

The Natures of Nation: State-building and the Politics of Environmental  
Marginality in 19<sup>th</sup> and 20<sup>th</sup> Century Southern France

by

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To My Parents

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## **Abstract**

The Natures of Nation: State-building and the Politics of Environmental Marginality in 19<sup>th</sup> and 20<sup>th</sup> Century Southern France

by

Samuel S. Temple

Chair: Joshua H. Cole

This dissertation argues that efforts to identify, improve, and, at times, preserve “marginal” environments such as moor, marshlands and alpine slopes both contributed to and complicated the broader process of state-building in modern France. It employs the concept of environmental marginality, defined broadly as a set of unequal but mutable economic, political and cultural relations between the French state and rural communities, to demonstrate how environmental claims forwarded and frustrated state power. In particular, it highlights the role of discourses of degradation, risk and the public good in the ongoing negotiation between the French state and rural peripheries over the proper use and allocation of natural resources.

Three case studies frame the geographical and temporal scope of this dissertation: the creation and management of pine forests in the *Landes de Gascogne* south of Bordeaux; the reclamation and hydraulic engineering of the Camargue, delta of the Rhone river; and the alpine restoration campaign in the southern Alps and Pyrenees. I argue that these projects of environmental engineering, initiated by the Second Empire and extended by the Third Republic, reflected a shift in attitudes towards national territory, from a given set of geographical boundaries defined by sovereignty to a space of rationalization and improvement. Distinct in scale, scope and objectives, all three projects sought the same end: to govern nature in a way that best served the agricultural, commercial and industrial needs of the nation.

At the same time, the dissertation demonstrates how environmental marginality tested the limits and coherence of state power. Marginal landscapes, I contend, did not easily submit to the demands of modernization and state-building. Rather, they proved to be stubborn sites of contestation and creative appropriation, where the conventional boundaries between state and society blur. Rural and urban groups alike vied with both the state and one another for control over the material resources and cultural meaning of local environments. Environmental marginality, this dissertation concludes, was not merely a useful fiction of administrative control but rather an ongoing dialogue of national belonging that emerged at the interstices of state, society and nature.

## Chapter One Introduction

Today, marginal environments compose the vast majority of protected lands in France. Marshes, mountains, deltas and coastlines draw a mix of nature lovers, tourists and outdoor enthusiasts. National and regional parks, wildlife refuges and “eco-museums” have rendered these environments into privileged spaces of both nature protection and cultural preservation. Prior to the 20<sup>th</sup> century, however, these landscapes were considered the bane of civilization. Considered unproductive, unhealthy and catastrophic, marginal lands were something to conquer and transform, not preserve.

Generally overlooked by French historians, the problem of marginal environments nevertheless offer a unique window onto the history of modern France. This dissertation argues that efforts to identify, improve, and, at times, preserve “marginal” environments such as moors, marshlands and alpine slopes both contributed to and complicated the broader process of state-building that profoundly shaped the lives and landscapes of French men and women. It employs the concept of environmental marginality, defined broadly as a set of unequal but mutable economic, political and cultural relations between the French state and rural communities, to demonstrate how environmental claims forwarded and frustrated state power in modern France. In particular, it highlights the role of discourses of degradation, risk and the public good in the ongoing

negotiation between the French state and rural peripheries over the proper use and allocation of natural resources.

Three case studies frame the geographical and temporal scope of this dissertation: the creation and management of pine forests in the *Landes de Gascogne* south of Bordeaux; the reclamation and hydraulic engineering of the Camargue, delta of the Rhone river; and the alpine restoration campaign in the southern Alps and Pyrenees. I argue that these projects of environmental engineering, initiated by the Second Empire and extended by the Third Republic, reflected a shift in attitudes towards national territory, from a given set of geographical boundaries defined by sovereignty to a space of rationalization and improvement. Distinct in scale, scope and objectives, all three projects sought the same end: to govern nature in a way that best served the agricultural, commercial and industrial needs of the nation. Through techniques of property reform, hydraulic engineering, reforestation and flood control, the French state attempted to integrate these marginal regions and their inhabitants into the market economy and national polity. Whether cast in productivist, hygienic or catastrophic terms, environmental marginality became a key mode through which the French state sought to extend its control over both resources and population

At the same time, the dissertation demonstrates how the problem of environmental marginality tested the limits and coherence of state power. Marginal landscapes, I contend, did not easily submit to the demands of modernization and state-building. Rather, they proved to be stubborn sites of contestation and creative appropriation, where the conventional boundaries

between state and society blur. Territorial improvement schemes hatched in engineering reports and legislative debate became fragmented through the prisms of proliferating claims. Rural and urban groups alike vied with both the state and one another for control over the material resources and cultural meaning of local environments. Landowning elites, poor peasants, forest workers, tourists, regionalists, conservationists and industrialists both forwarded and frustrated state efforts to transform national territory and define national belonging. Environmental marginality, this dissertation concludes, was not merely a useful fiction of administrative control but rather an ongoing dialogue of national belonging that emerged at the interstices of state, society and nature.

### *The Environment in French History*

In studying how environmental marginality became incorporated into both political imaginaries and territorial policies of modern France, this dissertation contributes to the growing field of French and, more broadly, European environmental history. Since its emergence in the 1970s as a distinct field of historical inquiry in the United States, environmental history has matured and diversified, enriched by different national and global perspectives. While American scholarship occupied a dominant position early on, particularly in its focus on wilderness and conservation, the field has evolved along different paths in Europe, Asia, Africa and Latin America where, in general terms, there has

been a greater emphasis on peasant societies, state-building and colonialism.<sup>1</sup> A dizzying array of topics, theoretical approaches and methodologies now comprise what counts as environmental history. Alongside more established currents of forest, agricultural and conservation history one finds new approaches to imperialism, industrial and urban pollution, consumption, gender and race relations, technological and scientific development and natural disasters.<sup>2</sup>

French environmental history has, until recently, been a minor contributor to the larger field. This is not say that the environment is absent from French narratives of historical change. Quite the opposite. French historians have long been interested in the relations between society and nature. The *Annales* school, identified by some as a key precursor to American environmental history, focused on the *long durée* of historical change, forging a close relationship between rural history and geography while at the same time attempting to bridge the growing divergence between the natural and human “sciences.”<sup>3</sup> Succeeding generations of rural and agricultural historians, historical geographers, sociologists and forest historians, among others, have produced a

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<sup>1</sup> For critiques of the exceptionalist and provincial tendencies of the American field, see Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third-World Critique," *Environmental Ethics* 11 (Spring 1989): 71–83 and Richard Grove, "Editorial," *Environment and History* 1: 1 (1995).

<sup>2</sup> For recent attempts at diagnostic overviews, see Alfred W. Crosby, "The Past and Present of Environmental History," *American Historical Review* 100, no. 4 (October 1995): 1177–89; J. R. McNeill, "Observations on the Nature and Culture of Environmental History," *History and Theory* 42, no. 4 (2003): 5–43; Sverker Sorlin and Paul Warde, "The Problem of the Problem of Environmental History: A Re-reading of the Field," *Environmental History* 12 (January 2007): 107–30; and Joachim Radku, *Nature and Power: A global history of the environment*, trans. Thomas Dunlap (Washington, D.C.: Cambridge University Press, 2008).

<sup>3</sup> For contrasting interpretations of the importance of *Annales* scholarship to American environmental history, see Crosby, "The Past and Present of Environmental History" and G. Massard-Guilbaud, "Quelle histoire pour l'environnement?," *Annales des Mines* 48 (2007), 30–37.

rich and diverse scholarship on the changing relations between environment and society in France.<sup>4</sup> Yet, as some have suggested, it is precisely this plurality of approaches and disciplinary agendas that has dampened the development of a distinct field of environmental history with an identifiable set of methodological and theoretical practices.<sup>5</sup> Over the past decade, there has been a noticeable effort to consolidate the various strands of scholarship on the environmental.<sup>6</sup>

Three broad tendencies have characterized historical research on the environment in France. First, cultivated and human landscapes take precedence of over wild nature. In contrast to American concerns with wilderness and conservation, French approaches have tended to focus on the agricultural and symbolic uses to which nature is put. As Caroline Ford and Tamara Whited observe, French historians have shown little interest in the “autonomous forces of a wild nature” that remain an important, if problematic, pole in American environmental history.<sup>7</sup> Indeed, in its rejection of a strict division between nature and culture in favor of more relational and hybrid conception of “social” nature,

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<sup>4</sup> For recent assessments of French contributions to European environmental history, see Caroline Ford, “Nature’s Fortunes: New Directions in the Writing of European Environmental History,” *Journal of Modern History* 79 (March 2007): 112-133; Ford and Tamara Whited, “Introduction,” in the special issue “New Directions in French Environmental History,” *French Historical Studies* 32: 3 (2009); Michael Bess, Mark Cioc, James Sievert, “Environmental history writing in southern Europe,” *Environmental History* 5: 4 (2000); and Fabien Locher and Grégory Quenet, “L’histoire environnementale : origines, enjeux et perspectives d’un nouveau chantier,” *Revue d’histoire moderne et contemporaine* 56: 4 (2009):7-38.

<sup>5</sup> Fabien Locher and Grégory Quenet, “L’histoire environnementale,” 19-21.

<sup>6</sup> For instance, the Réseau Universitaire de Chercheurs en Histoire Environnementale or RUCHE was established 2008 and the first summer school of the European Society for Environmental History was held in Saint-Rémy-les-Chevreuse, France in 2010.

<sup>7</sup> Ford and Tamara Whited, “Introduction,” 345; Ford, “Landscape and Environment in French Historical and Geographical Thought: New Directions,” *French Historical Studies* 24 (2001): 125–34. For one of the foundational texts of the “wilderness debate” in American history, see William Cronon, “The Problem With The Trouble with Wilderness; or, Getting Back to the Wrong Nature,” in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: W.W. Norton & Co., 1995), 69-90.

French scholarship has in many ways anticipated the more recent “cultural” turn in environmental history in the United States.<sup>8</sup>

Another characteristic of historical approaches to the environment in France is the pervasive presence of the state. Institutions like the *Ponts-et-Chaussées* and *Eaux-et-Forets* played an important role in both the cataloging and reshaping of national territory and their frequent conflicts with agrarian local populations over resource management have been a major focus of rural and forest history. Sociologists and geographers have contributed to state-centered approaches through their critiques of technocratic representations of nature as an instrument to elide local claims to land and resources.<sup>9</sup> As Gregory Quenet and Fabian Locher note, even the term *environnement* is tainted with a statist cast, emerging not from ecological activism as in the United States but postwar technocratic planning and the establishment of the Ministry for the Protection of Nature and the Environment in 1971.<sup>10</sup>

Finally, French historical perspectives on the environment reflect how ideals of technological modernity have shaped attitudes towards nature and territory since the eighteenth century. The Enlightenment promoted a vision of nature as the raw material of human ingenuity and improvement. In the

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<sup>8</sup> Richard White, “From Wilderness to Hybrid Landscapes: The cultural turn in environmental history,” *The Historian* 66 (2004): 559.

<sup>9</sup> J.L. Fabiani, “La nature, l'action publique, et la régulation sociale. Du rural à l'environnement,” in *La question de la nature aujourd'hui*, eds. N. Mathieu and M. Jollivet (Paris: L'Harmattan, 1989), 195-208; B. Kalaora, *Au-delà de la nature l'environnement: l'observation sociale de l'environnement* (Paris: L'Harmattan, 1998); Y. Luginbuhl, “Nature, paysage, environnement,” in *Du milieu à l'environnement: pratiques et représentations du rapport homme-nature depuis la Renaissance* (Paris: Economica, 1992).

<sup>10</sup> They speculate this is one reason environmental history as a distinct field has been met with some suspicion among French scholars. Fabien Locher and Grégory Quenet, “L'histoire environnementale,” 18. For the earlier use of *environnement* among academic geographers, see P. Matagne, “L'Homme et l'environnement,” in *Les sources de l'histoire de l'environnement: Le XIXe siècle*, ed. A. Corvol (Paris: L'Harmattan, 1999), 73.

nineteenth century, doctrines of circulation and technological modernity, inspired in large part by followers of Saint-Simon, shaped ideals of national territory. In the twentieth century, postwar anxieties over the disappearance of rural landscapes at home and loss of resource-rich colonies abroad were balanced by faith in “frantic modernization”: supersonic Concorde, high-speed trains and nuclear reactors heralded a new national identity centered around technological modernity.<sup>11</sup>

An analysis of marginal environments both contributes to and complicates these historical themes of cultivated landscapes, state institutions and technocratic visions. First, it suggests that uncultivated regions, by representing the antithesis of well-used nature, played an important role in the ways the French both imagined and managed their national territory. Second, it reveals how, while the state was an important actor in environmental transformation, a host of other groups contributed to the remaking of nature in France. Finally, it points to the ways that the environmental constraints of, as well as competing

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<sup>11</sup> The general technocratic influence over environmental ideas is noted in Michael Bess, Mark Cioc, James Sievert, “Environmental history writing in southern Europe,” *Environmental History* 5: 4 (2000): 545. For an account of Enlightenment connections between environment and ideals of technological control, see Rosalind Williams, “Nature Out of Control: Cultural Origins and Environmental Implications of Large Technological Systems,” in *Cultures of Control*, ed. Miriam Levin (London: Routledge, 1996), 42-43. The role of Saint-simonianism in how nineteenth century elites envisioned national territory and the appropriate uses of nature is treated in Antoine Picon, *Les Saint-Simoniens: Raison, imaginaire et utopie* (Paris: Belin, 2002) and Jean-Luc Mayaud, “Le Second Empire: faite économique ou épisode négligeable?” in *Pourquoi réhabiliter le Second Empire?*, ed. Maurice Agulhon (Paris: B. Giovanangeli, 1997), 105-116. For postwar accounts of technological modernity and its important in reframing national identity, see Michael Bess, *Light Green Society: Ecology and technological modernity in France, 1960-2000* (Chicago: University of Chicago Press, 2003); Gabrielle Hecht, *The radiance of France : nuclear power and national identity after World War II* (Cambridge: MIT Press, 1998); and Sara B. Pritchard, “Reconstructing the Rhone: The Cultural Politics of Nature and Nation in Contemporary France, 1945-1997,” *French Historical Studies* 27: 4 (2004), 765-799.

claims over, marginal regions both provoked and resisted efforts of technological mastery.

### *Nature and Nation-building in France: The politics of environmental marginality*

The second half of the nineteenth century in France marked an era of unprecedented state intervention into the environment. Scripted under the Second Empire and extended by the Third Republic, a new politics of territory, or *aménagement du territoire*, emerged as an essential component of national unification. Along with the familiar projects of road, canal, and rail construction that sought to integrate national markets, lesser-known efforts of reclamation, irrigation, and reforestation aimed to “improve” lands deemed ruined, sterile, insalubrious and even catastrophic. While foresters were dispatched to an alpine periphery ravaged by deforestation, erosion and flooding, engineers made their way to barren plains and fetid marshlands.<sup>12</sup>

In studying the social and political construction of environmental marginality, this dissertation adds a new perspective to the well-known processes of modernization and nation-building charted by French historians. As elsewhere in Europe, nineteenth century France witnessed the growing insinuation of the state into lives and landscapes. Beginning with the dissolution of intermediary seignorial and ecclesiastic privilege following the Revolution, state practices and institutions steadily expanded into rural France. Customary and local practices

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<sup>12</sup> For a brief overview of some of these projects, see Louis Girard, *La politique des Travaux publics du Second Empire* (Paris: Librairie Armand Colin, 1952), 230-237.

became increasingly overlaid with bureaucratic forms and institutions: the creation of new territorial units in the form of departments and communes; the rationalization of custom and tax collection; the spread of judicial courts; and the extension of property reform, military conscription and education to rural regions.<sup>13</sup>

In his 1976 classic, *Peasants into Frenchmen*, Eugen Weber provided a compelling interpretation of how this process of “statification” forged the modern French nation. Weber showed how, in the second half of the nineteenth century, the spreading tendrils of state infrastructure and institutions such roads, rails, schools and military conscription helped unite the previously disparate and culturally distinct regions of France. While none of this was news to most rural historians, Weber managed to craft a narrative that appealed to both specialists and generalists, inside and outside of French history. Eschewing for the most part elite discourses and ideologies, Weber focused on the ways the prosaic functions and technologies of the state itself was crucial in forging national identity. Transportation, market economies, mandatory schooling and military service, rather than political discourse, were what really transformed peasants into Frenchmen.<sup>14</sup>

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<sup>13</sup> Isser Woloch, *The New Regime: Transformations of the French Civic Order, 1789-1820s* (New York: W.W. Norton & Co., 1994), 34; Lutz Raphael, “L’Etat dans les villages,” in *Histoire de l’Europe rurale contemporaine, Du Village à L’Etat*, ed. Rita Aldenhoff-Hübinger (Paris: A. Colin, 2006), 250-1.

