstruction after World War I, they tried, unsuccessfully, to convince the government to exclusively use *Landais* timber in reconstructing the war-torn eastern regions. They promoted the virtues of authentic French resin to paint and varnish industries that were increasingly turning to cheaper products abroad, including synthetics. They even became passionate boosters of wood-burning engines or *gazogenes*, all the rage in years leading up to World War II, hosting rallies and inviting prominent members of the government to attend. They portrayed the *Landes* as the region that could provide “energy independence” to coal and oil-deficient France. In 1935, following one of these rallies, the industry paper *Bois et Résineux*, declared the *gazogene* the “the true solution to the forest crisis in the Landes.”⁵⁸

Despite their best efforts, however, the forest was dying. Amidst the persistence of widespread fires, general stagnation of the forest economy, the worsening situation of resin workers and the acceleration of depopulation, the

⁵⁷ R. Sargos, *Contribution à l'histoire du boisement des Landes de Gascogne*, 490; Larroquette. *Les Landes de Gascogne*, 38; F. Dupuy et al, “Ethnographie,” in *Landes*, ed. Christine Bonneton (Paris: Bonneton, 1991), 119; Tucoo-Chala, “Introduction à l'histoire du mouvement syndical des gemmeurs”

⁵⁸ *Bois et Résineux*, 30 June 1935

myth of the *arbre d'or* had evaporated by the 1930s. The forests that were supposed to transform the region into a model of rational management and its inhabitants into modern French citizens had begun to witness their own form of degradation. In addition to the constant danger of fire, the drainage networks that had been in place since 1857 were failing. In certain areas forests were in danger of returning to state of sodden moor, while in others the force of erosion, carving subterranean channels below the soil, had made drainage too effective, desiccating the forests. Where drainage was insufficient, grasses and ferns spread, preventing the germination of pine seeds. When dried, this new undergrowth became extremely flammable, adding to the dangers of summer fires. One observer, the geographer Paul Arqué, openly wondered whether “the *Landes* will not return by such degradation to its formerly wild state.”⁵⁹

At the crossroads of catastrophe: the return of the state

Already staggered by economic, social and ecological setbacks, the forests faced their stiffest test in the 1940s. The outbreak of World War II again sapped the region of its rural workforce and, in their absence, fires returned with a vengeance. Between 1939 and 1949, over forty percent of the forest, an estimated 440,000 hectares, was wiped out.

Caught between the twin threats of fire and depopulation, forest owners, long resistant to collective initiatives of any sort, finally relented to change. In

⁵⁹ Paul Arqué, “Problème d'assainissement et de mise en valeur dans les Landes de Gascogne,” *Revue Géographique des Pyrénées et du Sud-Ouest* (1935), 161.

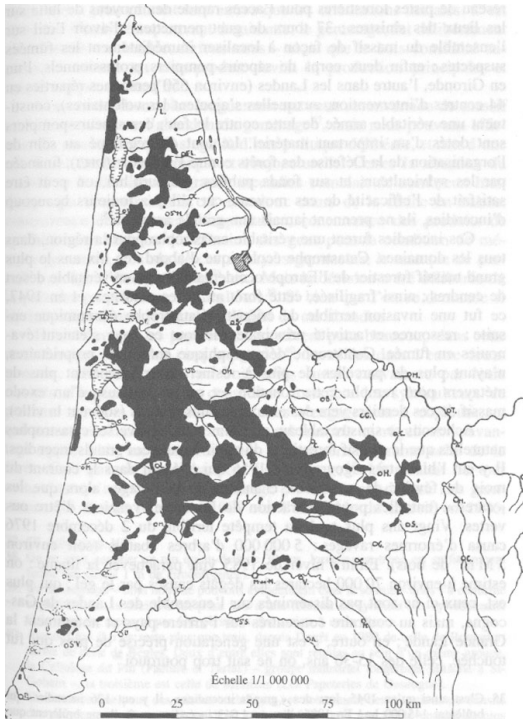
1947, the first mutual insurance organization, known as the *Mutuelle Incendie des Sylviculteurs du Sud-Ouest* or M.I.S.S.O., was created. Its goal was to assist property owners in replanting their lands and was funded by a voluntary tax on all forestry products that every individual and professional organization linked to the industry paid.⁶⁰

If the fires spurred landowners to protect themselves against future risks, they also sparked renewed claims of state management over the region. French officials, dismayed by what they viewed as the gross mismanagement of landowners, proposed a far-reaching plan of fire prevention. Through a series of ordinances, public officials established the foundations for a comprehensive system of fire prevention in the region. Covering nearly 1.5 million hectares across three departments, it established a zone of intervention where the government would take charge of fire prevention. The key provisions were the creation of a vast grid of firebreaks, a professional corps of firefighters and mandatory fire brigades or *syndicats* for each commune. While the newly established National Forestry Fund, known as the F.F.N., helped subsidize part of the cost, forest owners were expected to contribute through a special property tax.⁶¹

⁶⁰ Franck Soulan, "La M.I.S.S.O. (Mutuelle Incendie des Sylviculteurs du Sud-Ouest): Cinquante ans de mutualism au service de la forêt landaise (1947-1996)," in *La Modernisation du monde rural en Aquitaine*. (Bordeaux: Fédération historique du Sud-Ouest, 1999), 427-442.

⁶¹ Roger Sargos, *Plan de sauvegarde de la forêt landais et de remise en valeur des Landes de Gascogne* (Bordeaux: Delmas, 1949).

Figure 12. Forest burned (in black), 1940-1947.



The parallels between the 1948 ordinance to protect the forests from fire and the 1857 law that helped create them are striking. The advocates of fire protection portrayed the *Landes* in terms that echoed those used by the proponents of forestation nearly a century earlier. The legacy of the 1857 law was in grave danger, they argued, not just from fires but from locals themselves: “The existence of barren expanses of tens of thousands of hectares practically abandoned by their owners following fire and clear-cutting is unworthy of a great country like France.” If the state did not step in, “[their] apathy towards all the great issues of forestry management in the *Landes* will lead us quickly and inevitably towards the transformation of our beautiful pine stands into unhealthy

and sterile marshes...”⁶² The *Landes*, it seemed, had come full circle. The forest that had promised to vanquish a desolate wasteland was, itself, on the verge of reverting back to its prior state, threatened by local populations unable, or unwilling, to maintain their landscape in the interests of the nation.

Towards an uncertain future

The postwar era testified to the difficulty in maintaining this engineered landscape. Depopulation was a particular concern. In the wake of the destruction left by the great fires of the 1940s, forest owners began to reorganize production around the pulp and timber industries. The destruction of large sectors of mature pine, combined with the new economic orientation of the forests, left little hope for an already demoralized *résinier* population that had failed to acquire any substantial improvement in their status or condition since the beginning of the century. Increasingly, workers turned to other occupations or left the region for better prospects elsewhere. Of the some 18,000 *résiniers* working the forest in 1946, a mere 150 remained in 1985.⁶³ With the decline of the resin industry, the monoculture pine forests ceded some terrain to large-scale corn production that began in earnest after the fires of the 1940s. (Over one-tenth of the *Landes* is now dedicated to maize production) Operated primarily by outside firms, it has

⁶² Excerpt from the text of the Ordinance of April 28 1945, from Jacques Sargos, *Histoire de la forêt landaise*, 387.

⁶³ Dupuy, *Le pin de la discord*, 36-38, 301-313.

added little to the regional economy, requiring intensive fertilization, drainage and irrigation but employing few local inhabitants.⁶⁴

The steady depopulation of the forests has also made fire prevention problematic. On the one hand, the reluctant collaboration of state and local society after World War II proved to be an effective method of fire deterrence. Between 1947 and 1950, the average extent of damage caused by an individual fire was 150 hectares. That average dropped to 5.5 hectare between 1950 and 1964 and declined even further between 1964 and 1971, to 1.7 hectares. Today, over 245 DFCI associations are now active in the region, maintaining the basic infrastructure of fire fighting: roads, trails, bridges, equipment and water wells. In comparison to the volatile forests of Provence that seem to explode in flames each summer, the *Landes* has remained relatively quiescent, to the point where some landowners complain that their “mastery of fire” has led to a decrease in state assistance.⁶⁵

Yet the management of fire in the *Landes* remains a highly charged issue, with property owners frequently at odds with the techniques of professional firefighters. With the gradual retreat of the state in the wake of European integration and new regional policies of territorial administration that have led to a reduction in subsidies, forest owners have found themselves increasingly vulnerable to fire. Over the last two decades the frequency of fires has increased, even if their damage has not, as urbanization has encroached along the edges of

⁶⁴ Jean Cailluyer, *Regards sur l'histoire sociale des Landes* (Toulouse : Ech , 1983), 285-294 ; Dupuy, *Le pin de la discorde*, 38-39, 314-15.

⁶⁵ Christian Pinaudeau, “Echec au Feu” and Bruno Lafon, “L’Organisation de la DFCI,” *Forum europ en feux de for t*, January 31- February 2, 2002.

the forest and tourism brings more visitors to the region during the driest season of the year. In 1989 and 1990, wildfires wiped out thousands of hectares of forest, a sobering reminder of the instability of this engineered landscape.⁶⁶

New threats also loom on the horizon. Two vicious storms that struck the region in 1999 and 2009 heightening concerns over the impact of global climate change on the forests. According to forest owners, the 2009 storm destroyed an astounding 60% of the forest. The storm dealt an economic blow to the region. By leaving thousands of hectares of downed trees in its wake, it also created new risks of fire. In the words of one concerned fire fighter, the region has become a “box of matches” just waiting for a spark.⁶⁷

The recent destruction prompted a recollection of the great fires of 1949, a tragic catastrophe that also spurred efforts to “rethink” the forest.⁶⁸ Environmental groups have taken the opportunity to lobby for a more mixed forest, advocating a reforestation policy that includes oaks, birches and other species that, they argue, would prove more resistant to gales and storms than the dense monoculture pine forest. At the same time, landowners are considering whether investing in reforestation is worth the risk. Some have considered switching their investment to solar. A hectare of cleared forest leased to a solar energy producer could fetch up to 2,500 euros a year, 25 times that of forested land. In the commune of Losse, the Gabardan solar energy plant has cleared 317

⁶⁶ Dujas and Traimond, “Le maître du feu.”