<sup>14</sup> Laird Boswell, “Rethinking the Nation at the Periphery,” *French Politics, Culture & Society* 27.2 (2009): 113. Geoff Eley echoes this point, noting that in England and France national identity emerged less from intellectual forms than through the institutions of state-formation, such as parliamentary government, a national press and reading “public”, compulsory education, and public works. Geoff Eley and Ronald Grigor Suny, “Introduction,” in *Becoming National: a Reader*, eds. Geoff Eley and Ronald Grigor Suny (New York: Oxford University Press, 1996), 8-9.

Weber's basic thesis provoked a generation of scholarship that sought to refine and revise its expansive claims. Earlier works focused on the periodization of Weber's argument, demonstrating the vitality of republican culture among peasantry prior to Third Republic.<sup>15</sup> More recent works have shown the complexity of the process of nation-building itself. They focus on the complexities of integration, demonstrating the persistence of local and regional institutions and identities and their creative adaptation to, rather than wholesale assimilation into, the nation. In these revisionist accounts, religious difference, education and territorial boundaries have become fertile nodes in the heterogeneous "imagining" of the nation.<sup>16</sup> The assimilation of regional cultures and languages to the national standard through schools, for instance, has been revised by several historians who examine the ways local dialects and customs were tolerated, if not celebrated, and became integral links between local and national identity.<sup>17</sup> Religion, too, has been shown to be a powerful vector in the negotiation and, at times, contestation of a unitary national identity, as Ford demonstrates in Brittany.<sup>18</sup> Borderlands and frontiers, often viewed as revealing

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<sup>15</sup> Maurice Agulhon, *The Republic in the village: the people of the Var from the French Revolution to the Second Republic*, trans. Janet Lloyd (Cambridge: Cambridge University Press, 1982). For a re-assessment of French nationhood in the 18<sup>th</sup> century, see David Bell, *The Cult of the Nation in France: Inventing Nationalism, 1680-1800* (Cambridge: Harvard University, 2001).

<sup>16</sup> Benedict Anderson, *Imagined communities: reflections on the origin and spread of nationalism* (London: Verso, 1983).

<sup>17</sup> Anne-Marie Thiesse, *Ils apprenaient la France: L'exaltation des régions dans le discours patriotique* (Paris: Éditions de la Maison des sciences de l'homme, 1997); Jean-François Chanet, *L'école républicaine et les petites patries* (Paris: Aubert, 1996).

<sup>18</sup> Caroline Ford, *Creating the Nation in Provincial France: Religion and Political Identity in Brittany* (Princeton: Princeton University Press, 1993)

the limits of national integration, are now presented as critical sites in its reconfiguration.<sup>19</sup>

A study of environmental marginality adds to these nuanced accounts of state-building and modernization in France by showing how nature itself could become a medium through which the terms of nationhood were negotiated. It suggests that representations of deforestation, agricultural sterility and insalubrity were critical justifications for the extension of state power over rural France. Linked to local practices considered ignorant, irrational, or merely apathetic, the degraded state of lands became an object of state rationalization in the name of the “public good.”

In pointing out the close relationship between environmental control and state power, this dissertation echoes other recent work that illustrates how European states consolidated, exercised and extended their political and social power through efforts to control and refashion nature. Regulating forest, digging canals, channeling rivers and reclaiming marshlands went hand and hand with the administrative centralization, social regulation and imperial expansion of European states.<sup>20</sup> In particular, scholars have reinterpreted the French state in

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<sup>19</sup> Peter Sahlins, *Boundaries: the making of France and Spain in the Pyrenees* (Berkeley: University of California Press, 1989); Laird Boswell, “Rethinking the Nation at the Periphery,” 113.

<sup>20</sup> See, for instance, James C. Scott, *Seeing Like a State: How certain schemes to improve the human condition have failed* (New Haven: Yale University Press, 1998); David Blackburn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (New York: W.W. Norton & Co., 2006); Dale Porter, *The Thames embankment: environment, technology, and society in Victorian London* (Akron: University of Akron Press, 1998); Patrick Carroll, *Science, Culture, and Modern State Formation* (Berkeley: University of California Press, 2006); Paul Warde, *Ecology, Economy and State Formation in Early Modern Germany* (Cambridge: Cambridge University Press, 2006); Karl Papuan, “Inventing Nature: Forests, Forestry and State Power in Renaissance Venice,” *Journal of Modern History* 72 (2000): 861-89; and Stuart

terms of its claims over and transformations of environment. Since the 17<sup>th</sup> century, one finds that state power and environmental control have been tightly bound together. Chandra Mukerji has shown the importance of territorial control, however contested and fragile, to the early modern French state. Andrée Corvol, Tamar Whited and others have exposed the relationships between forest regulation and political power. Alice Ingold has shown how regimes of hydraulic knowledge inflected the expansion of the French state in 19<sup>th</sup> century while Sara Pritchard has revealed the engineering of the Rhône river as a labor of postwar nation-building.<sup>21</sup>

Of course, the environmental claims of the French state did not always translate into environmental control. While marginal lands became a prime target in the expansion of the French state in the nineteenth century, they were far from inert sites on which modernization was inscribed. This dissertation contends that environmental marginality proved to be fluid and tactical discourse, adaptable by different groups as they sought to remake nature for their own ends. While they took advantage of the 1857 law forcing villages to sell off their common pasture, landowners in the *Landes* quickly divested themselves of the language of the ruined commons as they sought to repair their relations with the rural world whose labor they depended on to foster and maintain their new forests. Likewise,

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McCook, *States of Nature: Science, Agriculture, and Environment in the Spanish Caribbean, 1760-1940* (Austin: University of Texas Press, 2002).

<sup>21</sup> Chandra Mukerji, *Impossible engineering: technology and territoriality on the Canal du Midi* (Princeton: Princeton University Press, 2009); Andrée Corvol, *L'Homme aux Bois: Histoire des relations de l'homme et de la forêt (XVIIe-XXe siècle)*. (Paris: Fayard, 1987); Tamara Whited, *Forests and Peasant Politics* (New Haven: Princeton University Press, 2000); Alice Ingold, "To Historicize or Naturalize Nature: Hydraulic Communities and Administrative States in Nineteenth-Century Europe," *French Historical Studies* 32:3 (2009): 385-417; and Sara Pritchard, "Reconstructing the Rhône".

landowners in the Camargue took advantage of state engineering expertise and capital to build a critical sea wall and drainage infrastructure even as they contested the authority of the state to manage these public works. In the alpine regions, tourist groups and industrial reformers took up the banner of reforestation, though often in ways that eroded or undercut technocratic visions of alpine forest. While they embraced the ecological catastrophism of foresters, many ended up challenging the expertise of the state to adequately understand, let alone manage, local resources like pasture and forest.

The plurality of claims that emerged around the problem of marginal environments reflects the point made by Richard White that nature does not come to us as a single unified story but rather a buzz of “competing and complex discourses.”<sup>22</sup> It is this diversity of “natures” that this dissertation seeks to capture. In order to do so, it identifies three main narratives or discourses through which environmental marginality was expressed: degradation, risk and the public good. While often overlapping, these discourses were distinct circuits of environmental knowledge, representations and claims. In each of the case studies dealt with here, notions of degradation, risk and the public good were deployed in different ways by the state, local inhabitants and civic associations as they sought to establish their own relationship to marginal nature and, in the process, the French nation.

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<sup>22</sup> Richard White, “From Wilderness to Hybrid Landscapes,” 559.

## *Degradationist narratives since the Enlightenment*

That narratives of degradation justified the extension of state authority over natural resources and local populations has been a key insight of recent environmental histories of European imperialism.<sup>23</sup> Works by Caroline Ford, Diane Davis, Frédéric Thomas and Jason Kull, for instance, have investigated the ideological dimensions of environmental degradation claims rampant in the French colonies of Algeria, Madagascar and Vietnam. They illustrate how narratives of deforestation, desiccation, over-pasturage and soil erosion, associated with abusive local practices, legitimized colonial claims to land and resources.<sup>24</sup> To date, however, there has been little work done on the relationship of this language of degradation to the metropolitan context, specifically to projects of territorial improvement in rural France. This study suggests that, while the imperial experience reshaped environmental thinking in important ways, one should not lose sight of some of its domestic roots.

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<sup>23</sup> On the origins and impact of European theories of environmental degradation, see Richard Grove, *Green Imperialism: colonial expansion, tropical island Edens, and the origins of environmentalism, 1600-1860* (Cambridge: Cambridge University Press, 1995). For an important analysis of how representations of degradation shaped colonial and postcolonial state policies towards resource management in Africa and India, see James Fairlead and Melissa Leach, *Misreading the African Landscape: society and ecology in a forest-savanna mosaic* (Cambridge: Cambridge University Press, 1996); and Vasant K. Saberwal, "Science and the Desiccationist Discourse of the Twentieth Century", *Environment and History* 4 (1998): 309-343.

<sup>24</sup> Diana K. Davis, *Resurrecting the Granary of Rome: environmental history and French colonial expansion in North Africa* (Athens: Ohio University Press, 2007); Caroline Ford, "Reforestation, Landscape Conservation, and the Anxieties of Empire in French Colonial Algeria," *American Historical Review* 113 (2008): 341-362; Frédéric Thomas, "Protection des forêts et environnementalisme colonial: Indochina, 1860-1945," *Revue d'histoire moderne et contemporaine* 56:4 (2009): 104-136; and Jason Kull, "Deforestation, Erosion, and Fire: Degradation Myths in the Environmental History of Madagascar," *Environment and History* 6 (2000): 423-450.

The problem of marginal lands emerged from Enlightenment and Revolutionary concerns over the proper relationship between society and nature. The persistence of unproductive and uncultivated land was a perennial concern in the eighteenth century. At the end of Louis XIV's reign, the royal military engineer Vauban had estimated that "wastelands" accounted for thirty percent of French territory. Faced with a growing demand for both food production and state revenue, the French monarchy turned its attention to the expansion of arable, and therefore taxable, land. Royal inquiries into the extent of wastelands in the provinces, as well as small-scale initiatives in reclamation and *défrichement* (the clearance of wastelands), reflected this growing spirit of agricultural reform.<sup>25</sup> Yet, by the end of the eighteenth century, marginal lands remained a prominent feature of national territory. In his well-known *Travels in France* (1792), the English agricultural reformer Arthur Young lamented over the 11 million hectares of wasteland that continued to blight the French countryside.<sup>26</sup>

Attitudes towards marginal lands reflected the distinction between cultivated and uncultivated nature fundamental to eighteenth century perceptions of environment. Cereal crops, vineyards and prairies were regarded as the prestige of civilization, the fruit of human labor and ingenuity, and the durable wealth of nations. Productive lands were not only aesthetically pleasing but healthful as well. Influenced by neo-Hippocratic theories of health,

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<sup>25</sup> Keith Sutton, "Reclamation of Wasteland During the Eighteenth and Nineteenth Centuries," in *Themes in the Historical Geography of France*, ed. Hugh D. Clout (London: Academic Press, 1977), 255-258; Noelle Plack, "Agrarian Reform and Ecological Change during the Ancient Régime: Land Clearance, Peasants and Viticulture in the Province of Languedoc," *French History* 19:2 (2005), 189-210; and J.L. Rosenthal, *The Fruits of Revolution: Property rights, litigation and French agriculture, 1700-1860* (Cambridge: Cambridge University Press, 1992), 39-58.

<sup>26</sup> G. Gavignaud-Fontaine, *La Révolution rurale de la France contemporaine, XVIIIe-XXe siècle* (Paris: L'Harmattan, 1996), 34.

contemporaries associated cultivated nature with the circulation of “good” air and water. Uncultivated nature, by contrast, was shunned. Craggy peaks, tangled forests, stagnant marshlands and rough pasture were considered ugly, dangerous and unhealthy, a threat to the rational ordering of landscape.<sup>27</sup>

The demonization of uncultivated landscapes owed much to Physiocratic theories of agricultural wealth and property. Enlightenment Physiocrats and agronomists regarded agricultural production as the basis for national wealth. By subtracting arable land from national territory, marginal environments undermined the basis of economic, and therefore social, progress.<sup>28</sup>

A profound critique of communal lands and collective rights underpinned Physiocratic notions of productive nature. As elsewhere in Europe, the unregulated and open use of common lands, as well customary use rights on private lands such as grazing, gleaning, and wood-cutting, were considered sources of environmental degradation, producing sterile, chaotic, even catastrophic, landscapes.<sup>29</sup> “One cannot repeat it enough,” wrote the compte

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<sup>27</sup> A number of scholars have observed the importance of cultivated-uncultivated distinction to perceptions of nature in the eighteenth century. See Marie-Vic Ozouf-Marignier, “L’environnement vu par des notables locaux à la fin du XVIIIe siècle,” in *Du Milieu à l’environnement: Pratiques et représentations du rapport homme-nature depuis la Renaissance*, ed. Marie-Claire Robic (Paris: Economica, 1992), 64-66; Marie-Noëlle Bourguet, “L’image des terres incultes: La lande, la friche, le marais,” in *La Nature en Revolution, 1750-1800*, ed. A. Corvo (Paris: L’Harmattan, 1993), 17, 25; Yves Luginbuhl, “Sauvage-cultivé: l’ordre social de l’harmonie des paysages,” in *Du rural à l’environnement: la question de la nature aujourd’hui*, eds. N. Mathieu and M. Jollivet (Paris: Harmattan, 1989), 42-49; and Alain Corbin, *The Foul and the Fragrant: Odor and the French Social Imagination* (Cambridge: Harvard University Press, 1988).

<sup>28</sup> P.M. Jones, *The Peasantry in the French Revolution* (Cambridge: Cambridge University Press, 1988), 18; Gavignaud-Fontaine, *La Révolution rurale de la France contemporaine*, 34.

<sup>29</sup> Jones, *The Peasantry in the French Revolution*, 137-154. For a comprehensive analysis of debates over the commons since the Enlightenment, see Nadine Vivier, *Propriété collective et identité communale: Les biens communaux en France, 1750-1914* (Paris: Publications de la Sorbonne, 1998), 14-18. For a broader account of the significance of common land in Europe, see M. De Moor et al., “Comparing the historical commons,” in *The Management of Common*

d'Essuilles in 1770, one of the most prominent Physiocratic opponents of the commons: "[E]ach exercise of communal right is but the perpetuation of ruin and pillage."<sup>30</sup> For d'Essuilles and many of his contemporaries, the degraded and "catastrophic" commons were key obstacles to both economic and social progress. Envyng the productive gains that enclosure policies had secured for England, Physiocrats and their supporters lobbied for the division and privatization of communal lands and the eradication of collective use rights, though with little effect.

A growing concern under the Old Regime, marginal lands posed sterner political and social challenges for Revolutionary France. Frequently consisting of common pasture, marsh and forest, they nurtured the very kinds of ownership that revolutionaries were trying to do away with. For members of the Convention who cherished the ideals of private property and administrative uniformity, the mosaic of local property relations that characterized marginal regions smacked of the Old Regime and its archaic customs. The privatization of the communal lands, many revolutionaries believed, would create a new class of freehold peasant proprietors, thereby "attach[ing] the inhabitants of the countryside to the Revolution."<sup>31</sup> Yet, though it effectively disposed of seigniorial and ecclesiastic property regimes, the Revolution failed to conquer the commons. The sheer diversity of communal practices and widespread resistance to their erosion resigned legislators to a weak compromise. Neither the Code rural of 1791,

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*Land in North West Europe 1500-1850*, eds. M. De Moor, L. Shaw-Taylor and P.S. Warde (Turnhout: Brepols Publishers, 2002), 16-17.

<sup>30</sup> *Compte d' Essuile, Traité politique et économique des communes* (Paris, 1770), 63.

<sup>31</sup> Quoted in M. Bloch, *French Rural History: An essay on its basic characteristics* (Berkeley: University of California Press, 1973), 243.

which attempted to balance the extension of individual property rights with a recognition of customary rights, nor the 1793 partition law, which authorized the voluntary sale of non-wooded communal lands, revolutionized property relations in the countryside.<sup>32</sup>

These efforts of rural reform ensured that the specter of degraded “catastrophic” nature would continue to haunt French administrators in the nineteenth century.<sup>33</sup> For one thing, the state got better at “seeing” marginal lands. Prior the cadastral surveys ordered by Napoléon in 1807, most marginal land was not even recorded in land registers since, by virtue of either its real or claimed unproductivity, it was not taxed. Always concerned with increasing arable and taxable lands, succeeding regimes became more adept at cataloging French territory. Cadastral surveys, commissioned by Napoleon and completed between the 1820s and 1840s, vastly increased the cartographic knowledge of the state, while agricultural censuses provided more detailed inventories of the lands in each department.<sup>34</sup> In this new cataloging of national territory, southern France appeared as a bastion of marginal lands. Across Languedoc, Provence and Gascony, as well as the southern Alps and Pyrenees, the problem of

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<sup>32</sup> Daniel Solakian, “Territoires naturels et communautés: la loi du 14 août 1792-10 juin 1793,” in *La nature en révolution*, 145-155.