⁶⁷ “La forêt landaise face à la peur du grand incendie,” *La Dépêche*, 30 June, 2009, <http://www.ladepeche.fr/article/2009/06/30/631943-La-foret-landaise-face-a-la-peur-du-grand-incendie.html>

⁶⁸ Joan Deville, *L’incendie meurtrier dans la forêt des Landes en août 1949* (Paris: Éditions des Pompiers de France, 2009).

hectares of forest to install thousands of solar panels, enough to supply 11% of the department's energy consumption. While environmentalists howl over the clear cutting of the man-made forest, its owners contemplate what it would mean to cultivate solar power rather than trees. The *Landais* are again left with difficult choices.⁶⁹

Conclusion

Today the Landes is one of the largest contiguous forests in Europe. Covering 1100 square miles, it forms a green parenthesis between the city of Bordeaux and the tourist resorts of the Atlantic coast. Its monotonous rows of maritime pines and depopulated villages offer little in the way of distraction for most travelers. Once one of the largest sources of resin and turpentine in the world, today the *Landes* is managed for pulp and timber production, supporting a 2.5 billion euro forest industry

Despite the efforts of both the French state and local landowners, the *Landes* has in many ways remained a marginal landscape. An intensely managed environment, the forest has also proven to be unstable, marred by social division, ecological degradation and economic decline. The dominant pattern of private ownership led to tensions between workers and owners, weakened collective institutions of management and helped accelerate rural depopulation. Labor strikes, fires, fluctuations in global markets and, increasingly,

⁶⁹ "Le solaire, la reconversion contestée de la forêt landaise," *Le Figaro*, 24 January, 2010, <http://www.lefigaro.fr/environnement/2009/12/07/01029-20091207ARTFIG00514-foret-landaise-le-solaire-une-reconversion-contestee-.php>.

the intensification of storms attributed to climate change have periodically disrupted forest production. European unification has further eroded the position of forest owners, as state assistance, both in the form of subsidies and disaster relief, has begun to run dry.

In charting the difficult process of “inventing” the *Landes*, this chapter points to ways that boundaries between state and local society, far from defining the conflicts surrounding forest management, were in fact produced by them. As Timothy Mitchell writes, “producing and maintaining the distinction between state and society is itself a mechanism that generates resources of power.”⁷⁰ In the *Landes*, these boundaries were constantly being invented, mobilized, policed, breached, repaired and re-invented. The civilizing narrative of forestation, which posed an enlightened state against irrational local land practices, justified the larger project of national integration and modernization. Likewise, the vision of an ignorant and avaricious state served the social and economic interests of local landowners, though they were also the direct beneficiaries of its interventionist policies. Finally, the growing threat of catastrophic fires in the 20th century led to a revision of state-society relations, creating a more supple arrangement where state expertise and local practice collaborated to address environmental risks.

Today, boundaries between state authority and local management are again being redrawn. For Pierre Darmanté, president of the *Association des communes forestières landaises*, the recent destruction of the forest from the 2009 storm left more than downed trees in its wake; it also exposed the dwindling

⁷⁰ Timothy Mitchell, “The Limits of the State: Beyond Statist Approaches and Their Critics,” *American Political Science Review* 85, no. 1 (1991): 90.

presence of the state in the form of shrinking subsidies for fire prevention and disaster relief. For him, the *Landes* represent “ a natural patrimony of not just the nation but all of Europe.”⁷¹ To abandon it now would be, for him, a great betrayal.

⁷¹ “La forêt landaise face à la peur du grand incendie”

Chapter Seven (Re)claiming the Nation: Regionalism and Conservation in the Camargue

Introduction

In 1893, a writer for the *Petit Marseilles* mused over the seductive power of the Camargue, the vast marshy delta of the Rhône River south of Arles:

Since the beginning, it seems that one has feared to cross the waters into the Camargue, civilization with its progress and its technology hanging back on the opposite shore...And yet, it is because this land has no history that it holds an incomparable interest...By its fertility as much by its strangeness it belongs to industry as to art, to the farmer as to the artist; it is the blank page that awaits but an idea.¹

Despite the efforts of state engineers to re-invent it as a granary of the nation, the Camargue of the Third Republic remained a contested landscape. Chapter Three examined the hydraulic and agricultural schemes to “improve” the delta during the Second Empire, highlighting the often-fraught relations between engineers and local landowners over the terms of environmental transformation. This chapter extends this analysis of competing claims by exploring the appropriation of the Camargue by two new groups, regionalists and conservationists. *Félibrige* regionalists found themselves drawn to a landscape

¹ Edouard Monge, “Camargue,” *Petit Marseillais*, 23 April, 1893.

that, like the *Provençal* culture they defended, had resisted the efforts of the French state to civilize it. Led by Folco de Baroncelli, a protégé of Frédéric Mistral, they discovered a *provençal* homeland in the marshes of the Camargue. They were confronted by both the enduring legacy of state engineering plans and the arrival of Paris-based conservationists who established one of France's first nature reserves along the shores of the Vaccarés Lake. Out of this inter-mingling of regionalist, conservationist and technocratic claims to the Camargue emerged a plurality of natures, all of which bore the imprint of the other.

Finding Provence in the Swamp: Félibrige regionalists and the Camargue

In May 1855 a young Frédéric Mistral found himself knee-deep in mud as he made his way across the Camargue, part of an annual procession to the village of Saintes-Maries de la Mer. A sudden rainstorm had forced the passengers of the caravan to get out and wade barefoot over the flooded road.² The voyage, his first in the Camargue, made an impression on the young poet who, just one year before, had joined with six other writers in Avignon to create the *Félibrige*, a literary movement dedicated to the revival of the *provençal* language. In his epic poem *Mireille* published four years later, Mistral chose the Camargue, that “savanna stretching beyond sight”, as the setting for the tragic end of his eponymous heroine. Fleeing her home for Saintes-Maries where she intended to pray to the Holy Virgin for assistance in her quest to marry her lover

² *The Mémoires of Frédéric Mistral*. Translated by George Wickes (New York: New Directions, 1986), 189-199.

Vincent, Mireille succumbs to the harsh elements of the marshlands, expiring on the steps on the village church.³

Represented as a hostile and desolate nature, the Camargue appeared as the final horizon of the *Provençal* world that Mistral was attempting to capture through the lyrical rendering of its own language. Yet Mistral also perceived a deep resonance of the Camargue with *provençal* culture. In his memoirs he fondly recalled his cousin Tourrette whose migrations described the seasonal geography of labor in the Camargue, from shearing sheep and threshing wheat to collecting sheaves of reeds and gathering salt. It was the rural folk of the Camargue and neighboring Crau he had in mind when he wrote the dedicatory lines in *Mireille*, “[w]e sing only for you, shepherds and people of the farms.”⁴

The great project of Mistral and the *Félibrige* movement he helped inspire was the revival of the *Provençal* language, the principle dialect (at least in the eyes of *félibrige* members) of that ancient linguistic family known collectively as the *langue d’Oc*. Still spoken in much of rural society following the French Revolution, the regional dialects of Gascon, Catalan, Languedocian and Provençal had slowly eroded through the twin influences of industrialization and the assimilationist policies of the French state throughout the 19th century.⁵

For *Félibrige* regionalists the revival of the *langue d’Oc* as both a popular and literary medium was the surest way to assert the cultural and political coherence of Provence and, by extension, all of southern France. United by a

³ Frédéric Mistral, *Mireille* (Paris: Hachette, 1884)

⁴ *The Mémoires of Frédéric Mistral*, 132-134

⁵ Andrew Roach, “Occitanie Past and Present: Southern consciousness in medieval and modern French politics,” *History Workshop Journal* 43 (1997), 1-22.

shared linguistic heritage, the constellation of the former southern provinces of Aquitaine, Languedoc and Provence was transformed into an ideological construct by regionalists eager to demonstrate its historical, cultural and even racial bonds. Deducing shared national consciousness from distant linguistic roots, Mistral and other *félibriges* fought for the recognition of a southern nation, variously referred to as the *pays d’Oc*, *Occitanie*, *Provence*, the *nation meridionale* or simply the *Midi*, within the French republican nation.⁶ For Mistral and his followers, it was through language that the soul of a people expressed and reproduced itself. “[T]he pure character of a race”, Mistral wrote, “is molded and blossoms through the language it speaks.”⁷

The focus of the *Félibrige* movement on language, particularly literary exposition, was at odds with their invocation of the countryside as the heartland of *Provençal* culture. Though they endlessly celebrated the peasant, theirs was an elite, literate and urban movement that never achieved great support among their imagined constituency.⁸ The signal contribution of Folco de Baroncelli, Joseph d’Arbaud and others was to endow the *Félibrige* vision of a united southern culture with its own mythic territory and populist ethos by investing the marshes and salt flats of the Camargue with Mistralien lyricism. Not only did its marginal nature become a theater for the staging of regional identity, it also became a site of initiation where the *Félibrige* could pass as “locals.”

⁶ The terms were and still are often synonymous, varying in degree or emphasis rather than meaning. Victor Nguyen, “Aperçus sur la conscience d’Oc autour des années 1900”, in *Régions et régionalisme en France du XVIIIe siècle à nos jours*, eds. Christian Gras et Georges Livet (Paris: Presses universitaires de France, 1977), 241-255. For a history of changing political fortunes of Occitan ‘idea’ and its various left and right expressions, see Roach, “Occitania Past and Present.”

⁷ Quoted in Frédéric Saumade, “Race régionale, identité nationale,” *Terrain* 27 (1996), 104.

⁸ Nguyen, “Aperçus sur la conscience d’Oc,” 244.

Born into an aristocratic family of Florentine origins and legitimist outlook in Aix-en-Provence, Folco de Baroncelli (1869-1943) spent his early years in Nîmes where he absorbed both the reactionary politics of his mother and grandmother, who were fiercely pro-Bourbon, and the *provençal* language courses offered at his *lycée*. Upon graduation, he quickly fell in with the leading *félibriges* of the period and became a part of Mistral's literary circle in Avignon. In 1893 Baroncelli decided to spend several weeks in the Camargue, near the village of Saintes-Maries-de-la-Mer where as a child he had often visited in the summer with his maternal grandmother.

His vacation turned into a calling. Despite being handpicked by Mistral the year before to edit the new *Félibrige* journal *Aioli*, Baroncelli began to spend more and more time at the *mas du Petit-Badon*, a small ranch owned by a family friend. It was there that he became enthralled with the culture of bulls. Before long, the young *félibrige* was far more interested in learning the ways of the *manadier* (rancher) than righting his listing journalist career or learning to manage the Châteauneuf-du-Pape vineyards of his father-in-law. By 1899 he had settled upon a modest estate near Saintes-Maries where he would spend the next several decades attempting to purify the local race of bulls and reinventing himself as the savior of local traditions.⁹

Though he had distanced himself from the literary universe centered in Avignon, Baroncelli exerted an attraction of his own and soon a number of fellow

⁹ The standard biography of Baroncelli remains Henriette Dibon, *Folco de Baroncelli* (Nîmes: Bené, 1982). For an examination of Baroncelli's exploits within the context of a cultural history of southern regionalism, see Robert Zaretsky, *Cock and Bull Stories: Folco de Baroncelli and the Invention of the Camargue* (Lincoln: University of Nebraska Press, 2004).

félibres were drawn into his orbit. The novelist, poet and eventual editor of the regionalist journal *Le Feu* Joseph d'Arbaud (1872-1950), blessed with talent but not health, fell under Baroncelli's spell. After an extended stay in 1897 convalescing he purchased a ranch of his own in the area, for which Baroncelli supplied his first herd of bulls. Jeanne de Flandrysy, another prominent *félibre*, also became an ardent supporter of Baroncelli from her literary perch in Avignon.¹⁰

Mistral was both disappointed and puzzled by his disciple's choice of becoming a professional bull-breeder. The fate of his journal *Aiòli*, which had its operations housed on the second floor of the Baroncelli family mansion in Avignon, hinged partly on the flickering interest of its editor who was spending more time in the swamp than in the office. As the problems of the journal deepened, Mistral could not help but partially blame his wayward student. "The poor man", he complained, "has lost his head over his bulls!"¹¹ However the leap from *Félibrige* journal editor to bull-breeder was not as great as Mistral assumed. Baroncelli never strayed from Mistral's central beliefs about the need to at once purify and revive *provençal* culture. He simply chose another medium.

Naturalizing the Occitan nation: Taureau, gardian, and provençal identity

Occitan race, as long as our young men
Hold to their faith in the bull

¹⁰ Dibon, *Folco de Baroncelli*, 40-73.

¹¹ Quoted in Dibon, *Folco de Baroncelli*, 78. Mistral's first attempt at a *provençal*-language journal, *Aiòli* ran from 1891 to 1900.

I promise you that I will be your charm and your shield
The incarnation of your faith, just as I was Apis, I will become Provence.

Folco de Baroncelli, "Lou
Bioù"

In both words and deeds, Baroncelli and his followers reinvented the marshlands of the lower Camargue as a mythic homeland that, through its sheer harshness and isolation, promised to preserve the last vestiges of regional culture. Their efforts focused on the transformation of two native figures, the *taureau* and the *gardian*, into living symbols of *provençal* culture. They became, in the words of one scholar, "emblèmes du terroir".¹² By mythologizing the bull as a sacred totem of Occitanie and the herdsman as its knightly defender, Baroncelli and his friends transformed the marshlands, long devalued by succeeding generations of engineers, investors and farmers, into a stage for the performance of a *provençal* identity.

The *camarguais* bull was on the retreat in the nineteenth century. Their habitat, the low-lying marshlands, had been under assault since mid-century by sea and river dikes, the expansion of salt refineries and growing agricultural runoff from vineyards. Smallish and often under-nourished, the herds were not well suited for domestic labor, which had been largely taken over by Poitou mules. Engineers were not fond the creatures. They trampled dikes and embankments and collapsed irrigation and drainage ditches in their pursuit of

¹² Saumade, "Race régionale, identité nationale," 106.

water and green pasture. Farmers, too, viewed the bulls as a nuisance. They would ravage fields if given the chance and were reputed to have wrecked henhouses, killed dogs and attacked people. While the introduction of barbed wire following WWI helped ease tensions, restricting the movement of herds, the bull had many enemies in the Camargue.¹³

For Baroncelli, the Camargue bull was nothing less than a cultural treasure. He believed they were the direct descendants of an ancient lineage that had survived the Ice Age and wandered the wilds of Roman Gaul before sequestering itself in the Rhône delta. Protected from the vagaries of history, the Camargue bull remained in a pristine state until the encroachments of the modern world in the nineteenth century. Not only did they face diminishing habitat as marshlands were drained for agricultural expansion, their racial purity had become tainted through the practice of crossbreeding. Following the introduction of Spanish-style *corridas* or bull-fights to France in 1853, the demand for a larger and more aggressive bull led some ranchers to begin crossing Spanish bulls with their smaller cousins.¹⁴ For Baroncelli, the bull became a symbol of the erosion of regional culture and he dedicated himself to purifying the breed with the same fervent regionalist spirit as Mistral applied to his great dictionary of the langue d'oc, *Lou trésor dóu Felibrige*. "It seemed to

¹³ Pierre Heurteaux, "Le taureau de Camargue, élément d'un écosystème," in *L'homme et le taureau en Provence et Languedoc* (Grenoble: Editions Glénat, 1990); ADBR 7M 35, Report of the Arles Chamber of Agriculture (1853); Jean-Marcellin Pader, *La Camargue, son présent, son avenir*. (Marseille: Pesshailan, 1890), 62-64.

¹⁴ Frédéric Saumade, *Les Tauromachies Européennes: la forme et l'histoire, une approche anthropologique* (Paris : Comité des Travaux Historiques et Scientifiques, 1998), 149-61.

me”, wrote Baroncelli, “ that the passion for bulls was the surest lever through which one could raise up our people and revive their national consciousness.”¹⁵

If the bull’s traditional habitat was the lower Camargue, its influence extended far beyond the delta. In towns and villages throughout lower Languedoc and Provence, various *jeux taurins* (literally bull games) were an important expression of popular culture in the early nineteenth century.¹⁶ Farm hands would practice plucking items (feathers, bits of ribbon, even sausages) off the horns of bulls that had been un-harnessed after a long day of work in the fields. The most notorious of these *jeux* was something called the *taureau à la corde*. A bull, held by a long rope attached to its horns, was led through the streets of the village and subjected to a flurry of incitements, from taunting to stabbing, after which it was slaughtered and its meat sold in the local *boucherie*.¹⁷ By mid-century a more controlled form of these *jeux* had begun to appear in the form of the *course libre*. Taking place within a defined perimeter, more often than not simply over-turned wagons, bulls and men would confront one another, the *raseteurs* attempting to snatch ribbons (*cocardes*) attached to the bulls’ horns that represented varying amounts of money donated by local elites.¹⁸ Inverting the dominant Spanish tradition of the *corrida* where the bull is typically killed, the French tradition of the *course* celebrated the bull as hero, placing it on equal standing as that of its human counterparts.

¹⁵ Quoted in Henriette Dibon, *Folco de Baroncelli* (Nîmes: Bené, 1982), 68.

¹⁶ Saumade, “Race régionale, identité nationale.”

¹⁷ Saumade, *Les Tauromachies Européennes*, 149-161

¹⁸ *ibid.* For more on the evolution of the *course*, see Evelyne Duret, “La course camarguaise, aspects historiques,” in *L’homme et le taureau en Provence et Languedoc* (Grenoble: Editions Glénat, 1990), 61-79.

The spread of the Spanish-style *corrida* in the second half of the nineteenth century had turned bull-fighting into a political, as well as popular, spectacle. Though *jeux taurins*, viewed as ripe occasions for disorder and violence, had been under sporadic attack from the central government since the French Revolution, local officials had tended to tolerate them as popular expressions of Midi culture.¹⁹ The growing popularity of Spanish *corridas*, however, brought the hammer of liberal opinion down on what it perceived as a barbaric and cruel spectacle. Bolstered by the *loi Grammont* of 1850, which attempted to ban the abuse of domestic animals, the *Société Protectrice des Animaux* began a vigorous campaign to put an end to bull-fights.²⁰ Tensions over the legality of bull-fighting reached a boiling point in 1894 when the Minister of Interior, catching wind of a *corrida* planned in the ancient Roman amphitheater of Nîmes that summer, instructed his prefects to ban all bull-fighting in their towns and villages. When local organizers decided to hold a *corrida* anyway, it set off a firestorm of recriminations between the national and regional press. While Paris papers denounced the “bull-fanciers” of the South, *félibrige* regionalists wasted no time in denouncing the repression of local liberties and using it as an occasion to press its federalist claims. Frédéric Mistral, though he had a tepid regard for the *corrida*, appeared at a second bull-fight held the following fall in Nîmes and was greeted with wild applause by the crowd.²¹

¹⁹ Maurice Agulhon, “Le sang des bêtes,” in *Histoire vagabonde* (Paris: Gallimard, 1988), 275.