<sup>33</sup> For more on the discourse of the catastrophic commons in the 19th century, see Vivier, “The management and use of the commons,” in *The Management of Common Land in North West Europe 1500-1850*, 145; Luginbuhl, *Paysages*, 150.

<sup>34</sup> It is interesting to note that the early cadastral surveys, completed between the 1820s and 1840s, cataloged over 16% of national territory as wasteland, not far off from Arthur Young’s estimate. Keith Sutton, “Reclamation of Wasteland,” 262.

degraded nature- specifically communal pasture and marsh- became an increasing source of concern among state officials.<sup>35</sup>

The discourse of the catastrophic commons was widely adopted by engineers and foresters in the nineteenth century. For them, marginal environments were symptoms not so much of inevitable natural processes but abusive local practices. Communal grazing, incineration, and marsh cultivation were not only inefficient forms of exploitation, ill-suited to the commercial and industrial needs of a modern nation such as France; they were also agents of environmental degradation. Sterility, insalubrity and degradation were viewed as the environmental consequences of human abuse and apathy. If these catastrophic landscapes could be mastered, the nation would have claimed a major victory over both nature and archaic local custom. This discourse of catastrophe became, in the words of Serge Briffaud, a powerful “alibi for a politics of intervention.”<sup>36</sup>

### *Environmental risk and modernization*

The renewed prominence of marginal lands in both public discourse and state policy during the Second Empire reflected growing concerns over environmental hazards and the challenges they posed to territorial modernization. The increased frequency and intensity of major flooding along the

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<sup>35</sup>Of course, common lands existed elsewhere, most notably in the northeastern regions of Alsace and Lorraine. Unlike in southern France, however, the commons were considered far more productive and integrated into the market economy, either as leased arable land or as timber forests. Vivier, “The management and use of the commons,” 148-9.

<sup>36</sup> Serge Briffaud, *Naissance d'un paysage: la montagne pyrénéenne à la croisée des regards, XVI-XIX siècles*. (Toulouse: CIMA-CNRS, 1994), 391.

Loire, Rhone, Garonne and Seine, culminating in the great floods of 1856-7, had fed anxieties over alpine deforestation and erosion that had been percolating since before the French Revolution. Deforested mountain slopes were believed to be the main cause of catastrophic flooding that threatened cities, factories, bridges, roads and railways, not to mention rural communities. As Napoleon III famously promised at the opening of the 1857 parliamentary session, “rivers, like revolution, will return to their beds and remain unable to rise during my reign.”<sup>37</sup>

At the same time, concerns over sterile nature, particularly in light of liberalizing efforts to develop commercial infrastructure and loosen trade restrictions, made the extension of arable lands a top priority for state administrators. Lowland communal pasture and marshlands, as in the *Landes* and Camargue, were not only inimical to agricultural production and individual property rights but public health, their lack of drainage and stagnant waters associated with sickness and disease.<sup>38</sup>

Marginal lands were, in fact, at the heart of an emerging geography of risk that divided national territory into protective mountains and productive plains. In the technocratic imagination, degraded uplands would be divested of extensive pasturage and subsistence agriculture in favor of erosion- and flood- resistant forests while unproductive lowlands would be developed for intensive cash crops

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<sup>37</sup> Quoted in Whited, *Forests and Peasant Politics*, 58. For an interpretation of the 1856 floods as a turning point in the “nationalization” of natural catastrophes, see A. Méjean, “Utilisation politique d'une catastrophe: le voyage de Napoléon III en Provence durant la grande crue de 1856,” *Revue historique* 597 (1996): 133-152.

<sup>38</sup> State concerns over insalubrious wetlands was also reflected in efforts to eradicate the artificial ponds created through the diking and canalization of rivers in regions like the Brennes, Dombes and Sologne, where pisciculture proved more economically-viable than agriculture. E. Rouher, “Rapport à l'Empereur,” *Le Moniteur Universel*, 27 February 1860, 237-239. Also see Jean-Marie Derex, “Pour une histoire des zones humides en France (XVIIe-XIXe siècle): Des paysages oubliés, une histoire à écrire,” *Histoire et sociétés rurales* 15 (2001): 11-36.

linked to national markets. This “imagined rationalization of plain and mountain,” as Tamara Whitehead puts it, was in effect a language of risk deployed by state experts attempting to fashion a landscape suited for the commercial and industrial needs of the nation.<sup>39</sup>

Risk, social theorists have maintained, is not synonymous with dangers, threats and hazards, whether natural or man-made. Rather, it is the ways these dangers are mapped onto social institutions and human bodies. While “constructivist” interpretations of risk vary, they agree on the basic premise that risks cannot be divorced from social, technological and ecological orders through which they are perceived, regulated and experienced. According to the anthropologist Mary Douglas, risk cannot be reduced to a calculation of objective threats or danger; rather, the perception and evaluation of risk are rooted in the social structures and cultural values of specific groups.<sup>40</sup> Other scholars, influenced by Foucaultian concepts of governmentality and biopower, view risk as the invention, rather than the object, of regulatory institutions. As Mitchell Dean argues, what matters is not risk itself but the forms of knowledge that make it “thinkable”, the techniques that make it visible, the technologies that try to govern it, and the forms of political rationality that deploy it.<sup>41</sup> The work of Ulrich Beck and Anthony Giddens, while acknowledging the political instrumentality and

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<sup>39</sup> T. Whitehead, *Forests and Peasant Politics in Modern France*, 54-55.

<sup>40</sup> Mary Douglas and Aaron Wildavsky, *Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers* (Berkeley: University of California Press, 1983).

<sup>41</sup> Mitchell Dean, *Governmentality: Power and Rule in Modern Society* (London: Sage Publications, 1999), 178. For an overview of the intersection of risk theory and governmentality studies, see Deborah Lupton, *Risk* (London: Routledge, 1999), 86-106.

regulatory animus of risk, suggests that the production of new risks is the hallmark of modern industrial society.<sup>42</sup> For them, modernity has led to a proliferation of *real* technological and environmental risks that both drive and outstrip the forms of expertise and “norms of calculability” designated to evaluate and regulate them.<sup>43</sup>

The concept of risk has become an important category of analysis among French historians, particularly those working at the intersection of environment, technology and state-building. While social theorists tend to view modern risk and risk society as a product of the postwar conjunction of technology, industry and global finance, French historians have shown how the identification, regulation and production of risks characterized much of the eighteenth and nineteenth centuries as well. Nineteenth century cities, for instance, generated specific kinds and cultures of risk.<sup>44</sup> Along with smoke pollution, industrial wastes and sewage came the regulatory practices that sought to manage the health and environmental risks they posed.<sup>45</sup> Natural hazards and disasters have also been treated as sources of risk culture. Catastrophes such as floods, avalanches, and earthquakes, while the result of natural processes, were also political events, calling forth a host of regulatory and interventionist techniques that sought to re-

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<sup>42</sup> Ulrich Beck, *World Risk Society* (Cambridge: Polity Press, 1999); Anthony Giddens, *The Consequences of Modernity* (Cambridge: Polity, 1990).

<sup>43</sup> Beck, *World Risk Society*, 4.

<sup>44</sup> Soraya Boudia and Nathalie Jas, “Introduction: Risk and ‘Risk Society’ in Historical Perspective,” *History and Technology* 23: 4 (2007): 318; Jean-Baptiste Fressoz, “Beck Back in the 19th Century: Towards a Genealogy of Risk Society,” *History and Technology* 23: 4 (2007): 333–350.

<sup>45</sup> Geneviève Massard-Guilbaud, *Histoire de la pollution industrielle en France, 1789-1914* (Paris: Éditions de l'EHESS, 2010); Thomas Le Roux, “Les nuisances artisanales et industrielles à Paris sous la Révolution et le Consulat (1789-1804),” in *A Paris et la révolution. Nouvelles approches de la ville*, ed. Monnier Raymonde (Paris: Publications de la Sorbonne, 2008), 127-137; and J.B. Fressoz, “The Gas-Lighting Controversy. Technological Risk, Expertise and Regulation in Nineteenth Century Paris and London,” *Journal of Urban History* 33 5 (2007).

establish social order and extend political authority.<sup>46</sup>

Marginal environments offer another view onto the emergence of risk as an organizing set of relations between political institutions, social groups and their surroundings. The identification of risky landscapes became a tactic of state power to lay claim to local resources and reform local populations. The hazards associated with marginal regions- deforestation, erosion, flooding, and disease- were real, leaving their traces on landscapes, bodies and memories. They became risks when the French state attributed them to the abusive practices of local populations and represented them as threats to a public good that it sought to preserve and promote. As noted above, engineering and forestry administrations played a key role in rendering the problem of marginal lands “visible” and, hence, available as sites of state intervention. Through their tireless on-site surveys and meticulous reports and maps, state engineers and foresters rendered marginal lands and their users into environmental risks. Elevation studies of tree growth, assessments of deforestation, photographic records, agricultural surveys and hydraulic flow studies all measured the degree to which

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<sup>46</sup> There are a number of works that deal with changing attitudes towards natural catastrophe and environmental risk in France. See, among others, Grégory Quenet, *Les tremblements de terre aux XVIIe et XVIIIe siècles. La naissance d'un risque* (Seyssel: Champ Vallon, 2005); René Favier and Anne-Marie Granet-Abisset, “Society and Natural Risks in France, 1500-2000: Changing Historical Perspectives,” in *Natural Disasters, Cultural Responses*, eds. Christof Mauch and Christian Pfister (Lanham: Lexington Books, 2009); René Favier and Anne-Marie Granet-Abisset, eds., *Histoire et mémoire des risques naturels*, eds (Grenoble : Maison des Sciences de l'Homme-Alpes, 2000); and A. Méjean, “Utilisation politique d'une catastrophe: le voyage de Napoléon III en Provence durant la grande crue de 1856,” *Revue historique* 597 (1996): 133-152. Alpine regions, particularly the Pyrénées, have featured centrally in studies on the social construction of disaster and risk. See J.-P. Métaillé, “Le fleuve ravageur: risques, catastrophes et aménagement dans les Pyrénées et leur piémont, fin Xlle-XXe siècle,” in *Pour une histoire de l'environnement*, eds. C. Beck and R. Delort (Paris: CNRS, 1993), 105-112 and S. Briffaud, “Le rôle des catastrophes naturelles: Cas de Pyrénées centrales,” in *La Nature en révolution, 1750-1800*, ed. A. Corvol (Paris: L'Harmattan, 1993), 134-144.

these landscapes diverged from ideal models of rational territory and their inhabitants from ideal models of citizenship.

Environmental margins also, however, reveal some of the limitations of risk studies, namely the tendency to focus primarily on experts as the gatekeepers of what constitutes risk for a particular society. The discourse of environmental risk embedded in state projects of lowland reclamation, afforestation, alpine restoration and flood control was only partially controlled by experts. The French state, in the form of its cadre of engineers and foresters, had to contend with alternate voices (sometimes even within its own ranks). Was a marsh a sickly wasteland or a productive local resource? Were deforested alpine slopes evidence of wasteful and short-sighted exploitation or ecologically-sound resource use? Were communal moors unproductive wastelands or carefully managed agro-pastoral landscapes? In the sites studied here, discourses of risk appear at once heterogeneous and contingent. Enlisted by the state to legitimize its interventionist policies of territorial improvement, they could also be appropriate by non-state groups to justify their own claims over and interventions into marginal environments.

The relationship between modernization and environmental risk goes beyond efforts to regulate natural and man-made hazards, however. It also opens up new perspectives on state-society relations and the problem of governance in France. Whether in Landes, the Alps or the Camargue, the problem of marginal environments called into question not only the boundaries

between state and local society but the notion of the public good that knit the nation together.

### *Governing nature: the problem of the public good*

The notion of the public good was a ubiquitous, if ambivalent, feature of public discourse in the nineteenth century. As Yves Charbit points out, its universalist pretensions, stemming from the French Revolution, became a crucial means through which the emerging bourgeoisie sought to define its identity and authority in the context of the widening social and economic divisions wrought by industrialization and urbanization. For liberal thinkers, in particular, the public good became an ideal that promised the reconciliation of economic progress and social peace. On the one hand, it stood for the free market, the unimpeded production and circulation goods and services; on the other, it implied that economic growth should be carried out in ways that promoted prosperity, security and health.<sup>47</sup>

The discourse of the public good was also a crucial aspect of state claims over the environment in 19<sup>th</sup> century France. Under the Second Empire, debates over the public good spread from the heaving cities to the unruly countryside where the specters of depopulation, under-production, isolation and, increasingly, natural disasters appeared to threaten the economic and social order.<sup>48</sup> It was deeply-ingrained in both engineering and forestry circles, where it stood-

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<sup>47</sup> Yves Charbit, *Du malthusianisme au populationnisme: Les Economistes français et la population, 1840-1870* (Paris: Presses universitaires de France, 1981), 77.

<sup>48</sup> Charbit, *Du malthusianisme au populationnisme*, 88.

theory at least- for the wide-spread benefits to the nation over the narrow interests of both private capital and local tradition. The ideal of the public good not only served as a powerful justification for state intervention, it also deeply shaped the identity and sense of mission among those dedicated to managing the resources of the nation.<sup>49</sup>

The convergence of liberal and statist discourses of the public good reflected the economic and political obstacles to transforming marginal environments. The ambitions of foresters and engineers to rationalize what they viewed as marginal nature often outstripped their own financial and political resources. Territorial improvement projects of reforestation, afforestation and reclamation never commanded the budgets that Parisian boulevards or new railway lines did.<sup>50</sup> In addition, since the establishment of universal male suffrage in 1848, rural populations had become a political force, one the French state could not afford to alienate. To succeed, projects of territorial improvement had to balance the coercive threat of the state with a certain economic and political realism that called for the collaboration of local inhabitants.

The emergence of the public good as a legitimatizing discourse of environmental control reflected the growing presence of the French state in the countryside. As recent work in rural history suggests, before mid-century the idea of the state as an abstract and juridical agent of the public good was the exception rather than the rule in the political imaginaries of most rural

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<sup>49</sup> See Theodore Porter, *Trust in numbers: the pursuit of objectivity in science and public life*. (Princeton: Princeton University Press, 1995), 114-125; A. Picon, *L'Invention de l'ingénieur moderne: L'Ecole des Ponts et Chaussées, 1747-1851* (Paris: Presses de l'Ecole nationale des Ponts et Chaussées, 1992), 306-7.

<sup>50</sup> Girard, *La politique des Travaux publics du Second Empire*, 31-2, 230-237.

communities.<sup>51</sup> Instead, the state often appeared as a distant and predatory power, its reach felt most directly in policies of taxation, conscription, and communal property restrictions that were experienced as direct impingements of village life. Resistance could be hard or soft, ranging from revolts against and attacks on state agents and wide-spread desertion of conscripted individuals to illicit inheritance practices and tax avoidance.<sup>52</sup>

In the latter half of the nineteenth century, as the interests of state and local society become increasingly enmeshed, perceptions of the state shift from a predatory agent to a useful, if not entirely benevolent, dispenser of the public good.<sup>53</sup> After all, the central institutions of the state, such as schools, courts and police- all resided in the commune. As a number of works point out, local institutions, far from being eroded by state centralization and political acculturation, became its vital conduit and mediator.<sup>54</sup> Since the law of 14 December 1789, the commune had been the basic civic unit of France. Over

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<sup>51</sup> Charles Wright, "Retour critique sur une catégorie de l'historiographie : les violences contre l'État. Corrèze, 1800-1860," *Ruralia* 20 (2007).

<sup>52</sup> Inspired by Alain Corbin's thesis of the persistence of an "archaic" peasant mentalities well after the Revolution, recent research had focused on the rural resistance and negotiation of state-driven processes of modernization and acculturation. See A.-E. Demartini and D. Kalifa, eds., *Imaginaire et sensibilités au 19e siècle: Études pour Alain Corbin* (Paris: Créaphis, 2005); Christian Thibon, *Pays de Sault. Les Pyrénées audoises au 19<sup>e</sup> siècle: les villages et l'État* (Paris: Éditions du CNRS, 1988); J.N. Luc, ed., *Gendarmerie, État et société au 19<sup>e</sup> siècle* (Paris: Publications de la Sorbonne, 2002); and Édouard Lynch, *Entre la commune et la nation. Identité communautaire et pratique politique en vallée de Campan (Hautes-Pyrénées) au 19<sup>e</sup> siècle* (Tarbes/Toulouse: AGM-Archives des Hautes-Pyrénées/GRHP-université Toulouse 2, 1992).

<sup>53</sup> Francois Ploux, "Production and recomposition des identités villageoises en France," in *Histoire de l'Europe rurale contemporaine, Du Village à L'Etat*, ed. Rita Aldenhoff-Hübinger (Paris: A. Colin, 2006), 50-1.

<sup>54</sup> On the importance of municipal political life to the spread of republicanism to rural France during the Second Empire and Third Republic, see Sudhir Hazareesingh, *From Subject to Citizen: The Second Empire and the Emergence of Modern French Democracy* (Princeton: Princeton University Press, 1998). Also see Hilton Root, *Peasants and King in Burgundy: Agrarian Foundations of French Absolutism* (Berkeley: University of California Press, 1992) and Jean-Pierre Jessenne, "Synergie nationale et dynamique communautaire dans l'évolution politique rurale par-delà la Révolution française," in *La politisation des campagnes au XIX<sup>e</sup> siècle: France, Italie, Espagne et Portugal* (Rome: Ecole française de Rome, 2000), 57-79.

44,000 communes were created, each with a complete municipal administrative architecture of mayor, judges, police and general council that negotiated the boundaries between state and local society.<sup>55</sup> As Francois Ploux has recently observed, it was “at the level of the commune that the peasant encountered the state.”<sup>56</sup>

Familiarity with a language of the public good did not imply uniform acceptance or even shared meaning. In some ways, the increasing proximity of state and local society magnified their different perspectives on the public good. As Alice Ingold notes, the emergence of the public good as an expression of national collectivity coincided with the decline of local forms of collectivity such as communal lands and use rights. This “shift in scale in the definition of the common good” was most evident in conflicts over marginal regions where collective ownership and use rights remained a critical part of local economies and social relations.<sup>57</sup> Appropriated by local groups, the discourse of the public good could become a powerful solvent to projects that devalue their claims to property, place and environment. From the perspective of the environmental margins, then, the public good might be better viewed not so much as an ideological ruse of administrative centralization but as a fluid and heterodox, if not entirely equal, dialogue between local communities and the state.<sup>58</sup>

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<sup>55</sup> Isser Woloch, *Transformations of the French Civic Order*, 34.

<sup>56</sup> Francois Ploux, “Production and recomposition des identites villageoises en France,” 49. In this sense, one might reverse James Scott’s well-known formulation about the modern state: the modernization of France was as much about how society saw the state as how the state saw society. Scott, *Seeing like a State*.

<sup>57</sup> Alice Ingold, “Administrer les 'ressources naturelles', XIX-XXe siècles: Programme de recherche et d'enseignement”, unpublished article, 2003.

<sup>58</sup> 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), 22.

## *Structure of Chapters*

The first section of the dissertation maps out the emergence of environmental marginality as a critical dimension of state power under the Second Empire. It focuses on three of the most well-known and ambitious schemes to transform marginal nature: the alpine restoration campaign, the forestation of the Landes, and the reclamation of the Camargue. Each chapter explores how narratives of environmental degradation, risk and the public good were enlisted as justifications for state intervention and the material transformation of local landscapes. At the same time, they attempt to recover the tactics of rural communities as they tried to modulate these projects in ways that served their own interests.

Chapter Two explores the emergence and fitful implementation of alpine reforestation, focusing on the southern Alps and Pyrenees. It argues that, while state foresters drew liberally on narratives of degradation, deforestation and the “catastrophic” commons, they also sought to modulate their efforts to reform alpine society through appeals to the public good. Chapter Three charts the efforts of the French state to transform the notorious wastelands of the Landes de Gascogne into monoculture pine forest. It demonstrates how state engineers, initially justifying the project of forestation through an ideology of the “catastrophic” commons, found themselves at odds with the local landowners who sought to shape forestation for their own ends. Chapter Four turns to the Camargue and explores how hydraulic discourses of salubrity and circulation

interlaced with local attitudes towards water control to shape the agricultural and industrial transformation of the delta.

The second section of the dissertation describes how marginal landscapes of the nineteenth century became privileged sites of conservation and preservation in the twentieth. It demonstrates how efforts at territorial rationalization, initially framed by the expansion of modern state, were recast by both rural groups and emerging urban movements of nature conservation and preservation of the early 20<sup>th</sup> century. Notions of environmental risk and the public good, so key to state intervention into rural society, migrated to urban and middle-class groups intent on forging their own relationship between nature and nation.

Chapter Five examines how associations like the *Association de l'aménagement des montagnes* and the *Touring Club de France* adopted the cause of alpine restoration as they sought to remake the mountains of France into aesthetic and productive resources of the nation. Chapter Six explores how forest owners in the Landes vacillated between local and expert strategies of fire management. Local landowners grappled with the problem of fire in their new forests by mobilizing ideas of property and risk that, while countering state claims to the forest, also undermined public forms of management. Chapter Seven explores how technocratic efforts to rationalize marginal nature in the Camargue provoked some of the earliest movements for nature preservation. It argues that the collaboration of Félibrige regionalists and Parisian naturalists to create one of the first wildlife refuges was spurred by their shared concerns over the impact of

engineering and reclamation projects to the fragile delta and its natural and human communities.

## Chapter Two Ruin and Regeneration in Alpine France

### *Introduction*

In the spring of 1856 a series of floods wreaked havoc along France's major river basins. Heavy rains, combined with snow melt from the mountains, turned the Loire and Rhône in raging cataracts. Flood waters rose to over seven meters in some regions, overwhelming dikes and embankments. The floods became a national event as frantic telegraphs from the far-flung provinces were recorded daily in the *Moniteur Universel*. The provincial cities of Blois and Tours along the Loire and Lyon, Avignon and Arles on the Rhône all reported suffering considerable damage. According to the hastily organized relief commission, the floods had caused an estimated 177 million francs in damage across forty-one departments.<sup>1</sup>

Napoleon III, whose rise to imperial sovereignty owed much to the support of rural populations, was quick to take political advantage of the floods. Intent on burnishing his populist credentials prior to the 1857 legislative elections, the emperor set off from Paris on the night of June 1, incognito, on a tour of the hardest hit regions. Beginning in Lyon, the Emperor traveled down the Rhône,

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<sup>1</sup> Archives nationales françaises (hereafter AN) F14 16575, "Rapport concernant les mesures adoptés pour la distribution des secours extraordinaires aux Inondés de 1856."

distributing donations to flood victims along the way. The catastrophe highlighted the ideals of enlightened authority and civic paternalism that defined his regime.<sup>2</sup> As one official chronicle solemnly observed, the enraged waters provided the perfect theater for the demonstration of imperial charity, “as if Providence wanted, at the moment of a great calamity...to show once more to the nation the [Emperor] towards whom all citizens, when the alarm sounds...must look towards and plead for the aid that he alone can understand and achieve.”<sup>3</sup> A report from the Ministry of Agriculture, Commerce and Public Works ventured that the floods “left behind [not only] the memory of a catastrophe the likes of which this era had never seen [but] the sentiment of profound recognition towards the acts of devotion and benevolence exemplified by the Emperor.”<sup>4</sup> The prevention of natural catastrophes, like social unrest, had become a measure of political authority and legitimacy under the Second Empire. At the opening of the legislative sessions of 1857, the Emperor promised the nation that “rivers, like revolution, will return to their beds and remain unable to rise during my reign.”<sup>5</sup>

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<sup>2</sup> For more on the importance of mass spectacle to the crafting of political legitimacy under the Second Empire, see Matthew Truesdell, *Spectacular Politics: Louis-Napoleon Bonaparte and the Fête impériale, 1849-1870* (New York: Oxford University Press, 1997). For an analysis of the political use of catastrophe under the Second Empire, see A. Méjean, “Utilisation politique d'une catastrophe: le voyage de Napoléon III en Provence durant la grande crue de 1856,” *Revue historique* 597 (1996): 133-152.

<sup>3</sup> E. Pick, *Almanach impérial des grandes inondations de 1856* (Paris: Librairie Napoléonienne, 1857), 5.

<sup>4</sup> AN F14 16575, Behic, “Rapport à Sa Majesté l'Empereur sur les Inondations de 1856.”

<sup>5</sup> Quoted in Jean-Luc Mayaud, “Le Second Empire: façade économique ou épisode négligeable?” in *Pourquoi réhabiliter le Second Empire?*, ed. Maurice Agulhon (Paris: B. Giovanangeli, 1997), 105-116.

**Figure 1. The Emperor distributing alms to flood victims in Lyon. Hippolyte Lazerges (1856)**



Concerns of political economy as much as moral legitimacy shaped the imperial regime's response to the floods. Unruly rivers threatened the program of territorial modernization or *aménagement du territoire* that defined the domestic policy of the Second Empire. In his *programme de paix* of January 5, 1860, Napoleon III outlined a comprehensive policy to liberalize the economy, improve transport and infrastructure and increase both agricultural and industrial credit.<sup>6</sup> Flooding along the nation's major river basins endangered the commercial links between Paris and the periphery, particularly along the major arteries of the Loire, which served the ports of western France, and the Rhône, which opened

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<sup>6</sup> *Moniteur Universel*, 15 January 1860.

onto Marseilles and the Mediterranean. Nature could not be allowed to disturb this imperial vision of national territory as a grand circuitry of goods and capital.<sup>7</sup>

In July 1860, the *Corps législatifs* passed the first law on alpine reforestation. Over fourteen articles, the law outlined a project to reforest hundreds of thousands of hectares across Pyrenees, Cévennes and Alps. It authorized the *Eaux et Forêts* Administration to carry out reforestation projects wherever deforestation and erosion were found. Its main objective was to reduce the threat of flooding along the major river basins, major conduits for national commerce. It was clearly one of the most ambitious attempts at environmental engineering in the nineteenth century.

Scholars have tended to attribute the law to the authoritarian currents of the Second Empire, viewing it as an expression of territorial control at odds with local practice. As the instrument of distant administrators and zealous foresters intent on rationalizing national territory, reforestation policies occluded the logic of local resource use, namely the vital importance of communal pasturage to alpine economies. According to Andrée Corvol, the leading historian of forests in France, “official discourse always denied any rationality in the relations between rural society and the Tree.” For the sociologist Bernard Kalaora, reforestation policies privileged the “representation of an abstract, de-territorialized and Jacobin landscape” over “native” economic and social relations. Tamara Whited, in her finely textured account of reforestation efforts in the departments of Ariège

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<sup>7</sup> The notion of circulation- of products, people and ideas- was an essential component of modernization, as both the object of public works and as a metaphor of progress itself. See Wolfgang Schivelbusch, *The Railway Journey : the industrialization of time and space in the 19th century* (Berkeley: University of California Press, 1987), 188-197; Antoine Picon, *Les Saint-Simoniens: Raison, imaginaire et utopie*. (Paris: Belin, 2002), 297-303.

and Savoie, comes to a similar conclusion, arguing that the basic tension in alpine reforestation emerged from the imposition of a “technocratic vision of rationalized landscape” on the “humanized mountain” of local alpine communities.<sup>8</sup>

Yet, as this chapter argues, policies of reforestation were more than just oppressive technologies of state intervention. From the very beginning, it was clear that they would have to be a collaborative effort, requiring the support of local populations. The French state had neither the financial means nor the political stomach for protracted skirmishes along its periphery. In the actual policies enacted by French lawmakers and fitfully carried out by foresters, one finds a practical flexibility that, while not necessarily erasing an institutional bias against local practices, blurs any hard and fast line between state visions and local realities.

Property rights and notions of the public good became important currency in the exchanges between foresters and local inhabitants. Alpine reforestation attacked communal pasturage as the main cause of deforestation, erosion and, ultimately, catastrophic flooding, clear threats to the both local communities and the nation at large. Invoking the public good, a recurring theme in texts and official reports, was a powerful tactic to legitimize state intervention into these local landscapes. Yet it was a concept that privileged the downstream interests of industry and commerce over that of local communities and their subsistence

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<sup>8</sup> Andrée Corvol, *L'Homme aux Bois: Histoire des relations de l'homme et de la forêt (XVIIe-XXe siècle)*. (Paris: Fayard, 1987) 375; Bernard Kalaora, *Au-delà de la nature l'environnement: l'observation sociale de l'environnement*. (Paris: L'Hartmattan, 1998), 12-13; Tamara Whited, *Forests and Peasant Politics in Modern France*. (New Haven: Yale University Press, 2000), 215.

economies. Moreover, it posited the value of individual property rights over communal ones as the key to rational resource management. The French state found itself in the difficult position of convincing local populations to amend their traditional practices through appeals to an abstract public good that largely excluded them. The mountains, it seemed, could not serve two masters.

### *Ruined Nature: Deforestation and the légende noire of the French Revolution*

The health of French forests had long been a preoccupation of the French state. The 1669 Forest Ordinance established under Louis XIV codified a series of regulations to protect forests, underlining their vital importance as raw materials for defense and war.<sup>9</sup> During the course of the eighteenth century, the expansion of agriculture and industry stressed the nation's forests as never before. The French state found itself caught between the need to feed to its growing population and the maintenance of its woodland resources. Land clearance or *défrichement* policies, heralded by agronomists and Physiocrats convinced that agricultural wealth was the pillar of a strong nation, ran up against the growing fear that the nation's forests were in decline.<sup>10</sup> According to the comte d'Essuiles, who undertook several fact-finding missions for the Intendant of Finance in the last years of the Old Regime, French forests outside the royal

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<sup>9</sup> In extending monarchical sovereignty over all French forests, the ordinance was a defining moment in the management of natural resources in France. *Les Eaux et Forêts du 12e au 20e siècle*. (Paris: Editions CNRS, 1987), 85.

<sup>10</sup> Michel Devèze, "Les Forêts françaises à la veille de la Révolution de 1789," in *La Forêt et les communautés rurales* (Paris: Publications de la Sorbonne, 1982), 179.

parks were suffering a sharp decline, “ most of which was due to local plunder and the devastation of grazing beasts.”<sup>11</sup>

The French Revolution intensified this territorial dilemma between forest and field. The abolition of seignorial and ecclesiastical property allowed local inhabitants to exploit lands once restricted in both access and use. While the extension of private property to the rural masses was seen by many as an essential component of establishing the new nation, the unregulated clearance of land threatened to ruin the very territory the Revolution sought to transform. Peasants, it was said, plundered the forests like “cabbage from the garden.”<sup>12</sup> If France had cast off the social and political shackles of the Old Regime, it now faced wide-spread environmental destruction. Forty-five laws were passed between 1790 and 1795 in an attempt to halt what the agronomist Coupé de l’Oise referred to as the “greedy fury of clearances” which, perpetuated by poor peasants, was consuming the nation’s forests through fire, axe and plow.<sup>13</sup>

Amidst this tableaux of environmental ruin, mountains took on particular significance. In a report delivered to the National Convention on April 8 1793, Claude Fabre de l’Herault warned his colleagues of the danger deforested mountains posed to the new nation: “What have become of these immense forests that once covered the peaks of our mountains? Their naked summits now offer only arid wasteland. Careless egotism, always concerning itself with the present, has destroyed this important branch of the rural economy. Let us hasten

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<sup>11</sup> Quoted in Devèze, “Les Forêts françaises,” 183.

<sup>12</sup> Denis Woronoff, “La ‘dévastation révolutionnaire’ des forêts”, in *Révolution et espaces forestiers*, ed. Denis Woronoff (Paris: Editions L’Harmattan, 1988), 47.

<sup>13</sup> Peter McPhee, “The misguided greed of peasants? Popular attitudes to the environment in the Revolution of 1789,” *French Historical Studies* 24 2 (2001): 247-269.

to repair these evils of which the future race is threatened; let us encourage those who can rejuvenate the oak and pine in our mountains.”<sup>14</sup>

Fears over alpine deforestation were heightened by the growing conviction that it contributed to severe flooding along the nation’s major waterways, particularly in southern France. Throughout the latter half of the 18<sup>th</sup> century, engineers and administrators had speculated that the increased frequency of flooding was due to excessive land clearance in alpine regions.<sup>15</sup> Engineers in the province of Roussillon, for instance, had blamed the increase of floods between 1760 and 1790 on the degradation of alpine lands.<sup>16</sup>

It was not until the Revolution that the association between deforestation and lowland flooding became widespread, thanks in large part to the publication of Jean-Antoine Fabre’s *Essai sur la theorie des torrens et des rivières* in 1797. A Ponts-et-Chaussées engineer stationed in the department of the Var, Fabre had witnessed first hand the degradation of the southern Alps and its disastrous effects along the Durance river basin. While acknowledging effects of precipitation, avalanches and alternate cycles of freezing and thawing on soil erosion and run-off, Fabre believed that recent deforestation and land clearance had accelerated this natural degradation into a man-made catastrophe. His theory rested on an assumption that forests acted like a great sponge, absorbing

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<sup>14</sup> Cited in Daniel Solakian, “Territoires naturels et communautés: la loi du 14 août 1792-10 juin 1793,” in *La nature en révolution, 1750-1800*, ed. Andrée Corvol (Paris: L’Harmattan, 1993), 154.