²⁰ *Ibid.*, 275-6

²¹ Alphonse Roche, *Provençal Regionalism* (Evanston: Northwestern University Press, 1954), 156-7

The *corrida* may have helped politicize bulls but it was the local *course* that transformed them into affective emblems of the regionalist Camargue. Given the distinctive nature of the *course*, where it is the bull rather than human participant that is honored and celebrated, the origins of the individual bull mattered. Ranchers in the lower Camargue supplied surrounding regions with prized specimens for their *courses*. They also organized the ritual *abrivado*, the running of the bulls to the arena, a spectacle in itself.²²

Baroncelli embraced the work of rancher and bull breeder, regarding it as an essential step in the revitalization of regional culture. His herd, known as *Santenco*, became well-known throughout the region for producing a steady source of feisty bulls for the local *courses*. By far the most celebrated was *Prouvènço*, a young bull that burst onto the local scene in 1902. Considered the flower of Baroncelli's herd, the two year-old destroyed the makeshift barricades of his first *course* at Marsillargues, "sowing panic among the *raseteurs*", according to one local paper. The following year he sent several *raseteurs* to the hospital. When the celebrated *toréador* le Pouly, whose own son had been wounded at the spectacle, offered a 1000 francs for the young bull, Baroncelli declined, declaring that the bull had become too precious a symbol:

From the cataract that is carrying away everything in its path, we have, for our part, preserved the race of *Camarguais* bull of which it incarnates its beauty and valor. Its beauty is the emblem of all the ideals towards which the Seven-pointed Star [the *Félibrige* movement] leads us. Its valor is the image of our faith, our stubbornness, our iron will, our heroic defense of the Midi, for the victory of our language. This bull will be called *Prouvènço*.

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²² Joseph d'Arbaud, "La vie en Camargue," *Le Feu* (1 juin 1919).

²³ Quoted in Jeanne de Flandreysy, *La Mort d'un Taureau: Prouvènço* (Paris: Librairie Alphonse Lemerre, 1911), 14. The bull became a celebrity throughout the Midi until its untimely death in

Figure 13. Prouvènço, celebrated resident of the Camargue.



Regionalists enlisted more than bulls in their attempts to naturalize *provençal* identity. In the eyes of Baroncelli and others, the *gardian*, traditional ranch hand of the Camargue, became the archetypal *provençal*. He was, wrote Joseph D'Arbaud in 1919, the purest form of the *provençal* peasant, “ a racial type that the centuries have preserved in the solitude [of the Camargue], a testament of the first human conquests and who, leading his horse over the *sansouire*, remains the armed soldier of *Provençal* culture.”²⁴ The traditional tasks of transhumance, branding (the *ferrade*), the castration of bulls (*bistournage*), and the procession to animals to the arenas (*abrivado*) became charged with cultural significance as expressions of the unique bond between local society and environment.

1909 when it was attacked by several younger bulls in what the papers would refer to as a “combat d'amour”.

²⁴ Joseph d'Arbaud, “La vie en Camargue.”

For urbane regionalists in search of roots, the *gardian* represented not only a body of tradition but also an identity and a way of being that was intimately tuned to the local environment. Their equestrian skills and deep knowledge of the local habitat made them exemplary figures of “local genius.” The *gardian*, “a little wild like his *bouvino* or bull”, knew the territory as only a native could.²⁵ Unlike the agriculturalists, engineers and investors who sought to subjugate and rationalize it, the *gardian* mastered the Camargue by adapting to its harsh environment. As Jeanne de Flandreysy put it, “in order to truly understand the character of the Camargue one must live the primitive life of its inhabitants.”²⁶

The *Nacioun gardiano*, founded by Baroncelli in 1904, was instrumental in popularizing the rituals, costumes and skills of the *gardian*.²⁷ Outfitted in carefully designed costumes and bearing the traditional instrument of the *gardian*, the iron trident, members of the *Nacioun gardiano* became a familiar sight in the Camargue and surrounding towns. The *abrivado* became a great pageantry of costumes, as *gardians* led the bulls to the arenas.²⁸ For the various *fêtes provençales* held throughout the region, Baroncelli and other members developed a series of equestrian games that were intended to both demonstrate the skill of the sharply dressed riders and link them to a noble past.²⁹ The *Nacioun* even made an appearance at the Colonial Exposition of 1922 in Marseille where they were celebrated as “primitive knights, tireless horsemen

²⁵ R. D’Elly, *La Camargue gardiane* (Paris: Michel Delaveau, 1938), 76.

²⁶ Mediathèque d’Arles (hereafter MA), Fonds Fassin, Jeanne de Flandreysy, *Les Annales politiques et littéraires*, 19 March 1911.

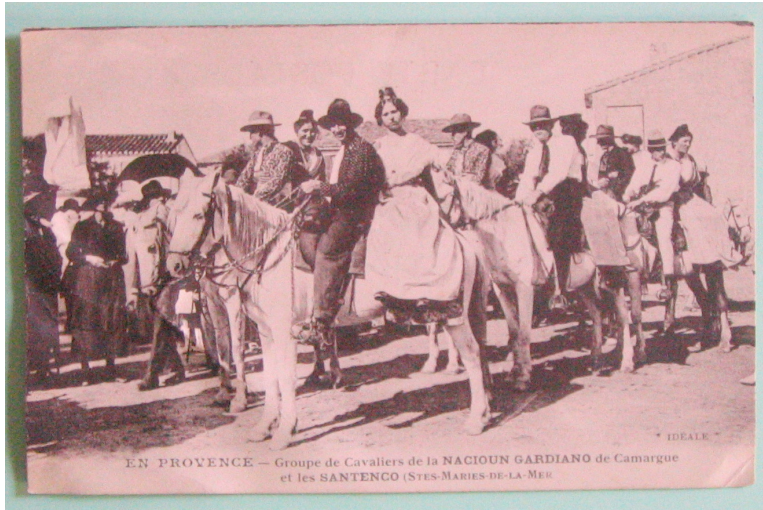
²⁷ Zaretsky, *Cock and Bull Stories*, 97-98.

²⁸ Dibon, *Folco de Baroncelli*, 250-1; Marie-France Gueusquin, *La Provence arlésienne, traditions et avatars* (Actes Sud, 2000), 53-56

²⁹ Alphonse Arnaud and Henry Aubanel, *La Nacioun Gardiano* (1970)

who herd and tame the black and terrible beasts across the endless pasturage of the Camargue...”³⁰

Figure 14. *Nacioun Gardiano* at play



The effect of these various spectacles was to weave the Camargue into the imagined geography of Occitan culture that extended well-beyond the Rhône delta. As one local paper declared in 1929, “[t]he Camargue is everywhere the love of taurine traditions has been preserved, where one encounters the same people, the same language, above all where the ‘gardian’, at once ‘pasteur’ and ‘guerrier’ is present.”³¹ It echoed the sentiments of Jean de Flandreysy some 18 years before. For her, the Camargue was nothing less than the territorial

³⁰ “Les gardians camarguais à l’Exposition coloniale de Marseille,” *Petit Marseillais* 20 August 1922.

³¹ Archives du Palais du Roure (hereafter APR), Fonds Baroncelli, “Camargue,” *Provence et Languedoc* 19 May 1929.

expression of the expansive *provençal* soul: “[The Camargue] holds in it all the vigor, all the passion, all the anger...and all the harmonies of the great provençal race.”³²

The Return of the Engineer: Postwar visions of a modern Camargue

In their quest to colonize the Camargue as a *provençal* homeland, regionalists conveniently elided the long history of other claims to the delta. The engineering schemes of the nineteenth century that had faltered in the face of agricultural and industrial protests re-appeared in the years following World War One. With agricultural production lagging and Marseille rapidly expanding, the state took a renewed interest in the region. Engineers dusted off their predecessors plans for dramatically expanding the productive capacity of the delta. According to the General Council of the Bouches-des-Rhône, “it would be almost criminal to fail to augment, as much as possible after the war, the production of cultivated lands as well as to leave lands sterile that, like those of the Camargue, could be, with modest expenditures, converted into fertile soils.”³³

Renewed plans to transform the Camargue initially came from the salt refining industry. In 1908, the company *Alais, Frogès et Camargue* had revived ambitions for a large-scale project of drainage in a bid to resolve their ongoing disputes with agriculturists.³⁴ Owner of the Vaccarés as well as the salt works

³² MA, Fonds Fassin, Jean de Flandreysy, *Les Annales politiques et littéraires* (19 mars 1911)

³³ ADBR SH 90, Deliberation of General Council of the Bouches-du-Rhône, 14 May 1918.