<sup>15</sup> Serge Briffaud, “Le rôle des catastrophes naturelles: Cas de Pyrénées centrales,” in *La Nature en révolution, 1750-1800*, ed. Andrée Corvol (Paris: L’Harmattan, 1993), 134-144; 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*, ed. Corinne Beck and Robert Delort (Paris: CNRS, 1993), 105-112.

<sup>16</sup> Bertrand Desailly, “Perception et gestion du risque naturel: les ingénieurs et les crues méditerranéennes”, in *La Nature en Révolution, 1750-1800*, 41-2.

excess waters through their roots and accumulated humus and allowing a slow release over the course of the year. With the loss of forests, the entire hydrological cycle came unhinged. Water ran unimpeded, accelerating erosion and feeding torrents and larger rivers with a slurry of alpine detritus.<sup>17</sup> These turgid waters widened river beds, endangered agricultural lands and irrigation systems, threatened public infrastructure such as dikes, roads and bridges before, finally, depositing their accumulated sediments at the mouths of ports, endangering maritime traffic through the creation of sandbars. In short, by upsetting the hydrological order, deforestation threatened the very foundations of French territory.

Throughout the alpine periphery, administrators and engineers confirmed Fabre's fears, attributing the intensification of floods to the local destruction of forests. In the department of the Basses-Alpes, the engineer Martin described how "the division of commons and the concessions made to individual landowners have brought the most shocking abuses...Mountainsides have been stripped of all vegetation that impedes the flow of water... Floods have become far more dangerous than before."<sup>18</sup> Officials lamented the same year that the "slopes of our most beautiful hills are laid bare", allowing even "the smallest streams [to] become torrents", threatening the crops, herds and houses of local communities.<sup>19</sup> Department officials in the Aude testified to a sharp increase in

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<sup>17</sup> Jean-Antoine Fabre, *Essai sur la theorie des torrens et des rivières* (Paris: Bidault, 1797), v. For a discussion of Fabre as an important precursor to 19<sup>th</sup> century views on the human impact on the environment, see Clarence J. Glacken, *Traces on the Rhodian Shore* (Berkeley: University of California Press, 1967), 698-702.

<sup>18</sup> Quoted in R. Blanchard, "Déboisement et reboisement des préAlpes du Sud," *Revue de géographie alpine* 32 (1944), 350.

<sup>19</sup> Quoted in Jean-Baptiste Rougier, *Les forêts de la France* (Paris, A. Bertrand, 1817), 73-4.

land clearing and warned that “if we do not put a stop to these degradations, the nation of France will become sterile and depopulated.”<sup>20</sup> In his 1806 study of hydrology in the department of the Hautes-Alpes, Héricart de Thury was perhaps most explicit in the fatal consequences of deforestation. He observed how the locals “have inconsiderately carried the axe and the fire into these forests which shade the steep mountains- the ignored source of their riches. Soon were these emaciated peaks ravaged by waters, torrents swelled and precipitated themselves with fury on the plains; they have cut down, torn away and undermined the foundations of the mountains...[N]o obstacle is opposed to their fury...[S]oon...torrents will have utterly destroyed all this fine basin...”<sup>21</sup>

There is little doubt that the Revolution, in undermining political and social order of the Old Regime, also had profound environmental consequences. The loss of forest cover and extension of agricultural lands following 1789 has been well-documented and many historians have repeated contemporaries’ claims of wide-spread environmental degradation.<sup>22</sup> Yet, as recent scholarship has pointed out, this *légende noire* of the French Revolution was more mythic than real. Forest cover had been under pressure throughout the 18<sup>th</sup> century from multiple sources: naval stores, iron forges, domestic fuel and construction and expansion

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<sup>20</sup> *ibid.*

<sup>21</sup> Héricart de Thury, *Ptomographie des cours d’eau du Département des Hautes-Alpes* quoted in John Croumbie Brown, *Reboisement in France* 2<sup>nd</sup> Edition (London: C.K. Paul & Co., 1880), 59.

<sup>22</sup> Denis Woronoff, “La ‘dévastation révolutionnaire’ des forêts”; Peter Sahlins, *Forest Rites: The War of the Demoiselles in Nineteenth-Century France* (Cambridge: Harvard University Press, 1994); T. Whited, *Forests and Peasant Politics*, 24-5; Simon Schama, 180. It is echoed in global assessments of deforestation. See, for instance, Michael Williams, *Deforesting the Earth: From Prehistory to Global Crisis* (Chicago: University of Chicago Press, 2003), 279, 283, who speaks of the “passion for clearing” that erupted after the Revolution, fed by the “terrible revenge” and “fury” that French peasants directed at forested lands of nobility, church and, inexplicably, their own.

of land clearance as a result of increasing demographic pressure.<sup>23</sup> Moreover, the increase in flooding at the end of the century, while real, is now attributed more to climatic changes in rainfall and cooler temperatures than alpine deforestation.<sup>24</sup> The absorption rates of forests and their effects on hydrological regimes, the key conceptual link between deforestation and flooding, has largely been discredited by modern ecological science.<sup>25</sup> Finally, perhaps the most distorting assumption of the era, that deforestation was the result of abusive peasant practices, specifically communal pasturage, has been challenged by historians who attribute local populations a far greater ecological sensibility than their contemporaries did.<sup>26</sup> In mountains of France, deforestation discourse turned pastoralism into a public enemy. It became, the historian Serge Briffaud notes, “an alibi for a politics of intervention that sought to integrate mountain into nation in both economic and social terms.”<sup>27</sup>

Fears of deforestation faded with the passing of the Revolution and over the next few decades few efforts were made to address the alpine “problem”. The Forest Code of 1827, which sought to regain administrative control of forests

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<sup>23</sup> Frédéric Oge, “Héritage révolutionnaire: Les forêts pyrénéennes, enjeux des conflits Etat-communautés”, in *La Nature en Révolution, 1750-1800*, 156-164 (156); Noelle Plack, “Agrarian Reform and Ecological Change during the Ancien Régime: Land Clearance, Peasants and Viticulture in the Province of Languedoc,” *French History* 19:2 (2005), 189-210.

<sup>24</sup> B. Desailly, “Perception et gestion du risque naturel,” 41; Annick Douguedroit, *Les paysages forestiers de haute-Provence et des Alpes-Maritimes: géographie, écologie, histoire*, Thèse de géographie, Aix-en-Provence, 1976, 419 and Corvol, *L’homme aux bois*, 313.

<sup>25</sup> Vasant K. Saberwal, “Science and the Desiccationist Discourse of the 20<sup>th</sup> Century”, *Environment and History* 3 (1997): 310-11.

<sup>26</sup> Peter McPhee, *Revolution and environment in southern France: peasants, lords and murder in the Corbières, 1780-1830* (Oxford: Oxford University Press, 1999); McPhee, “The misguided greed of peasants’?”.

<sup>27</sup> Serge Briffaud, *Naissance d’un paysage: la montagne pyrénéenne à la croisée des regards, XVI-XIX siècles*. (Toulouse: CIMA-CNRS, 1994), 391; Briffaud, “Le Pyrénéen: constructions et contradictions d’une image.” In *Milieus naturels et identités culturelles*, edited by Andrée Corvol, 41-44. Paris: CNRS, 1993b.

eroded during the Revolution, contained several measures to protect alpine regions from deforestation, such as banning new land clearances, granting tax exemptions to reforested land and authorizing greater surveillance of communal lands. While it sparked wide-spread outrage in the Pyrenees, where simmering tensions between foresters and locals erupted in the famous “Guerre des Demoiselles” in the 1830s, it did not lead to any comprehensive project of alpine reforestation.<sup>28</sup> Not until the 1840s, with a resurgence in flooding along the nation’s major waterways, would the specter of alpine deforestation again rear its head.

### *Discovery of a “Pays Catastrophique”*

The proximity between the discourse and reality of deforestation was closest in the southern Alps. Lower in altitude than their northern brethren, the southern Alps were also considerably drier, a consequence of the Mediterranean climate, and their limestone and marl slopes were particularly vulnerable to erosion from seasonal torrents. For centuries, regional and local bodies had issued edicts that forbid the cutting down of trees and limited pasturage, clearance and burning.<sup>29</sup> The commune of Barcelonnette in the Basses-Alpes, for instance, had regulations that attempted to protect forests going back to 13<sup>th</sup> century. In 1606, the Parliament of Aix issued a decree that forbid the cutting

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<sup>28</sup> Peter Sahlins, *Forest Rites: The War of the Demoiselles in Nineteenth-Century France* (Cambridge: Harvard University Press, 1994); John Merriman, “The ‘Demoiselles’ of the Ariège, 1829-1831,” in Merriman ed., *1830 in France* (New York: New Viewpoints, 1975).

<sup>29</sup> R. Blanchard, “Déboisement et reboisement des Préalpes du Sud,” *Revue de géographie alpine* 32 (1944), 345.

down of any mature trees on public or private lands and similar acts were passed throughout the 17<sup>th</sup> and 18<sup>th</sup> centuries.<sup>30</sup> Demographic growth throughout much of the mountainous *Midi* in the first half of the nineteenth century had increased pressure on local resources and indelibly marked the landscape. In order to expand local agriculture, communities were forced to clear new lands on hillsides prone to erosion.

In the eyes of travelers, engineers and administrators in the nineteenth century, the southern Alps was the quintessential ruined landscape, emblematic of the environmental disorder that ravaged the alpine periphery. According to A. Dugied, prefect of the Basses-Alpes department in 1818 and a staunch proponent of reforestation, over half the department consisted of unproductive lands, a consequence, he believed, of the rampant land clearances unleashed by the Revolution. Having denuded the mountain slopes in a vain effort to extend agricultural production beyond the narrow confines of the valleys, local inhabitants had unwittingly created a catastrophic landscape where torrential flooding, landslides and erosion threatened both themselves and their lowland compatriots. For Dugied, the natural equilibrium between mountain and plain had been disrupted. To restore it, he advocated a series of measures intended to regulate the use of alpine space, such as a ban on new land clearances, tax breaks and subsidies for landowners willing to reforest their lands and the strict regulation of pasturage. Ultimately, the mountain had to be purged of local society. "It is not a question of protecting fields situated along the flanks of our

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<sup>30</sup> Martine Chalvet, "La 'forêt' méditerranéenne: définition et acteurs", in *La Forêt: Perceptions et Représentations*, ed. Andrée Corvol (Paris: L'Harmattan, 1997), 141-150.

mountains,” Dugied observed. “[F]ar from protecting them, it is desirable that they cease to exist.”<sup>31</sup>

Dugied’s writings, well-known among department officials and local elites, became the basis for the most celebrated text on alpine deforestation of the 19<sup>th</sup> century, Alexandre Surell’s *Etude sur les torrents des Hautes-Alpes*. Published in 1841, it became a cornerstone of the reforestation movement, providing a “scientific” explanation for the links between deforestation and flooding that had long been speculated on by earlier observers. A recent graduate of *the Ecole des Ponts-et-Chaussées* stationed in Embrun in the Hautes-Alpes, Surell was struck by the intensity of flooding and erosion he observed in the upper basin of the Durance river which straddled the two departments of the Hautes-Alpes and Basses-Alpes.<sup>32</sup> Beginning in high alpine basins which collected both snowmelt and rain, torrents flowed down steep gorges, collecting debris along the way, and spilled out into the alluvial valleys below where they could cause significant damage to the lands and homes of local communities. Surell admitted that the frequency and intensity of flooding and erosion in the high Alps was due in part to the mix of dry climate with predominant limestone substrate. Yet he was convinced that the primary culprit was deforestation: “When one examines the regions suffering from torrential flooding, one notes that they are always stripped of trees and all brushy vegetation...Wherever there are recent torrents, there are no more forests and wherever one has cleared the land of forests torrents have formed.” The “beautiful forests” that had once carpeted the valley slopes were

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<sup>31</sup> A. Dugied, *Project de boisement des Basses-Alpes* (Paris: Imprimerie Royale, 1819), 50.

<sup>32</sup> “Notice biographique sur Alexandre Surell,” *Annales des Ponts-et-Chaussées* (1888).

“more or less ruined”, exploited by habitants for fuel and the extension of pasture and fields and their soils “naked and devoured by torrents.”<sup>33</sup>

Surell’s treatise provided future *reboiseurs* with a vision of national territory that juxtaposed the plains and mountains in a balancing act of political economy. It assumed an ideal grid of territorial space where the productivity of each region matched its resources. For Surell, alpine forests were not just a powerful deterrent to local flooding; they also represented the future of the nation’s woodlands. The mountains, he believed, were destined to be the final sanctuary of the great forests that had been sacrificed for the agricultural and industrial output of the nation:

Let us leave the plains to be stripped little by little of their forests so that they continue, as in the past, to deliver to us the wheat and sweet fruits of their orchards. They are not made for the wild vegetation of forests and we would return to the barbarism of ancient Gaul if we compel their lands to be covered with sterile trees. But as the forests are effaced from the plains, let us lure them to the mountains, where they are the armor as well as the ornament and decoration....There is their final refuge against the invasions of civilization, which press upon them, pursuing them ax in hand, always growing hungrier and more powerful...<sup>34</sup>

Surell’s call to reforest the French mountains “jusqu’aux crêtes” was reinforced by several years of severe flooding in the early 1840s. A governmental inquiry established in 1843 dispatched the political economist Adolphe Blanqui to the southern Alps to investigate the role alpine deforestation may have played. In an impassioned report to the Academy of Science upon his return, Blanqui reinforced the bleak picture of environmental ruin painted by Dugied, Surell and

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<sup>33</sup> Alexandre Surell, *Etude sur les torrents des Hautes-Alpes*. (Paris: Dunod, 1841), 152

<sup>34</sup> Ibid.

others. He presented a tableaux of destruction, from deforested and eroded slopes to washed out villages, fields and roads. It was a landscape that conjured “images of desolation and death” but also touched his heart and reminded him of the duty of the French nation towards its far-flung and often forgotten frontiers: “The traveler transported into the midst of these martyred populations would hardly believe at times that he was still in France and that the generous heart of our nation sends such a weak pulse to these abandoned extremities.”<sup>35</sup> There was little time to lose, Blanqui warned, for in fifty years France might be separated from Piedmont by a desert that rivaled the Sahara!

The warnings of Surell, Blanqui and others of the imminent ruin of the alpine periphery were quickly overrun by the events of 1848. Urban revolution, not rural degradation, became the order of day, as the nation transitioned from the July Monarchy to the Second Republic. The confluence of a new emperor and new floods in the 1850s, however, would thrust alpine deforestation back into public awareness.

### *The Politics of Reforestation under the Second Empire*

By the 1850s, the purported links between catastrophic flooding and alpine deforestation were well-established within administrative circles. In the wake of the 1856 floods, the parliamentary commission in charge of flood relief aid clearly indicated the human causes of this “natural” disaster:

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<sup>35</sup> Adolphe Blanqui, *Du Déboisement des Montagnes* (Paris: Renard, 1846), 10, 30.

Is it not permissible to ask if civilization, whose demands have at times been satisfied beyond the limits of prudence, has not itself contributed to these disturbances? The forests which cover the summit and flanks of our mountains and which prevent rain waters from arriving too quickly in brooks and rivers, have for the most part disappeared.<sup>36</sup>

The beneficial effects of forests for the nation became, for a brief time, a fashionable topic in the popular press. A 1859 article in the *Revue des Deux-Mondes* celebrated forests as a cure-all for every conceivable ill afflicting French territory: “Not only would [alpine reforestation] put an end to flooding forever, but it would provoke more rain in arid climates, diminish it humid climates, protect both from dangerous winds, stabilize temperatures, regulate water flow, suppress marshes, ensure public health and protect us from foreign invasions.”<sup>37</sup>

This predisposition to view the floods as a consequence of deforestation did not mean that there was a consensus on how to respond. Leading up to the 1860 law, state engineers and foresters jockeyed over which administration, the *Ponts-et-Chaussées* or *Eaux-et-Forêt*, was better suited to deal with the problem of flood control. Despite the rapid ascension of Surell’s text to sacred status among foresters, many engineers remained skeptical of the link between flooding and deforestation. One engineer went so far, in an address to the Academy of Science in 1857, to argue forests promoted rather than retarded floods, acting less like a sponge than a giant umbrella!<sup>38</sup> This reluctance to embrace deforestation discourse reflected the institutional role of the Administration within

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<sup>36</sup> *Moniteur Universel*, 29 June, 1856.