³⁴ A leader in the chemical industry since its founding by Henri Merle in 1853-4, the company *Alais, Frogès et Camargue*, also known as *Péchiney*, had long depended on its facilities at Salin-de-Giraud to supply its factory in Salindres (Gard) with the natural salts necessary for the production of sodium carbonate, aluminum and other industrial products. By 1940 Salin-de-

and factory town of *Salin-de-Giraud* in the southeast corner of the Camargue, the company was increasingly concerned over the increase in irrigation run-off from agricultural, particularly viticulture, operations in the upper Camargue. Faced with the growing threat to its salt flats from fresh water drainage, the company had proposed the creation of an artificial pumping system to prevent the flooding of the Vaccarés. The plan wilted in the face of energetic protests from landowners who contended that they would be unfairly burdened with the majority of costs. Shelved after the outbreak of war in 1914, the project was resuscitated in 1918 as officials turned their attention to the agricultural recovery of the nation. Yet soaring material costs in the immediate postwar era quickly sapped enthusiasm for any costly venture in the Camargue.³⁵

A new plan emerged in 1927 after the Minister of Agriculture, in a meeting with delegates from the Bouches-du-Rhône, promised credits from the upcoming budget to improve the agricultural output of the delta. Departmental officials quickly embraced the idea of transforming the Camargue (again!) into a national granary. Members of the General Council enthused over the potential gains for both the department and the nation. One member optimistically proclaimed that by improving 60,000 hectares “at the moment totally unproductive” the project would transform the Camargue “into the garden of France.” In the aftermath of the war, the improvement of the Camargue was seen by some as a moral, as well as economic, duty: “It would be almost criminal to not augment, after the war, in every possible way, the productivity of present agricultural lands and to

Giraud was the largest salt producer in France. C.J. Gignoux, *Histoire d'une entreprise française* (Paris: Hachette, 1955), 9-21, 161.

³⁵ Picon, *L'Espace et le temps en Camargue*, 101-2.

not make every effort to improve sterile lands which, like those of the Camargue, could become...converted into fields of great fertility.”³⁶

Over the next several months, word of the project spread. It was particularly well-received in Arles where municipal council members, eager to promote agricultural development in the delta, turned to the former chief engineer of the department, M. Denizet, for a detailed report on the feasibility of the project.³⁷ Drawing on the long legacy of engineering and industry plans to alter the hydrology of the delta, Denizet envisioned an integrated system of irrigation, drainage and transport infrastructure that promised to bring 50,000 hectares of marsh and pasture under cultivation. He held fast to the belief that the key to unlocking the productive potential of the Camargue lay in the mastery of the Vaccarés. Ensuring that its waters remained below sea level through an elaborate pumping system would enable engineers to employ the entire basin as a drainage reservoir and eliminate the major obstacle to agricultural expansion, inconsistent drainage. The core of his plan called for the a system of pumping stations that would channel excess water in the Vaccarés through a seven kilometer canal that emptied into the sea. When paired with the construction of secondary irrigation works, roads, housing and other infrastructure, Denizet estimated that the project would produce 70 million francs in annual revenue and

³⁶ ADBR SH 90, Deliberation of General Council of the Bouches-du-Rhône, 14 and 16 May 1927

³⁷ AMA D22, Deliberations of the municipal council of Arles, 11 September 1927. Paul Allard has argued that the increasingly urban and middle-class dominance of republican politics in Arles since the late 19th century led to the marginalization of rural interests and a decline in enthusiasm for investment projects in the Camargue, marking what he calls a “rupture” between Arles and its “terroir”. This does not seem evident in the case of Denizet’s project. Allard, *Arles et ses terroirs*, 165-66.

attract a population of at least 10,000 agricultural laborers and new property owners.³⁸

Denizet's plan demonstrated how little the hydraulic ambitions of the *Ponts-et-Chaussées* had changed since the mid-nineteenth century. The Camargue remained a landscape of potential, a *terre d'avenir* that could be transformed into a productive oasis given the right formula of capital, technology and expertise. Steeped in the language of the public good, the elegant schemes of engineers rarely took into serious consideration the complicated local claims to the delta. Consistent with his predecessors, Denizet showed scant regard for the high costs of the project (estimated at thirty million francs), assuming that local landowners and foreign investors, suitably impressed with the project, would willingly shoulder the brunt of the costs.³⁹

Proponents of the new project quickly discovered that the Camargue would not be so easily tamed. Public reaction was overwhelmingly negative. Local landowners in the upper Camargue balked at shouldering the majority of costs for a project that few felt could deliver the revenues predicted by engineers. Devoted mainly to viticulture since the late nineteenth century, they had achieved modest success by forming collective associations to help pay for pumping stations and irrigation canals. While few denied the benefits of expanding the productive capacity of the delta, they were hardly willing to foot the bill themselves.⁴⁰

³⁸ ADBR SH 90, Denizet, "Projet de l'amélioration de la Camargue." (1927)

³⁹ Ibid.

⁴⁰ Picon, *L'Espace et le temps en Camargue*, 102-108.

The villagers of Saintes-Maries-de-la-Mer in the lower Camargue were even more skeptical of the project. Surrounded by marshlands and lagoons, the commune had little arable land and many locals continued to depend on the Vaccarés region as an economic resource. Herdsmen and ranchers depended on its marshlands and scrub for pasturing their *manades* of bulls while fishermen still plied the waters of the inland lagoons. Esprit Pioch, the town's fiery socialist mayor, had been the lone dissenter at the General Council meeting in 1927 that proposed a new improvement scheme for the Camargue. A massive engineering project to transform the Vaccarés into a waste bin for irrigation waters threatened the very livelihood of local inhabitants. Pioch thundered against a proposal that was "in effect, a question of life or death" for the town.⁴¹

Landowners and villagers were not the only opponents to Denizet's plan. Shortly after the announcement of the new project, as if on cue, the mayor of Arles received an petition that condemned any intervention into the Camargue. Most likely penned by Baroncelli himself, the petition, claiming to represent a "vast movement of opinion in the Midi", called for the protection of the Vaccarés and surrounding marsh lands from the state engineers and allied groups who, if they could, "would cultivate the sea itself".⁴² In the "empty" reaches of the southern Camargue, engineers had unwittingly stumbled on the Felibrige holy land. Yet regionalists were not alone in mobilizing public opinion against Denizet's project. They would find a formidable ally in another newcomer to the Camargue, the *Réserve zoologique et botanique de Camargue*. The alliance

⁴¹ ADBR SH 90, Deliberations of General Council of the Bouches-du-Rhône, 16 may 1927.

⁴² AMA O172, "Protestation contre le projet d'assèchement de Vaccarés." (1927)

between naturalists and regionalists, though on occasion strained, would prove to be a powerful obstacle to the designs of engineers and agriculturists in the Camargue.

Naturalists in the Marshes: The establishment of the Réserve zoologique et botanique de Camargue

At the same time engineers and officials in Arles and Marseilles were busy planning the agricultural conquest of the Camargue, members of the *Société nationale d'Acclimatation* arrived in the delta intent on preserving the Vaccarés in the name not of *provençal* identity but modern notions of conservation. Founded in 1854 by Isidore Geoffroy-Saint-Hilaire, the association had initially devoted itself to researching the practical applications of forced adaptation of “acclimitization”, a project that accorded well the imperial ambitions of the Second Empire and early Third Republic. By the early twentieth century, however, it had largely abandoned theories of acclimatization for modern conservation. Under the leadership of Edmond Perrier, director of the *Muséum national d'histoire naturelle*, the SNA became the leading conservationist organization in France. It helped establish the *Ligue pour la protection des oiseaux* in 1912, the ornithological reserve of *Sept Isles* off the coast of Brittany in 1913 and sponsored the first international congress on the “protection of nature” in 1923.⁴³

⁴³ For more on the early years of the SNA and its contribution to French imperial discourse, see Michael Osborne, *Nature, the exotic, and the science of French colonialism*. (Bloomington: Indiana University Press, 1994).

The SNA's interest in the Camargue dated back to before the war, considering it a possible site for a migratory bird sanctuary. It was not until 1927 that dreams of nature reserve became reality when Emile Boyaud, director of the company *Alais, Froges et Camargue*, presented the president of the SNA, Louis Mangin, an offer he couldn't refuse.⁴⁴ Boyaud proposed to lease the entire Vaccarés region to the SNA on the condition that it practice a strict policy of non-intervention. Mangin and the SNA quickly agreed, drafting a mandate for the Reserve that promised to "maintain these lands in their natural and wild state, to use them only for the purposes of the study of nature and natural history and to guarantee the complete protection of native flora and fauna."⁴⁵ The cession of the Vaccarés to the SNA was a calculated move on the part of *Alais, Froges et Camargue* to resolve the persistent disputes over water rights that had raged for nearly 80 years between *saliniers* and agriculturalists in the Camargue. By ceding control of the region to the SNA, the company hoped to create a neutral buffer zone between the two.⁴⁶

The object of engineering blueprints, bitter local disputes and regionalist fantasies, the Vaccarés was re-invented yet again under the administration of the new Reserve, this time as a zone of nature conservation. According to one member of its board, the goal of the Reserve was to allow nature to "develop according to its own evolutionary laws, sheltered from the actions of men."⁴⁷ Its main scientific pursuit, directed by the well-known botanist Georges Tallon, was

⁴⁴ *Actes de la Réserve de Camargue* 1 March 1930.

⁴⁵ Quoted in Picon, *L'Espace et le temps en Camargue*, 101-102.