<sup>37</sup> J. Clavé, “Le reboisement et le régime des eaux en France,” *Revue des Deux-Mondes*, 1 February 1859.

<sup>38</sup> Frédéric Fesquet, “Un corps quasi-militaire dans l’aménagement du territoire : le corps forestier et le reboisement des montagnes méditerranéennes en France et en Italie aux XIX et XX èmes siècles.” (PhD diss., Université Paul Valéry- Montpellier III, 1997), 67

the French state. As the traditional guardians of the nation's waterways, *Ponts-et-Chaussées* engineers focused primarily on the construction of downstream dikes and embankments. If reforestation became the new form of flood control, it would mean the drying up of state funds for these projects. During the 1850s, there was growing sentiment, not least from the Emperor, that the Administration should extend its activities upstream, building dams, reservoirs and embankments along the upper reaches of tributaries.<sup>39</sup> Flush with expanded powers and increased funds after the floods, the Administration had an opportunity to alter its flood control policies. Instead, responding to public pressure, it concentrated its efforts on the repairing of dikes around important provincial cities and towns. Lyon, Arles, Avignon and Tarascon along the Rhone and Lyon, Nevers, Blois, Angers and Tours along the Loire were the main beneficiaries of this frenzy of public works.<sup>40</sup> For *Ponts-et-Chaussées* engineers, protection downstream won out over prevention upstream.

Engineers found their hydraulic authority challenged by the growing number of reforestation proponents. State foresters emphasized the unique conditions of alpine regions to assert their expertise as managers of natural risk and the legitimate caretakers of the mountain. In 1853, a *conservateur des forêts* for Grenoble, M. Hun, invoked Surell's distinction between mountains and plains to illustrate the proper horizons of each administration in regards to the problem of torrential flooding. While the purview of engineers, he wrote, should be the "rich and populous valleys" where the expense of technical works "is not out of

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<sup>39</sup> Louis Girard, *La politique des Travaux publics du Second Empire*, 235; *Moniteur Universel*, 22 July, 1856.

<sup>40</sup> AN F14 16575, Béhic, "Rapport à Sa Majesté l'Empereur sur les inondations de 1856."

proportion with the value of properties to be protected”, foresters were best suited for the work in the mountains where restoration efforts focused on the regeneration of plant life, modest technical works and the surveillance of local populations.<sup>41</sup> Though an engineer himself, Surell, too, had noted that engineers seemed ill-equipped to deal with the problem of alpine torrents: “passive” engineering works, he thought, were no match for the “active” power of forests.<sup>42</sup> The relief aid commission established after the 1856 floods could not help but speculate on whether the system of dikes established by Ponts-et-Chaussées engineers in fact *contributed* to the floods: “In the end, have not dikes themselves, public or private... narrowed the channels of rivers and aggravated the dangers that they were designed to prevent?”<sup>43</sup>

The law of 1860 marked a decisive victory for the Forestry Administration and its conceptions of risk and resource management. The appeal of reforestation had much to do with cost. In contrast to the hundreds of millions of francs estimated by engineers for a system of alpine flood control, the first decade of reforestation cost the state a mere ten million francs. While it granted the Forestry Administration broader powers of intervention, the law clearly did not foresee huge public expenditures. With such a limited budget, the law proposed a carrot and stick approach to regenerating alpine forests. The first three articles attempted to entice local communities and individuals to reforest their lands, which the law defined as *travaux facultatifs*, through an array of subsidies in the form of seeds, cash, and tax exemption. If local initiative failed to materialize,

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<sup>41</sup> Quoted in Fesquet, “Un corps quasi-militaire,” 277.

<sup>42</sup> Surell, *Etude sur les torrents*, 165.

<sup>43</sup> *Moniteur Universel*, 29 June, 1856

articles 4 through 6 authorized the state to undertake mandatory reforestation or *travaux obligatoires* in designated areas where the dangers of flooding or extent of deforestation were deemed a threat to the public good. The costs of these projects would have to be reimbursed through either payment or cession of lands within a given time period.<sup>44</sup>

Historians have tended to view the law as an illustration of the coercive and authoritarian power of the Second Empire state. Specifically, they point to the provisions of expropriation granted to forestry agents whereby local property owners as and communes could be forced to cede portions of their land to the state if they were deemed a “public” threat. By extending the principles of public utility and expropriation already well-established in matters of public works to reforestation projects, the law provided the state with greater powers of intervention into local resource management.<sup>45</sup>

In many ways, however, the 1860 law was inspired as much by caution and compromise as coercion. From the very beginning, political and financial considerations made it clear that a successful policy of alpine reforestation would require the support of local populations. With the specter of the 1848 uprisings fresh in their minds, many legislators were wary of establishing any legal precedent that imposed collective interests over individual rights, particularly property rights. There was considerable debate within the special commission assigned to study the project over the precise limits of state intervention.

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<sup>44</sup> Pierre Fourchy, “Un Centenaire Oublié: Les lois du 28 juillet 1860 et 8 juin 1864 sur le reboisement et le gazonnement des montagnes,” *Revue de Géographie alpine* 51 (1963); Whited, *Forests and Peasant Politics in Modern France*, 59-63.

<sup>45</sup> Corvol, *L'Homme aux Bois*, 343, 361; Whited, *Forests and Peasant Politics*, 84-5.

According to the key drafter of the law, Eugèn Chevandier de Valdrôme, many members voiced fears that the basic rights of private property would be subverted by a law that, in its extreme form, came dangerously close to the socialist excesses of 1848.<sup>46</sup> State foresters were often exasperated by the cautious approach of legislators. Their “repugnance” of the principle of expropriation, the Director of Forestry Administration Louis-Henri Vicaire lamented, hamstrung reforestation efforts by depriving local forestry agents of the threat of coercion.<sup>47</sup> He was right. During the first two decades of state reforestation, recourse to expropriation was rare, accounting for only one percent of perimeters.<sup>48</sup>

The coercive elements of the 1860 law were also tempered by a general sentiment that the provocation of local populations was counter-productive to the goals of reforestation. In an 1861 circular to the prefects of targeted departments, the Minister of Finance underlined the importance of local support:

It is vital that all necessary measures be taken to ensure that the operation of reforestation is accepted by the people. In the mountains regions, pastoral traditions will have difficulty reconciling with reforestation which requires the suppression of over-grazing and the restriction of pasturage. Increasing the productivity of pasturage while proceeding, on the other hand, with the work of reforestation would be, in my view, the most effective way to satisfy all parties.<sup>49</sup>

As Vicaire himself pointed out, while the *threat* of coercion was important, actual recourse to expropriation and mandatory forestation should be a last

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<sup>46</sup> Chevandier de Valdrôme, “Rapport fait au nom de la Commission chargée d'examiner le projet de loi relatif au reboisement des montagnes” (1860), quoted in Fourchy, “Un Centenaire Oublié,” 30.

<sup>47</sup> Vicaire, *Le Moniteur Universel*, 20 February 1864.

<sup>48</sup> Fesquet, “Un corps quasi-militaire,” 458.

<sup>49</sup> AN F10 2314, Minister of Finance to the Minister of Agriculture, Commerce and Public Works, “Communication de projets de reboisement de montagnes auxquels se rattacheraient utilement des améliorations de terrains communaux,” 13 December, 1862.

resort. It risked not only inflaming local opinion but also bloating the forestry budget beyond its limits. The ten million francs allocated for its budget paled in comparison with the credits supplied to the Emperor's primary concerns, railways and the reconstruction of Paris. Even the scaled-down ambitions of the final law, which had a more practical goal of reforesting 100,000 hectares, could not possibly be met with an expenditure of a mere 100 francs per hectare.<sup>50</sup> Furthermore, attempts to provide incentives for reforestation were crippled by the lack of investment interests that served as the engine of other territorial improvement schemes. Alpine forests were not, by and large, destined for timber and paper production. Indeed, the productivist logic that lay at the heart of forestry science- where trees became measurable and, hence, controllable commodities free of customary and local attachments- was ill-equipped to address the problem of alpine deforestation.<sup>51</sup> To permit the state to undertake the works, as the 1860 law planned, would leave communes in the unenviable position of having to reimburse the state, with an average of 5% annual interest, in order to recover the use of their lands, or face the loss of 1/2 of their reforested lands or 1/4 of their regenerated pasturage. "Is it any wonder," a 1869 report from Society of Agriculture asked, "that the bill, when received, would not be accepted graciously?"<sup>52</sup> Coercion, it seemed, was simply too expensive.

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<sup>50</sup> Vicaire, *Le Moniteur Universel*, 20 February 1864.

<sup>51</sup> In this sense, alpine reforestation differed significantly from the German "scientific" forestry identified by James Scott as a key tactic of state control. James C. Scott, *Seeing like a state*, 11-22.

<sup>52</sup> Quoted in P. Chevallier and M.-J. Couailhac, *L'Administration des Eaux et Forêts dans le département de l'Isère au XIXe siècle: sauvegard et reconstitution du patrimoine* (Grenoble, CRHESI, 1983), 84.

To gain local support, which Vicaire and others acknowledged was essential, the state had to appeal not to material gains as much as a collective sense of responsibility towards the 'public good'. The task that lay before the Forestry administration, Vicaire would later write, was to convince local populations to see themselves as part of the public interest that was being claimed: "The works of reforestation being destined in part to preserve the valleys from the dangers of flooding, the inhabitants of the upper reaches of the mountains ask, not without some foundation, why one would impose on them the privations without compensations for improvements the fruits of which the lower valleys would reap."<sup>53</sup> For alpine communities, forests were not abstract resources destined to serve a distant and elusive 'public good' but rather integral components of an agro-pastoral landscape.

### *Disciplining the Mountain: Reforestation perimeters and local society*

The initial results of the reforestation campaign were mixed. State forestry agents found some success, at least early on, convincing landowners to undertake voluntary reforestation with the help of subsidies. Three years into the campaign, an estimated 29,000 hectares had been reforested, mainly in the Massifs Centraux and Alps. The departments of Puy-de-Dôme and the Vaucluse were particularly active, accounting for nearly 20% of all reforested lands between 1862 and 1874.<sup>54</sup> Visiting the Luberon region in the Vaucluse in 1864,

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<sup>53</sup> Vicaire, *Moniteur Universel*, 20 February 1864.

<sup>54</sup> Fesquet, "Un corps quasi-militaire," 446.

the Director of Forests Vicaire marveled at the transformation of 800 hectares of previously barren rock and scrub into a fledgling forest of hardy Aleppo pines.

“To he who has seen the seedlings of the Luberon”, Vicaire enthused, “no reforestation should appear impossible.”<sup>55</sup>

Forestry agents, however, could not conceal the widespread rejection of communes to reforestation. The *enquête agricole* of 1866 reflected the general tenor of local populations in the southern Alps towards reforestation. The representative from Sisteron, a colonel Réguis, firmly declared that the “demands of the Forestry administration have been the cause of all the ‘popular emotions’ of late in the region” while an Inspector of Forests at Digne was forced to admit that “reforestation is not popular in the mountains.”<sup>56</sup> Accounts of popular manifestations, nurseries and plantations being raided and destroyed, forestry guards and workers threatened and structures attacked were not uncommon. In April 1864 locals destroyed plantations and threatened reforestation worker in the communes of Orres and St. Saviour in the department of the Hautes-Alpes in 1864, not far from where Surell had composed his reforestation manifesto. Violent confrontations, however, were relatively rare, in stark contrast to the turbulent years following the establishment of the Forest Code.<sup>57</sup>

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<sup>55</sup> Vicaire, *Moniteur Universel*, 20 February 1864. The Aleppo Pine, also known as the Jerusalem Pine, was a favorite species of forestry agents in the Mediterranean south of France as well as of the colonial forest service in Algeria, which supplied its metropolitan counterpart with inexpensive seeds for reforestation efforts, collected by colonial labor.

<sup>56</sup> Quoted in R. Blanchard, “Déboisement et reboisement des Préalpes du Sud,” 387.

<sup>57</sup> Violent incidents appear to have been more common in the Pyrénées than the Alps, where memories of the hostilities between state agents and locals over the imposition of the Forestry Code in the 1830s and 1840s were still fresh. For more on the complex reception of forest policy in the Pyrénées, Whited, *Forests and Peasant Politics*.

By far the most common encounters between foresters and locals occurred over the creation of reforestation perimeters. It was here where the efforts of the state to inscribe a new disciplinary space of conservation onto local environments were most evident. As the first and most important step in the reforestation process for a given area, the creation of a perimeter followed a carefully prescribed script. Once they identified an active torrent, forestry agents would trace a 'conservation zone' or *zone de défense* around it, encompassing its basin, channel and mouth and extending around each secondary and even tertiary torrent. Because of their finger-like extension, the zones around adjacent torrents knit together into a fairly continuous perimeter, frequently abutting perimeters in other communes. The goal of this structure was to consolidate reforestation efforts, which was as much a protective as an economizing measure. Dispersed perimeters required more surveillance and there were never enough forestry agents to go around.<sup>58</sup> Once a reforestation perimeter was determined by forestry agents, it had to pass through a gauntlet of municipal councils, *arrondissement* councils, general councils and departmental commissions and prefects before it was authorized by the *Conseil d'Etat*.

The most charged part of this process was the presentation of the proposed perimeters to the municipal council which held an inquiry of its own to establish the view of the commune. The prefect frequently called on the justice of the peace to lead the inquiry in the hopes that he would be in the best position to convince local populations of the public utility of the project. In 1864, the prefect

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<sup>58</sup> Prosper Demontzey, *Traité pratique du reboisement et du gazonnement des montagnes* (Paris: J. Rothschild, 1882), 41-46

of Isère wrote the justice of the peace in Clelles, requesting him to oversee the inquiry, explaining that “[s]uch projects are not always well-understood by our alpine populations and generate among them apprehensions or fears that would be wise to dissipate as soon as possible.”<sup>59</sup> Officials were right to be concerned. Only one of the 264 reforestation perimeters encompassing 140,600 hectares created by 1864 was approved by a municipal council.<sup>60</sup>

While an unfavorable response by the municipal council could not block the authorization of mandatory reforestation- they enjoyed only the right of consultation- communes had other means of resistance. Mayors and municipal councils frequently turned the bureaucracy of reforestation to their advantage, dragging the process out by stalling, failing to submit or sign required documents, refusing to post notices of expropriation.<sup>61</sup> A favorite tactic was impeding perimeter surveys by withholding, or at least not making readily available, records of property lines, always notoriously difficult to pin down. Foresters complained of having to spend countless hours rummaging through departmental archives in search of property records.<sup>62</sup>

### *The “Ruined” Commons: Pasturage, property, and the public good*

The wide-spread rejection of reforestation perimeters by local communities stemmed from one basic truth: they removed valuable pasture from

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<sup>59</sup> *ibid.*, 89.

<sup>60</sup> Fourchy, “Un Centenaire Oublié,” 34-5.

<sup>61</sup> Fesquet, “Un corps quasi-militaire,” 482-3.

<sup>62</sup> Demontzey, *Traité pratique*, 41-46.

the local economy. As it had been in the first half of the nineteenth century, the key source of friction between state agents and local inhabitants was the viability of the collective property regime to manage local resources. For proponents of reforestation, extensive shepherding was inimical to healthy forests. Surell and Blanqui had both singled out communal pasturage as the most glaring human contribution to deforestation. The over-grazing of alpine pastures, they argued, led inevitably to reduced tree and grass cover, increased erosion and, ultimately, torrential flooding. While local sheep herds contributed to this environmental degradation, migrating or transhumant herds were considered the real threat. Local municipal councils, desperate for additional revenue, were too profligate with their leases, allowing provençal herds during the summer months to overrun the mountains like swarms of locusts. M.A. Mathieu, a professor of natural history at the *Ecole forestière* who toured reforestation perimeters in the southern Alps in 1864, highlighted the abuses of communal property by comparing it with the virtues of private property: “Private property has typically been exploited with moderation and foresight and wherever it is sufficiently developed, the land assumes a cheerful aspect.” In contrast, communal property “has been devastated through abuse...[and] [w]e now understand not only the vicious exploitation of communal property but also the extent of the disasters it occasions.”<sup>63</sup> By disrupting the equilibrium between mountain and plain through abusive pasturage and deforestation, local communities had unleashed upon

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<sup>63</sup> M.A. Mathieu, *Le reboisement et le regazonnement des Alpes* (Paris, Typographie Hennuyer et Fils., 1865), 11, 14; Demontzey, *Traité*, 61-65.

both themselves and the downstream public the plague of erosion and catastrophic flooding.

The lens of local abuse that colored much of the reforestation campaign made it difficult to attribute what one today might call “ecological rationality” to *montagnards*. Though varying from region to region, even valley to valley, alpine economies depended on the symbiotic relationship between cultivation and husbandry. In this agro-pastoral order, communities maximized agricultural production from the relatively poor soils of valley and terrace through the intensive application of manure collected from their livestock. Sheep were the preferred agents of excrement as they were both highly mobile, able to reach distant mountain pastures, and could survive on the meager sustenance they found there. Without the fertilizer provided by the herds, the cultivation of subsistence grain crops in these harsh climates was unsustainable.<sup>64</sup>

Communal pasturage was the key resource in these local economies.<sup>65</sup> The seasonal migration of sheep from cultivated valley to upland pasture, known as *estivage*, was essential in environments where scarce arable land made the production of forage difficult. Between valley and alpine pasture lay the intermediate slopes that provided the crucial seasonal resources of spring and fall pasturage, before and after the access to summer pasturage. A vital resource in the local subsistence economy, communal pasturage was also integrated in the market economy. Landowners and communes could reap significant rents

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<sup>64</sup> Phillippe Arbos, *La vie pastorale dans les Alpes françaises, étude de géographie humaine* (Paris: A. Colin, 1922), 541.

<sup>65</sup> Departments in the southern Alps had some of the highest percentages of communal lands in France. In 1863, 51% of the territory of the Hautes-Alpes and 25% in the Basses-Alpes was regarded as communal pasture and waste. Arbos, *La vie pastoral*, 75.

from leasing summer pasturage to the great migrating herds of the southern French plains. The seasonal movement or *transhumance* of sheep helped link together plains and mountains in Mediterranean France. Until well into the 19<sup>th</sup> century, the ancient patterns of transhumance had changed very little. Torrid summer heat and aridity drove the herds from Bas-Languedoc, Rousillon and, above all, Provence into alpine pastures green from the spring-melt. Each summer, the ancient paths know as *drailles* or *carraïres* became busy with the traffic of *scabots*, large herds of 500 to 2000 sheep, goats and mules. The isolation of alpine communities well into the 19<sup>th</sup> century ensured that they remain wed to their traditional methods of production. As long as fertilizer was too costly to import and grains too costly to export, there was little chance local communities would turn away from their dependence on subsistence agriculture and communal pasturage.<sup>66</sup>

The bias against local society embedded in deforestation discourse was not lost on some interested observers. Zéphyrin Jouyne, a wealthy property owner and member of the *Société d'Agriculture* in the Basses-Alpes, criticized what he saw as the erasure of local inhabitants in official representations of the ruined mountain. Catching wind of the proposed law on reforestation following the report of Blanqui, Jouyne had condemned it as an outright assault on local alpine economies which threatened to deprive “communes of their mountains” by submitting pasturage to the regulation of the Forestry Administration. Blinded by a “northern” vision of productive plains and cattle pasturage, visitors to the Alps

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<sup>66</sup> Arbos, 149-150; Abel Artaud, “La transhumance dans les Basses-Alpes,” *Annales de Haute-Provence* 227-8 (1961), 263-287.

failed to perceive the logic of agro-pastoral practices.<sup>67</sup> As fellow southern and critic of reforestation, Charles de Ribbe, pointed out, the Forestry Administration had “confused the Midi for North”, only able to see the southern mountain in terms of the northern plain.<sup>68</sup>

Though it certainly structured perceptions of the alpine landscape, the prejudice against collective property common among reforestation proponents did not entirely blind them to the realities of local society. The harsh condemnation of alpine peasants was tempered by the acknowledgement of their poverty, isolation and desperation. Surell understood the central economic function of pasturage in the sparse and relatively infertile alpine region. Though sheep posed a direct threat to the future of alpine forests, the question was not one of elimination but regulation, “of proportioning them to the actual resources of the region.”<sup>69</sup> Blanqui, too, was reluctant to attribute local abuse to mere ignorance and irrationality, viewing the problem as a vicious circle propelled by poverty and insecurity.<sup>70</sup>

The rhetoric concerning the evils of pasturage tended to outstrip actual practices. In his tour of reforestation sites shortly after the passage of the 1860 law, Director of Forest Vicaire stressed to prefects and foresters the importance of alpine pasturage to local communities. For reforestation policies to succeed, they had to be combined with efforts to regenerate degraded pasture, if only as a

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<sup>67</sup> Z. Jouyne, *Reboisement des Montagnes* (1850), quoted in D. Ponchelet, “Le débat autour du déboisement dans le département des Basses-Alpes, France,” *Revue de Géographie alpine* 1 (1995), 61.

<sup>68</sup> Charles de Ribbe, *La Provence au point de vue de bois, des torrents et des inondations avant et après 1789* (Paris, 1857), 32.

<sup>69</sup> Surell, *Etude sur les torrents*, 217

<sup>70</sup> D. Ponchelet, “Le débat autour du déboisement,” 57-8.

tactic to “render alpine populations sympathetic to the operation of reforestation.”<sup>71</sup> He reminded foresters that they should choose their sites carefully, avoiding areas where stiff resistance was expected: “The work of reforestation being unable to succeed unless it obtains the sympathies of local populations, one must not pass up any opportunity that might lead towards this goal.”<sup>72</sup> Vicaire’s concern that reforestation policies account for local pasturage interests was echoed by a forestry agent at Nîmes, who conceded in a report to his superior that “pasturage is a vital question in the Midi. Far from attacking it, we must enlarge it as much as possible...It is important to prove to local populations that silviculture and agriculture, far from harming each other, can help each other attain the common goal of maximizing the production of the land.”<sup>73</sup>

In 1864 the *Corps législatif*, following the prescriptions of Vicaire, passed a law authorizing the substitution of reforestation with the regeneration or *regazonnement* of pasturage in certain instances. In situations where the state undertook the restoration works, the property owner, individual or commune, could pay off their debt through the cession of one-quarter rather than one-half of their property. In addition, funds were made available for communes as indemnities for the restriction of pasturage rights for given amount of time.<sup>74</sup>

An attempt to better calibrate reforestation to local conditions and avoid conflict, the law on *regazonnement* proved largely ineffectual. The regeneration

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<sup>71</sup> Quoted in Fourchy, “Un Centenaire Oublié,” 33.

<sup>72</sup> *Ibid.*, 31

<sup>73</sup> Quoted in Fesquet, “Un corps quasi-militaire,” 450-1.

<sup>74</sup> Fourchy, “Un Centenaire Oublié,” 36.

of pasturage, like reforestation, required the long-term restriction of pasturage and hence was unlikely to appear any more attractive to local communities. Deforestation discourse alternated between two different temporal registers, the imminence of catastrophe and the *long durée* of environmental repair. The timetables that foresters forecasted for regeneration had nothing to do with the lived time of locals. While 5 or 10 years of pasturage restrictions may have seemed a small price to pay for repairing what they viewed as catastrophic landscapes, it demonstrated a singular ignorance, if not contempt, for local realities. The dilemma was described in striking clarity by a Ponts-et-Chaussées engineer posted in the Basses-Alpes: “[T]he inhabitants understand the utility of reforestation for preventing future calamities caused by torrential flooding but what they understand even more clearly and which is most evident to them is that reforestation is a long-term undertaking which will bar them from the majority of their pasturage...The future affects them less than the present and the present for them is ruinous if they do not have unrestricted access to their pasturage.”<sup>75</sup>

Some foresters observed, somewhat wryly, that locals frequently used the new law as pretext for further resistance to any interference by the state. In the perimeter of Faucon in the Basses-Alpes, for instance, it was lamented that locals wielded the new law “like a weapon against reforestation.”<sup>76</sup> When in 1868 a revised plan for the perimeter was proposed to the municipal council, subtracting 584 hectares from reforestation in favor of pasturage improvement,

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<sup>75</sup> AN F10 2315, Chief Engineer of the Basses-Alpes, “Résultats de la statistique des cours d’eau,” 18 January 1862.

<sup>76</sup> *Reboisement des montagnes. Compte rendu des travaux de 1869 à 1874* (Paris: Imprimerie nationale, 1875), 5.

which accounted for nearly 85% of the total perimeter, the council rejected it. As the Forestry report notes, this hardly demonstrated any local sympathy for the work of reforestation but rather the “hope, nourished by a handful of leaders” that it would succeed in having the entire lot removed from the perimeter and the declaration of public utility revoked.<sup>77</sup>

Efforts to incorporate pasturage into visions of alpine regeneration hinted at the weak underbelly of all reforestation efforts. The project of alpine reforestation had set itself the difficult task of trying to ‘rationalize’ local users and their environments through appeals to a conception of the public that effectively erased them from the equation. By removing land both from the subsistence agro-pastoral economy and the limited cash economy of transhumant pasturage, reforestation perimeters essentially evacuated the local from the mountainside. Given the close relation between pasturage and local subsistence and income, it is hardly surprising that local alpine populations regarded reforestation efforts with skepticism, if not outright hostility.

## *Conclusion*

The project of alpine restoration begun under the Second Empire was one of the most ambitious attempts at environmental engineering of the nineteenth century. It rested on a notion of degradation that attributed recent deforestation and its presumed consequence, catastrophic flooding, to irrational local practices of land clearance and communal pasturage. While this discourse of

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<sup>77</sup> Ibid., 6.

deforestation became a powerful means by which the state sought to incorporate the mountain into its vision of a rationalized national territory, it failed to garner the support of local inhabitants, for whom pasturage rights were an essential feature of both the local economy and their status as citizens of the nation.

However, to dismiss alpine reforestation as merely a technology of environmental control is to lose sight of the more subtle negotiations that went on between state and local society. In particular, by casting alpine forests as an instrument of the public good, state agents, perhaps in spite of themselves, opened up a dialogue between periphery and center over the proper management of natural resources that, in truth, were both local and national.

## Chapter Three Negotiating Modernity in the *Landes de Gascogne*

### *Introduction*

The *Landes* was arguably the most famous “invented” landscape of nineteenth-century France<sup>1</sup>. Alongside the project of alpine restoration, the creation of the *Landais* forests stood as the Second Empire’s most ambitious attempt at environmental transformation. In 1857, the Corps Législatif passed a law on the “regeneration” of the *Landes*. Part of the Second Empire’s aggressive campaign to rationalize national territory, it ordered privatization, drainage and forestation of 300,000 hectares or more than 1100 square miles of communal pasturage and subsidized a major rail line and hundreds of kilometers of rural roads. For many, it symbolized the victory of an enlightened state over a sterile wasteland. The *Landes* was nature’s rebuke of the French nation, “a kind of domestic Sahara that distresses and fatigues all the voyagers who travel through the south of France.”<sup>2</sup> The law, one député extolled, offered “a precious

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<sup>1</sup> To avoid confusion, the terms “*Landes*” (italicized) refers to the region known as the *Landes de Gascogne* whereas the “Landes” (not italicized) refers to the department. The “*landes*” (lower-case, italicized) refers to the communal moors, namesake of the region.

<sup>2</sup> Quoted in Jules Chambrelent, *Les landes de Gascogne, leur assainissement, leur mise en culture, exploitation et débouchés de leurs produits* (Paris, 1887), 22. Colonial analogies were frequent in descriptions of the *Landes* and proved remarkably durable. A traveler in 1911 commented how “interesting it would be recount the history of this portion of France long-considered our African Sahara...[Especially] for those committed to our North African

conquest...ten times greater than Algeria.”<sup>3</sup> In his speech welcoming the Emperor to the region in 1857, Charles Corta, député of the Landes, praised his “peaceful conquest of an interior colony.” In several years, he predicted, “the desolate aridity of deserts that Your Majesty just crossed will become...by the cultivation and spread of the rich forests, with their deep roots and powerful limbs, the symbol of the Napoleon dynasty in France!”<sup>4</sup> The plaque planted at the entrance to the imperial estate of Solférino, established in 1857 as a ‘model’ farm in the midst of the *Landes*, testified to the regime’s ideology of benign conquest.<sup>5</sup> Below the imprint of the Emperor’s boot, an inscription read: “To Napoléon III, the first sovereign to step foot on this arid land to improve and regenerate it.”<sup>6</sup> In the *Landes*, the march towards civilization was through the wasteland.

Regional historians have challenged this legacy of state intervention. In 1949 Roger Sargos published an exhaustive history of the *Landais* forests.<sup>7</sup> A forester and prominent landowner in the region, Sargos argued that the role of the French state in the transformation of the region was more mythical than real, the product of political fantasy and rhetoric that portrayed the state (both imperial

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possessions, it would be a source of great interest and an encouraging lesson.” J.-H Ricard, *Au Pays landais* (Paris, 1911), 11.

<sup>3</sup> Quoted in Dominique d’Antin de Vaillac, *L’Invention des Landes: L’Etat français et les territoires* (Paris: L’Harmattan, 2008), 151.

<sup>4</sup> Archives départementales des Landes (hereafter ADL) 1M 358, *Journal des Landes*, 27 August 1857.

<sup>5</sup> Tellingly, the estate was named after one of great battles of the imperial army during its campaign in the Italian states.

<sup>6</sup> ADL 1M 358, *Journal des Landes*, August 27, 1857. It is interesting to note the symbolic association here with the *rois thaumaturges* or ‘healing kings’ of the medieval and early modern period. While they claimed the power to heal the terrible skin disease known as *scrofula* through the ‘royal touch’, Napoleon III claimed the power to heal the sick wastelands (whose inhabitants were famously afflicted with high rates of malaria and *scrofula* ) through the ‘imperial boot’.

<sup>7</sup> Roger Sargos, *Contribution à l’histoire du boisement des Landes de Gascogne* (Bordeaux: Delmas, 1949).

and republican) as the great savior of the *Landes*. The real heroes in this story, according to Sargos, were the *Landais* themselves, who had patiently improved the land through drainage and forestation for generations prior to the appearance of an eager state. State intervention not only drew on models of local management that it did not acknowledge, but it also claimed success for a transformation already underway. “The *Landais* forest,” Sargos declared, “is not the ‘creation of state power’ but the result of the effort and thrift of 8 to 10 generations of landowning peasants.”<sup>8</sup> Subsequent histories of the *Landes* have, to greater or lesser degrees, picked up where Sargos left off, excavating the region’s history from the rubble of national myths.<sup>9</sup> As the historian Jacques Sargos, Roger Sargos’s grandson, writes, “[t]he celebration of a glorious conquest, of a victory over the primitive world, has, until recently, obscured the existence and role of local society. It is hardly the *Landais* themselves that one needs to decolonize but rather their memory.”<sup>10</sup>

This chapter argues that the opposition between state and local society that appears in both official and revisionist narratives of the region obscures their fluid and reciprocal relationship.<sup>11</sup> The transformation of the *Landes* was a function of appropriation and collaboration as much as confrontation and

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<sup>8</sup> Roger Sargos, *Plan de sauvegarde de la forêt landais et de remise en valeur des Landes de Gascogne* (Bordeaux: Delmas, 1949), 1.

<sup>9</sup> Among key works on the *Landes*, see J. Sargos, *Histoire de la forêt landaise*; Jean Cailluyer, *Regards sur l’histoire sociale des Landes* (Toulouse: Eché, 1983); Louis Papy, *Les Landes de Gascogne et le Côte d’Argent* (Toulouse, 1978); Charles Bouchet, *Lugos, commune des Landes de Gascogne*; and Bernard Manciet, *Le triangle des Landes* (Paris: Arthaud, 1981).

<sup>10</sup> J. Sargos, *Histoire de la forêt landaise*, 71.

<sup>11</sup> Several recent works on the *Landes* have, to varying degrees, broken free of this local-state dichotomy. See Alice Garner, *A Shifting Shore: Locals, outsiders, and the transformation of a French fishing town, 1823-2000* (Ithaca: Cornell University Press, 2005) and Dominique d’Antin de Vaillac, *L’Invention des Landes*.

coercion. As an uncertain instrument of social and environmental change, subject to local re-calibration and resistance, forestation in the *Landes* illustrates the negotiated path of modernization at the periphery. State intervention and local invention were bound together, each shaping the contours and horizons of the other. They were, to borrow Timothy Mitchell's terminology, less a cause of transformation than its "effect", the outcome of material and discursive exchanges among multiple groups as they sought to shape the outcomes of forestation.<sup>12</sup>

Property relations were critical sites in the negotiation of environmental claims in the *Landes*. The rapid transformation of a largely agro-pastoral and subsistence economy into a highly-regimented capitalist economy of resin and timber production entailed the radical re-ordering of social, spatial and environmental orders, often in unpredictable ways. The fulcrum of this headlong rush into modernity was the privatization of the vast communal moors. This abrupt shift in property relations became the crucial interface between state and local society in the *Landes* as groups struggled to control the economic, social and environmental implications of forestation.