⁴⁶ *Ibid.*

⁴⁷ C. Bressou, preface, in Tony Burnand and Joseph Oberthür, *Toute la Camargue* (Paris: Editions de la Bonne Idée, 1939), ix.

the observation and study of the birdlife that thrived in the Vaccarés brackish waters, marshlands and scrub. Oyster catchers, avocets, egrets, herons, bitterns, black-headed gulls and the “pearl” of the Camargue, the pink flamingo, were among the species that drew naturalists and ornithologists to backwaters of the Rhône delta.⁴⁸

The policy of non-intervention extended to local inhabitants. By redefining the Vaccarés as natural sanctuary, the Reserve effectively removed it from the local economy. Traditional practices such as hunting and trapping, the collection of wood, reeds, and birds’ eggs and the pasturage of bulls, horses and sheep were banned by Reserve officials.⁴⁹ While guards did their best to patrol the region and fine trespassers, poaching became a perennial problem. During the economic crisis in the 1930s the Reserve experienced a “veritable offensive of poachers.”⁵⁰ As the director of the Reserve would later admit, “in a region so attached to its liberties, the acceptance of a regime of restricted access could not be obtained right away.”⁵¹

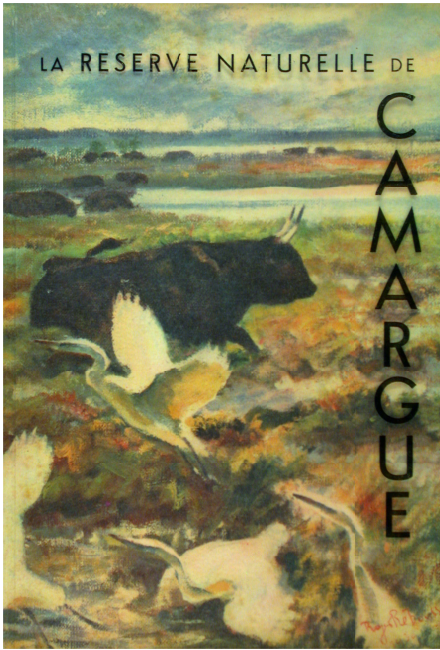
⁴⁸ Despite their conservationist mandate, Reserve members were not adverse to manipulating the environment for their own ends. For instance, after acquiring an additional parcel of land around a former salt refinery in 1930, they decided to dig an irrigation canal from the Rhône in the order to desalinate the land and create a habitat more attractive to migratory birds. *Actes de la Réserve de Camargue*, October 1930, April 1931.

⁴⁹ The one exception to the suppression of local usage were fishing rights on the Vaccarés, which were leased to help cover the operating costs of the *Réserve*. *Actes de la Réserve de Camargue*, April 1931.

⁵⁰ *Actes de la Réserve de Camargue* 17 (April 1934)

⁵¹ C. Bressou, preface, in Tony Burnand and Joseph Oberthür, *Toute la Camargue*, viii.

Figure 15: First issue of the Reserve bulletin



Implicated in the complex local politics of water and resources from its inception, the Reserve also had to confront regionalist claims over the Camargue. What they protected as a natural habitat for migratory birds was also a sacred landscape for Baroncelli and his *Félibrige* circle. From the perspective of Reserve members, the presence of *taureaux* and *gardians*, no less than poachers or stray sheep, posed a threat to the sanctuary.

This is not to say that SNA members were hostile to the claims of regionalists over the Camargue, at least on a symbolic level. The director of the Reserve, M.G. Tallon was himself a Southerner who appeared genuinely moved by the *Félibrige* attachment to the Vaccarés. In his overview of the Reserve,

published in 1930, Tallon easily slipped into the register of sublime nature so dear to the *félibrige*:

This primitive nature, populated by an unusual vegetation, animated by pretty birds, these unstable shores where earth, sea and lagoon have not yet established their mutual domains, these immense fields of deserted sand, all this returns us the earliest ages of the world. Should we not prevent its definitive destruction? Should we not jealously preserve a land which has given birth to so many mysterious legends, where an ardent and picturesque traditionalism flourishes, to which we owe some of our greatest literary feats, which, finally, possesses one of the richest folklores of our country?⁵²

A member of the Reserve board, Professor Bourdell, echoed these sentiments at a conference celebrating the centennial anniversary of Mistral: “The Reserve of the Camargue is located in the heart of Provence, country of strong and ancient traditions which one must respect and maintain in the same way as its flora and fauna, if one desires preserve the country in its true appearance.”⁵³

Baroncelli was ambivalent about the new Reserve. While he appeared to be on cordial terms with SNA members there, he was not always happy with their policies, especially regarding access to pasturage. Not only did the banning of pasturage disrupt the local economy of bull-rearing, which depended on open access to leased lands, it also threatened to alienate regionalists from their “homeland.” Baroncelli commended Reserve officials for their efforts to protect the Vaccarés but chastised them for failing to appreciate its deep cultural significance, particularly for the local inhabitants of Saintes-Maries de la Mer:

⁵² M. G. Tallon, *La Réserve Zoologique et Botanique de Camargue* (Paris, 1930), 16

⁵³ *Actes de la Réserve de Camargue* 3 (October 1930)

The winged race, with its warbling and its colorful plumage, enlivens, of course, the magnificent surroundings of the Camargue, and yet, if one examines the true *tableau* of life and spirit, it seems that birds belong themselves to this landscape of azure and mirages in the midst of which swarm the life of wild bulls and horses and...herdsmen....[T]his Reserve only achieves a part of the Mistralian dream and our aspirations, since it surrounds Saintes-Maries-de-la-Mer with an untouchable desert where for centuries upon centuries wild bulls and horses wandered freely...and where the *Saintins* and only the *Saintins* hunted and fished...⁵⁴

As for the villagers of Saintes-Maries-de-la-Mer themselves, the establishment of the Reserve did not bring a radical departure from the policies of former landlords of the Vaccarés. There had been an on-going dispute over the extent of local usage rights in the region ever since it passed into private ownership at the beginning of the nineteenth century. In the early twentieth century, as claims over the Vaccarés multiplied, community leaders adopted a more proactive campaign sympathetic to regionalist sentiments. At a speech in 1928 the mayor of Saintes-Maries-de-la-Mer, Esprit Pioch, gestured back to a golden age when the Vaccarés was an open communal resource, where the rights of grazing, fishing and hunting were freely exercised, to point out the injustices of the present which saw its people “betrayed by the venality of false elites.”⁵⁵ The Reserve was simply the latest in a long line of usurpers.⁵⁶

Rage Against the Machine: The failure of the Denizet project

⁵⁴ *Aioli*, 21 March 1931, quoted in D'Elly, *La Camargue gardiane*, 137.

⁵⁵ AMA 16S 8 Esprit Pioch, “Le parc national de Camargue.” (1928-9?)

⁵⁶ *ibid.*

Despite their differences, naturalists, regionalists and many locals agreed on the basic principle of protecting the Camargue from development. In the immediate years following Denizet's proposal, the various claimants to the Camargue converged in their call for the creation of national park. It was a central topic at the 1928 *Congrès Rhodanien*, where an assorted group of regionalist literati, *tauromachie* aficionados and local political figures gathered together at Avignon under the banner of a *Confédération méridionale* led by Baroncelli and Joseph d'Arbaud.⁵⁷ Henrietta Dibon, a long-time friend and eventual biographer of Baroncelli, urged her fellow Southerners to lobby for the creation of a national park before the engineers, "armed with their facts and figures", ruined the Camargue by opening the door to industry and agricultural development:

[T]he pastures will disappear and with them will of the bulls and the taurine sport of the arenas...No more beavers, no more reed cabins, no more Egyptian flamingos sowing their thousand rosy petals on the periwinkle waters of the Vaccarés...In their place, everywhere vines, vegetables, fields; factories will darken the white homes of Saintes-Maries and the gilded steeple of the church, and the herds of black bulls and white mares and the herdsmen will bow their heads passing for the last time over the Sylveréal bridge on their route of exile...How do we respond to the engineers who, figures in hand, show us the necessity and utility of their plans? All we can do is demand the preservation of this region as a national park.⁵⁸

The proposal to implant a national park in the Camargue was made more palatable to regionalists often at odds with the policies of the French state through a self-conscious genealogy that traced the idea back to the great master himself. It had been, according to one *félibrige*, "the great thought of Mistral,

⁵⁷ APR, Fonds Baroncelli, "Nouvelles provençales," *La Provence*, 8 July, 1928

⁵⁸ APR, Fonds Baroncelli, Henriette Dibon, "Le Vaccarès et le Parc National de Camargue," *Provence et Languedoc*, 4 November, 1928.

carefully tended since his death by his most loyal disciples.”⁵⁹ Baroncelli claimed that Mistral entrusted him with project for a park that would serve as a open-air complement to his folkloric museum in Arles, the *musée du Félibrige*.⁶⁰

Esprit Pioch echoed these regionalist sentiments. For him, a national park would return the Camargue to its only true heirs, the “public.” Local inhabitants, regionalists and naturalists had to united in common purpose to defeat the ambitions of engineers and developers:

Let an ignorant administration, believing they represent farmers, try to drain, transform and plant with crops and hypothetical vineyards the sanctuary of flamingos, bulls, horses; right way united herdsmen, poets and fishermen reply: “Very well! Our resources are equal to yours. They require less effort to exploit....From the Vaccarés to the sea, let all these ancient communal lands return to the public...Now is the time for a National Park of the Camargue!”⁶¹

Proponents for a national park went as far as Paris to lobby their cause. In 1931, Baroncelli led a group that included Pioch and the mayors of Aubagne and Salon to meet with Albert Sarraut, Radical cabinet minister at the time as well as *Félibrige* sympathizer. Baroncelli urged Sarraut to use the recent law on the protection of historical monuments and landscapes to classify the Camargue a national park and put an end to the “sacrilegious” reclamation projects in the Camargue which threatened to “deprive France of one of its greatest tourist sites by destroying a landscape unique in Europe.”⁶²

⁵⁹ *Le Feu* July 1928

⁶⁰ D'Elly, *La Camargue gardiane*, 137.

⁶¹ AMA 16S 8, Esprit Pioch, “Le parc national de Camargue.”

⁶² Quoted in Mirèio Bosqui, “Lou Marques Folco de Baroncelli-Javon e lou pargue Naciounau Camarguen,” in *L'Astrado* 29 (1994), 70-71.

Members of the Reserve and SNA echoed these calls for a national park. C. Bressou, secretary-general of the SNA, it would secure for the nation a precious natural wonder, “ a *patrimoine* that we are responsible for on behalf of future generations; [it] belong[s] to everyone and must not be destroyed or mutilated for the benefit of a few.”⁶³

Though they failed in their efforts to create a national park, this motley assortment of regionalists, naturals and locals re-shaped, at least in part, development projects in the Camargue. Denizet himself had remained optimistic in the face of wide-spread criticism, counting on an aggressive propaganda campaign to win over recalcitrant locals.⁶⁴ Yet, in the face of both local resistance and the on-set of economic depression, engineers and department officials scaled back their ambitions. In lieu of a costly system of pumping stations along the Vaccarés, engineers decided to implement a more modest and far less costly project: the establishment of a “passive” drainage system. Most engineers agreed that the problem of flooding in the Vaccarés, while due in part to an increase in irrigation run-off from the upper Camargue, was also a consequence of the siltation of channels linking the Vaccarés with the lower lagoons and sea. Given the exceedingly flat topography of the region, natural drainage in the Vaccarés was largely wind-powered. When the powerful Mistral wind blew down from the north, it created a current that pushed water through channels into the lower lagoons and, from there, through sluiceways in the sea

⁶³ C. Bressou, preface, in Tony Burnand and Joseph Oberthür, *Toute la Camargue*, viii.

⁶⁴ ADBR 1M 1000, Denizet, “Mémoire.” (1930)

wall and into the Mediterranean.⁶⁵ The system had its weaknesses, stemming primarily from the fact that the channels required constant supervision: locks had to be opened and closed according to water level and wind. Yet this low-tech solution to the long-standing problem of water levels in the Vaccarés proved effective. Despite heavy rains that struck the region in 1935 the level of the Vaccarés did not rise dramatically. A critic of Denizet's ambitious reclamation plan, the Reserve supported the new direction of engineers and hoped that it offered a compromise in a region so little accustomed to it. The "blackest cloud that hung over the Camargue" seemed to have finally disappeared.⁶⁶

Conclusion

Today the Camargue is associated with "wild" nature. Its wetlands, now classed as a UNESCO world biosphere reserve, provide habitat for large numbers of migratory birds as well as two quasi-native species, the *Camarguais* bull and horse, that roam its lower reaches. Over a million tourists are drawn to its austere beauty each year. Yet underneath the veneer of a natural sanctuary lies a region fractured and refashioned through succeeding physical and symbolic interventions of engineers, agricultural reformers, industrialists, regionalists, naturalists and locals.

⁶⁵ ADBR SH 90, Pottier report (1934); Minister of Agriculture to prefect of Bouches-du-Rhône, 12 December 1935.

⁶⁶ *Actes de la Réserve de Camargue* 5 (1931) and 21 (1937).

It is difficult to determine where culture ends and nature begins. Encircled by dikes and levies, the Camargue is fed fresh water through a complex network of irrigation channels that supply the vast rice fields, the product of postwar loans, that currently cover about 1/4 of the region. To the southeast, along the coast, salt water is piped in to feed the appetite of the sprawling *Salin-de-Giraud*, one of the largest salt works in the world. Between these two engineered and largely incompatible environments lies the Vaccarés lake, protected by the *Réserve Nationale de Camargue*. In the margins of these distinct zones graze the carefully maintained herds of bulls that supply the local *corridas* and *courses camarguaises* with their bovine combatants and, since 1997, restaurants and consumers with AOC-designated beef. Since 1970, the entire delta has been managed as a *Parc Naturel Régional*, envisioned as a *coupure verte* or “green space” between the industrial zone of Fos-sur-Mer and Marseille to the east and the heavily developed coastline of Languedoc-Roussillon to the west. The park’s mandate to balance economic development with cultural preservation and environmental conservation underscores the diversity of claims to the modern Camargue and its resources.

Despite, or perhaps because of, its intensely manipulated nature, there was bewilderment and anger when, in 1993, the Rhône broke through its massive dikes and inundated the region. Protected for so long against the incursions of river and sea, people had forgotten the historic vulnerability of the region to flooding. As is often the case with natural catastrophes, the floods revealed deep social fissures in the Camargue, highlighting conflicts between

“protectors” and “producers” and their respective claims to the region. Yet they also underscored the degree to which the Camargue is an invented landscape, in constant need of adjustment and upkeep. A far cry from the *marais malsain* of the nineteenth century, the Camargue has become both more and less than what its many suitors had hoped for, at once an “organic machine” and an invented wilderness, a landscape where the forces of development and preservation continue to seek a middle ground.⁶⁷

⁶⁷ Richard White, *The Organic Machine* (New York: Hill and Wang, 1995)

Chapter Eight Conclusion

As the preceding chapters demonstrate, the control, regulation and improvement of marginal environments were critical components of state-building in modern France. In charting the complex interplay of state and society over the question of marginal lands, this dissertation offers an interpretation of environmental change as a history of modern power. This dissertation uses the concept of environmental marginality, defined broadly as a set of unequal but mutable economic, political and cultural relations between the French state and peripheral regions, to offer new perspectives on the ways environmental claims both forwarded and frustrated processes of modernization, state-building and national unification. Notions of environmental marginality were deployed by political and technocratic elites to legitimize their incursions into the hinterlands of the nation. Discourses of degradation, risk and the public good implicated local communities in the unproductive, unhealthy and dangerous state of their landscapes at the same time it enlisted them in their reform. Yet these very discourses also proved elastic, open to appropriation and reconfiguration by both rural communities and later civic groups that sought to define their own relationship to both nature and nation.

The state was a key agent of environmental change in modern France. The Second Empire targeted non-arable and degraded lands such as marshes, common pasture and deforested mountains as threats to agricultural production and public health as well as sources of natural disasters. While these concerns were certainly not new, they became important sites in the extension and legitimization of political authority under the Second Empire, which rested uneasily on the combination of authoritarian decrees, technocratic ideals and social paternalism. Though more modest than the dazzling display of Haussmann's renovation of Paris, and less glorious than military and colonial exploits, projects of afforestation, alpine restoration and reclamation formed an important part of the "spectacle" of the Second Empire. By turning wastelands in forest, mastering unruly floods, conjuring insalubrious marshes and restoring degraded landscapes, the French state sought to implant itself along the margins of the nation.

The rise of the Third Republic inscribed these environmental ambitions with the universalist ideals of participatory democracy but remained committed to a technocratic vision of marginal landscapes as obstacles to economic growth, social order and political authority. Modernization and national unification, critical to extending the political and social ideals of republicanism to rural France, depended on the mastery of difficult environments. Projects of forestation, reclamation and alpine restoration became important components in the civilizing mission of the Republican state as it sought to transform "peasants into Frenchmen."

While the state appears as a central actor in the construction of marginal environment as a field of power relations and an object of interventionist policies, the complex stories of the regions studied here also reveal the diversity, and agency, of other environmental claimants. The language of environmental marginality proved highly elastic, open to adaptation and appropriation by social groups as they sought to preserve, and at times reinvent, their own relationship to both nature and nation. From the beginning, state intervention into marginal France was blunted by presence of local inhabitants. Reclamation, restoration and reforestation schemes, based around a technocratic vision of environmental marginality, came up against alternate readings of local landscapes. Often representing important resources, both material and symbolic, to rural communities, marginal environments focused local claims of ownership and identity. Moments of sharp and defined resistance were rare; rather, a mix of accommodation, appropriation and adaptation seemed to define relations between Paris and the rural periphery.

Environmental claims over marginal France were further complicated by the emergence of urban and middle class social groups at the end of the nineteenth century who appropriated these spaces for their own ends. Tourist, regionalist and conservationist organizations turned to marginal environments where they sought to redraw the relations between nature and nation. The proliferation of claims to marginal regions diluted, and sometimes re-shaped, state initiatives. In the Alps, the state foresters found themselves shoulder to

shoulder with tourist associations and commercial interests as they sought to regenerate alpine nature. In the Camargue, engineers came under attack from regionalists and conservationists who re-invented the delta a cultural homeland and natural sanctuary. In the *Landes*, the forests designed by the state became local resources jealously guarded by private landowners who asserted their own techniques of forest management and fire prevention.

The French state found its efforts of environmental control complicated not only by the claims of civil society but the unpredictability of engineered landscapes. Nature failed to follow the script of modernization, producing new challenges and threats in place of old. Monoculture forest that had conquered the wastelands of Aquitaine also cultivated a new fire ecology that threatened to return the region to a wasteland. Reclamation projects like dike building, drainage and irrigation in the Camargue inadvertently led to the return of flooding and salinization. Reforestation and flood control campaigns in the southern mountains could do little to affect the environmental and climatic limits of an arid and limestone landscape to forest density and hydraulic regularity. In many ways, marginal environments continued to elude the very control that had inspired their transformation.

As a nexus of political, social, technological and environmental discourses, the problem of marginal lands in modern France reflects the ways modern power is enacted through claims over nature. As Pierre Bourdieu points out, states tend to produce the very social problems through which they express

their authority, expertise and sovereignty. They invent the very metrics, categories and institutions that come to measure, explain and translate its power into expressions of the public good.¹ The administrations of the *Ponts-et-Chaussées* and *Eaux-et-Forêts* played an important role in the construction of environmental marginality as social problem. Engineers and foresters were assigned the difficult task of rendering disordered and dangerous marginal environments “legible” to the administrative eye. By representing regions like the *Landes*, Camargue and southern mountains as degraded and risky landscapes counter to the public good of the nation, they transformed them into objects of state rationalization.

In a sense, environmental margins were simultaneous sites of state intervention and state *invention*. They suggest the degree to which the state itself is, as Michel Foucault put it, a “mythicized abstraction”, an “effect” as much as an agent of power relations.² In as much as what defined marginal environments was their potential to be reformed and recuperated by the state, they helped produce an image of the state as a distant, unified and rational entity. By deploying discourses of degradation, risk and the public good, as well material technologies of landscape change, engineers and foresters drew lines between the irrational practices of local society and the enlightened rationalism of state bureaucracy.

¹ Pierre Bourdieu, “Rethinking the State: Genesis and Structure of the Bureaucratic Field,” in *State/Culture: State-Formation after the Cultural Turn*, ed. George Steinmetz (Ithaca: Cornell University Press, 1999), 53-75.

² Michel Foucault, “Governmentality,” in *The Foucault Effect: Studies in Governmentality*, eds. G. Burchell, C. Gordon and P. Miller (Chicago: University of Chicago Press, 1991), 103. For more on the state as the “structural effect” of power relations, see Timothy Mitchell, “The Limits of the State: Beyond Statist Approaches and Their Critics,” *American Political Science Review* 85: 1 (1991), 77-96.

Yet this dissertation also suggests that the boundaries between state and society were porous, difficult to produce as well as police. Reclamation, restoration and reforestation schemes invoked notions of state rationality and providence against the perceived irrationality and improvidence of local society. In reality, this dichotomy was always frayed, fractured and compromised. That environmental marginality proved to be a fluid, heterodox and times unpredictable construct illustrates how state visions of territory and population required a lot of work to be translated into practice. State representations of marginal regions were constantly being interrupted, adapted and modified by other actors.³

An approach to environmental marginality as a field of power relations has ramifications beyond the hexagon. As recent works on the environmental history of empire attests, notions of environmental marginality shaped colonial rule and its appropriation of natural resources. In an effort to maximize revenue gains and minimize social resistance, European colonial states promoted intensive and sedentary agricultural production while imposing strict regulations on marginal, non-arable lands, particularly forests and pasture held in common by local communities.⁴The distinction between productive and marginal was informed by

³ According to the anthropologist Matthew Hull, the “semiotic technologies” that states employ to render complex social reality into legible and controllable spaces require a host of intermediaries that frequently cloud and refract these very efforts. Matthew S. Hull, “Ruled by Records: The expropriation of land and the misappropriation of lists in Islamabad,” *American Ethnologist* 35 (4) 2008: 504.

⁴ South Asian environmental history is particularly instructive on this count. See, among others, David Arnold and Ramachandra Guha, eds., *Nature, Culture, Imperialism: Essays on the Environmental History of South Asia* (New York: Oxford University Press, 1997); R. Guha, *The Unquiet Woods : Ecological change and peasant resistance in the Himalaya* (Berkeley: University

narratives of environmental degradation such as deforestation, desiccation and erosion which, while not altogether inaccurate, helped legitimize colonial claims over land and resources by indicting local practices.⁵

While recent works on the French empire have demonstrated the importance of such degradationist discourses to imperial rule and resource management, it remains to be seen how they may have shaped, or been shaped by, metropolitan constructions of environmental marginality. It seems plausible, for example, that narratives of deforestation that shaped colonialism in North Africa, Indochina and Madagascar, had roots in the domestic obsession with alpine margins and the risks they posed to the nation.⁶ On the other hand, colonial allusions frequently laced representations of marginal regions in France, as in the *Landes* where moorland appeared as a domestic Sahara and its shepherds Bedouins. A greater attention to the ways environmental marginality legitimized claims over places and people might reveal new ways in which national and imperial constructions of nature informed one another.

The history of marginal environments also sheds light on the emergence of modern conservation and preservation movements. As historians have pointed

of California Press, 1989) and K. Sivaramakrishnan, *Modern Forests: Statemaking and Environmental Change in Colonial Eastern India* (Stanford: Stanford University Press, 1999).

⁵ This work on the cultural and political construction of degradationist discourses has been most treated by Africanists. See James Fairhead and Melissa Leach, *Misreading the African Landscape: society and ecology in a forest-savanna mosaic* (Cambridge: Cambridge University Press, 1996) and J. C. McCann, "The Plow and the Forest: Narratives of Deforestation in Ethiopia, 1840–1992," *Environmental History* 2 (1997): 138–59. For an account of how European narratives of degradation, particularly deforestation, shaped rule in British India, see Ravi Rajan, *Modernizing Nature: Forestry and Imperial Eco-Development 1800-1950* (Oxford: Oxford University Press, 2006).

⁶ There are exceptions. See, for instance, Michael Osborne, *Nature, the Exotic, and the Science of French Colonialism* (Bloomington: Indiana University Press, 1994) and Vasant K. Saberwal, "Science and the Desiccationist Discourse of the 20th Century," *Environment and History* 4 (1998): 309-343.

out in other contexts, the efforts of states to control, regulate and restore marginal environments played an important role in shaping modern conservation and preservation movements. Perceptions of environmental degradation in colonial settings, Richard Grove argues, shaped Western discourses of conservation.⁷ At the same time, American environmental historians have reinterpreted U.S. conservation and preservation movements as originating in efforts to regulate marginal landscapes and the groups living in them.⁸ In this view, conservation and preservation were as much about restoring and remaking marginal nature as they were about preserving wild and pristine nature. Marcus Hall has recently suggested the European origins of this restorationist impulse, behind which certainly lurks notions of environmental marginality as a call to action.⁹

French historians would do well to pay more attention to the relationship between environmental marginality and preservation. Scholars have tended to trace the emergence of nature preservation in the aesthetic and moral justifications wielded by urban bourgeoisie for preserving natural landscapes as sites of leisure and agents of social reform.¹⁰ Yet, as some of the research here

⁷ Richard Grove, *Green Imperialism: colonial expansion, tropical island Edens, and the origins of environmentalism, 1600-1860* (Cambridge: Cambridge University Press, 1995).

⁸ For perspectives on how representations and narratives of environmental marginality shaped the conservation movement, see Paul Sutter, "New Deal Conservation: A View from the Wilderness," in *FDR and the Environment*, eds. David Woolner and Henry Henderson (New York: Palgrave MacMillan, 2005), 103-4; Mark Spence, *Dispossessing the Wilderness: Indian Removal and the Making of the National Parks* (Oxford: Oxford University Press, 1999); and Karl Jacoby, *Crimes against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001).

⁹ Marcus Hall, *Earth Repair: A Transatlantic History of Environmental Repair* (Charlottesville: University of Virginia Press, 2005).

¹⁰ Nicolas Green, *The Spectacle of Nature: Landscape and bourgeois culture in nineteenth-century France*. Manchester, Manchester University Press, 1990); A. Cadoret, ed., *Protection de la nature, histoire et idéologie* (Paris: l'Harmattan, 1978); and Bernard Kalaora, *Le musée vert:*

indicates, it also was closely linked to state efforts to regulate and improve marginal lands for the benefit of society. The alpine reforestation campaign, for instance, helped popularize concerns over deforestation, energizing tourist and preservationist movements and their calls for national parks. It was no coincidence that the first national park, however embryonic, at L'Oisans was originally a reforestation perimeter. State projects to engineer the Camargue helped crystallize both regionalist and scientific efforts to preserve the wildlife and marshlands. In this sense, the emergence of national parks and reserves, which Caroline Ford has recently traced to the policies of the colonial state in North Africa to stem deforestation, might also be viewed within the context of metropolitan efforts to transform marginal environments.¹¹

These observations offer a counter to the declensionist tendency in environmental history where degradation is frequently identified as the defining outcome of modernity.¹² While examples of the environmental costs of state-building, capitalism, industry, and technology are plentiful, their analytical power is at times blunted by a presumption that use inevitably leads to degradation and further estrangement between man and nature. Laments over environmental ruin

Naissance et développement d'un loisir urbain, le cas de la forêt de fontainebleau. (Paris: Editions anthropos, 1981).

¹¹ Caroline Ford, "Nature, Culture, and Conservation in France and Her Colonies, 1840-1940," *Past and Present* 183 (May 2004): 173-198. Ford is currently preparing a book for Harvard University Press, entitled *Nature and Artifice: Culture and Conservation in Metropolitan and Colonial France*.

¹² A number of observers have noted the "penitential mood" of environmental history where change often appears, in the words of David Blackbourne, as a "downward glide to perdition." David Blackbourne, *The Conquest of Nature: Water, Landscape and the Making of Modern Germany* (London: Jonathan Cape, 2006), 11. Also see Simon Schama, *Landscape and Memory* (New York: Vintage Books, 1995), 13, and, more recently, Paul Sutter, "Reflections: What Can U.S. Environmental Historians Learn from non-U.S. Environmental Historiography?" *Environmental History* 8 (2003): 118.

can elide the complexity of environmental relations and their unexpected returns or reversals, those spaces and moments where new (and possibly more just, equitable and sustainable) configurations between the human and non-human realms are possible.

A greater attention to the ways the relationship between society and nature has been modulated through ideas of improvement, restoration and recuperation- the ways nature has been remade for social ends- can shed light on the basic hybridity of environmental entities. As new work emerging from “envirotech” scholars suggests, the boundaries between nature, society and technology have become increasingly blurred in our modern landscapes. Linear narratives of environmental degradation or technological conquest no longer serve, if they ever did, our historical understandings of the complex interplay of human and non-human realms.¹³In this sense, this history of marginal landscapes in France might inform the present and anticipate the future of many other places. After all, the work of creating, maintaining, repairing, reshaping and sometimes simply enduring these uncertain landscapes seems to be a defining characteristic of our modern era.

¹³ Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter (Cambridge: Harvard University Press, 1993). For a sampling of recent envirotech scholarship, see Martin Reuss and Stephen H. Cutcliffe, eds., *The Illusory Boundary: Environment and Technology in History* (Charlottesville: University of Virginia Press, 2010).

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