A deep suspicion of the commons informed both the justification and the course of state intervention in the *Landes*. In vogue since the eighteenth century,

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<sup>12</sup> As Mitchell writes, "[t]he line between state and society is not the perimeter of an intrinsic entity, which can be thought of as a free-standing object or actor. It is a line drawn internally, within the network of institutional mechanisms through which a certain social and political order is maintained." Yet, he points out, this 'difference' between state and society is no less real for being produced: "[P]roducing and maintaining the distinction between state and society is itself a mechanism that generates resources of power." Timothy Mitchell, "The Limits of the State: Beyond Statist Approaches and Their Critics," *American Political Science Review* 85, no. 1 (1991): 90. For an extended discussion of the relationship between culture and state-making, see *State/Culture: State-Formation after the Cultural Turn*, ed. George Steinmetz (Ithaca: Cornell University Press, 1999).

critiques of the collective property regime became a rallying cry for the transformation of a landscape dominated by communal moors. Proponents of forestation depicted the region as sterile, insalubrious and backward, legitimizing state intervention in the name of privatization and progress. As in the case of alpine reforestation, this idea of the “catastrophic” commons constituted a narrative of environmental degradation that recast the *Landes* as a wasteland in need of redemption.

In the *Landes*, however, the discourse of property rights that initially united the state and local elites in the project of forestation proved unstable. New lines of fracture developed as local landowners and investors eventually broke with state engineers and officials over the problem of the collective management of private forests. The small farmers, sharecroppers and shepherds that made up the bulk of rural society also began to resist the appropriation of communal lands by local elites, defending the collective rights of pasturage that underpinned the agro-pastoral economy against privatization. Property claims, it seemed, served many masters. While they could be marshaled around the project of national integration and economic modernization, they also facilitated the expression (and even re-invention) of local identity and belonging.<sup>13</sup>

### *Les Landes: Narrating marginality*

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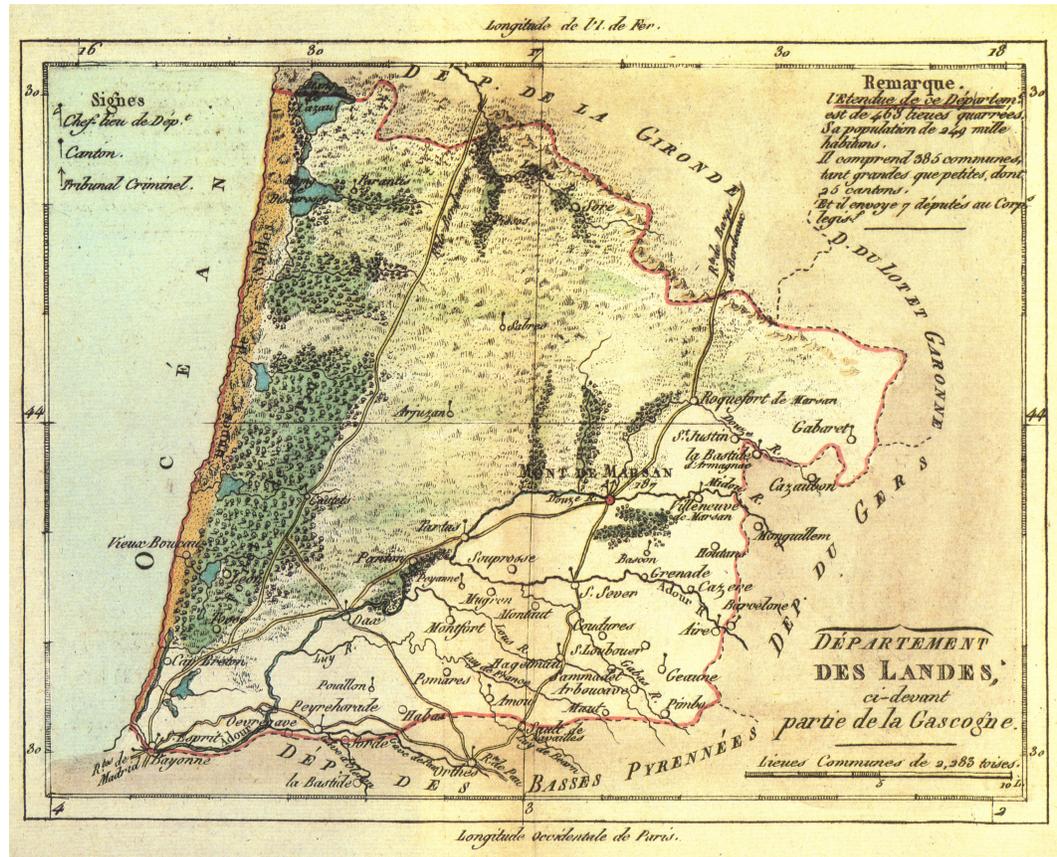
<sup>13</sup> On the narrative qualities of property ownership and the different ways it can be appropriated by social groups, see Carol M. Rose, *Property and Persuasion: Essays on the History, Theory and Rhetoric of Ownership* (Boulder: Westview Press, 1994), 11-45. For an anthropological approach to property ownership as a “language” of locality, see Jaro Stacul, *The Bounded Field: Localism and Local Identity in an Italian Alpine Valley* (New York: Berghahn Books, 2003), 54-62.

At first glance, the *Landes de Gascogne* appeared an unlikely candidate for state intervention. A triangular region bordered by the Atlantic ocean in the west and the Gironde and Adour rivers in the east, it straddles three departments: the Landes, the Gironde and the western edge of the Lot-et-Garonne. Along its perimeter, the *Landes* appeared much the same as other rural regions in France. Agricultural lands, vineyards and forests clustered around its major waterways and western coast. Yet it owed its name, and reputation, to the vast moors or *landes* that occupied much of its center, the aptly named *Grande Lande* (or *Lana Gran* in Gascon). The generally flat terrain, a product of marine and alluvial deposits since the Miocene, provided little natural drainage. During the rainy fall and winter months, much of the *Landes* became sodden and impassable, its few roads transformed into quagmires. Outside of the few larger towns such as Dax and Mont-de-marsan, a sparse agro-pastoral society characterized much of the region. Most rural inhabitants depended on subsistence crops of rye, millet, wheat and corn that, in turn, depended on the fertilizer collected from extensive sheep pasturage on communal *landes*. Locals practiced a form of transhumance that followed the rhythm of the seasons. In the wetter months, the flocks grazed on the prairies and fields that encircled the farms. When the summer heat came, the sheep were led out to the great communal moors to pasture.<sup>14</sup>

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<sup>14</sup> Annie Pinaud, "L'occupation du sol dans la Grande Lande au début du XIXe siècle," in *La Grande Lande. Histoire naturelle et géographie historique*, edited by A. Klingebiel and J.-B. Marquette (Paris: CNRS, 1981), 305-314.

Figure 2. Eighteenth century map of the *Landes*.



The productive logic of this agro-pastoral landscape rarely registered to outside observers. In travel narratives, investment brochures and administrative reports, the *Landes* flickered as a phantasm of exotic desolation. Its seasonal extremes—now scorched, now submerged—lent it a surreal and liminal quality. At times it was likened to the great Sahara, a burning wasteland of shimmering mirages and endless horizons.<sup>15</sup> Its features struck observers as distinctly un-

<sup>15</sup> Bernard Traimond, "Mythologie de l'Aménagement des Landes," in *Milieu naturel, techniques, rapports sociaux*, ed. C. Raynaud (Paris: Editions du C.N.R.S., 1983), 39-47.

French, “a desert where the Gallic cock could only sharpen its claws.”<sup>16</sup>

According to one astonished visitor in 1837, the *Landes* “was as unknown as the deserts of Kamchaka or the sands of Libya.”<sup>17</sup> At other times, the region appeared as a foul marshland. One agricultural company in 1822 reasoned that, since the communal moors were of a marine rather than terrestrial nature, they belonged to the public domain and could be sold to private investors by the state!<sup>18</sup>

Local inhabitants, like their landscapes, struck observers as strange and otherworldly, particularly the *pasteurs* or shepherds who roamed the communal moors. If the *Landes* was the ‘Sahara de l’Aquitaine’, the *pasteur* was its “Bédouin.”<sup>19</sup> Clad in sheepskins and astride stilts that facilitated travel over the marshy *landes*, the *pasteurs* could inspire curiosity, wonder or disgust. One often-cited travelogue from the 18<sup>th</sup> century exclaimed over their remarkable form of locomotion: “They make use of prodigiously long stilts...[yet] the agility of their gate is astonishing; a horse at trot could not follow them.”<sup>20</sup> For some, the *pasteurs* symbolized the degraded nature of the *Landes* itself. One observer described them as “cruel, barbarous and without pity...[the] missing link long searched for between man and monkey.”<sup>21</sup> On the eve of forestation, a traveler in 1857 remarked that “the half-savage race that stagnates in this desert blends

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<sup>16</sup> Ricard, *Au Pays landais*, 11.

<sup>17</sup> Vicomte d’ Yzarn Freissinet, *Coup d’oeil sur les Landes de Gascogne* (Paris, 1837), 15.

<sup>18</sup> Jacques Sargos, *Histoire de la forêt landaise*, 92.

<sup>19</sup> Anne-Marie Cocula, “Le Landais au XIXe siècle, ou l’homme prétendu quadrumane.” In *Milieux naturels et identités culturelles*, edited by Andrée Corvol (Paris: CNRS, 1993), 53-56.

<sup>20</sup> Jacques Grasset Saint-Sauveur, *Les Landes de Bordeaux. Moeurs et usages de leurs habitants. Suivi de Voyage dans le département des Landes, par Joseph Lavallée* (Paris: Editions Ulteira, 1988), 59.

<sup>21</sup> Quoted in Jean-Pierre Lescarret, “Parcs, bordes, parcours et bergers dans la Grande-Lande au temps de l’agro-pastoralisme,” *Bulletin de la Société de Borda* 123 (1998), 160.

tragically, through his scrawniness, his weakness and sickly pallor, with the harsh appearance of the *Landes*.<sup>22</sup>

**Figure 3. Shepherds of the *Landes***



Perceptions of the *Landes* as a ruined wasteland owed much to Enlightenment conceptions of nature and property. For 18<sup>th</sup> century agronomists and physiocrats, cultivated nature represented the main source of national

<sup>22</sup> Mary-Lafon, "Coup d'oeil sur les Landes en Chemin de Fer." *Revue d'Aquitaine et du Languedoc* 2 (1857-8): 538-541.

wealth.<sup>23</sup> Temperate plains and valleys where agriculture flourished were not only beautiful but productive, reflecting society's conquest over brute nature.<sup>24</sup> Cereal crops, vineyards and prairies were landscapes of reason. Unproductive lands, in contrast, were considered ugly, frightening and dangerous. Forests, mountains and marshlands posed a threat to the rational ordering of landscape.<sup>25</sup> The *Landes*, with its great swaths of unimproved moor, certainly appeared to most observers as representing this 'anti-nature'.

Negative attitudes towards the commons reinforced the wasteland image. In the *Landes*, officials blamed the communal regime for its degraded landscape. Baron d'Haussez, a prefect of both the Landes and the Gironde during his career, regarded the communal moors as the single greatest obstacle to progress in the region. Writing in 1826, he denounced the "deplorable collective regime, last vestige of centuries of barbarism, which still enslaves these immense plains." By inculcating selfish and abusive practices, he reasoned, communal lands prevented the development of a "love of property" that was the basis for any project of reclamation: "As long as the present mode of possession is conserved, the *landes* will consist of bleak deserts, dismal wastes, burning sands in the summer, swamps in the winter, a sick country all year round." If the most desolate and sterile regions of the *Landes* were to be fully integrated into the nation, one had little choice but to "destroy the system of communal property,

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<sup>23</sup> Yves Luginbuhl, "Sauvage-cultivé: l'ordre social de l'harmonie des paysages," in *Du rural à l'environnement: la question de la nature aujourd'hui*, eds. N. Mathieu and M. Jollivet (Paris: Harmattan, 1989), 42-49.

<sup>24</sup> Marie-Vic Ozouf-Marignier, "L'environnement vu par des notables locaux à la fin du XVIIIe siècle," in *Du Milieu à l'environnement: Pratiques et représentations du rapport homme-nature depuis la Renaissance*, ed. Marie-Claire Robic (Paris: Economica, 1992), 64-66.

<sup>25</sup> Marie-Noëlle Bourguet, "L'image des terres incultes: La lande, la friche, le marais," in *La Nature en Revolution, 1750-1800*, ed. Andrée Corvol (Paris, 1993) 17.

the remains of barbaric times, which is opposed to the progress of industry of all kinds.”<sup>26</sup>

*Ponts-et-Chaussées* engineers, the architects of the 1857 law, also harbored a deep suspicion of collective property.<sup>27</sup> Their technocratic vision of a rationalized and unified national territory, in which circulatory networks of roads, canals and rails underpinned agricultural and commercial prosperity, had little room for local custom, which they viewed as an obstacle to the common good.<sup>28</sup> Henri Crouzet, the head of the *Service hydraulique* in the Landes that oversaw the application of the 1857 law, condemned the collective property regime as an “abusive and barbaric mode of possession” that had “forever condemned these vast spaces to infertility, solitude [and] unhealthiness...”<sup>29</sup> Privatization and forestation, he argued, would release the region from the chains of an arcane and inefficient system of land management and usher in a new era of progress.

This “catastrophic writing” turned the *Landes* into a territorial blank slate of sorts.<sup>30</sup> If nothing (of value) was there, everything was possible. The devaluing of local landscapes and practices justified all manners of conquest. Beginning in the mid-18<sup>th</sup> century, numerous companies, backed by urban capital from Bordeaux and Paris, attempted to establish agricultural colonies in the region. Their high

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<sup>26</sup> Baron d’Haussez, *Études administratives sur les Landes, ou Collection de Mémoires et d’Écrits relatifs à la contrée renfermée entre la Garonne et l’Ardour* (Bordeaux: Gassiot, 1826), 14-18.

<sup>27</sup> Antoine Picon, *L’Invention de l’ingénieur moderne: L’Ecole des Ponts et Chaussées, 1747-1851* (Paris: Presses de l’Ecole nationale des Ponts et Chaussées, 1992), 299-307.

<sup>28</sup> Theodore Porter, *Trust in numbers: the pursuit of objectivity in science and public life* (Princeton: Princeton University Press, 1995), 124-5.

<sup>29</sup> AN F10 2338, Henri Crouzet, “Résumé des idées applicables à l’assainissement et à la colonisation des Landes du Golfe de Gascogne,” August 17, 1855. Established in 1846 as a special branch of the administration, the *Service hydraulique* was focused primarily on the extension of engineering expertise to the realm of agricultural production. Benjamin Nadault de Buffon, *Conférences sur les irrigations, le drainage, le dessèchement des marais, la fixation des dunes et autres travaux analogues* (Paris, 1850), 14-15.

<sup>30</sup> The phrase is borrowed from Cocula, “Le Landais au XIX<sup>e</sup> siècle,” 56.

tide came in the early 19<sup>th</sup> century, propelled by Legitimist aristocrats seeking a new source of economic security and social prestige following the Orleanist victory in 1830.<sup>31</sup> Investment brochures overflowed with edenic descriptions of future abundance, from crops of rice, potato and colza to pine forests and teeming fisheries, all connected through a network of roads, canals and even railways that guaranteed a secure outlet in Bordeaux.<sup>32</sup>

If the *Landes* had become, by virtue of its marginality, a land of possibility, it remained a difficult adversary. Most of the ventures failed miserably. Blinded by visions of plenitude and profit, investors overlooked the basic challenges posed by the region's geography. The poorly drained and isolated moors were no place for commercial agriculture. Companies regularly underestimated the costs of transportation, drainage, fertilizer and labor necessary to ensure a profitable return on their investments. Worse, land purchases frequently elided local claims of pasturage rights. Owners frequently found themselves contemplating not agricultural riches but collapsed drainage canals, burned plantations and uprooted crops.<sup>33</sup> Still, the lure of the region remained.

For the Second Empire state, the ruined *Landes* provided an ideal theater to demonstrate its modernizing prowess. Though it followed in the footsteps of earlier ventures, the law of 1857 diverged from their predominantly agricultural designs. Previous investors had failed largely because they had been unable to

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<sup>31</sup> For the role of Legitimism in 19<sup>th</sup> century agricultural improvement schemes, see Steven Kale, *Legitimism and the Reconstruction of French Society, 1852-1883* (Baton Rouge, Louisiana State University Press, 1992).

<sup>32</sup> Osmin Ricau, "Notes sur les défrichements, assèchements, mises en culture des landes de Gascogne, avant le XIXe siècle," *Bulletin de la Société de Borda* 101 (1976): 419-424. For an illuminating account of these ambitious schemes around the Arcachon basin, see Alice Garner, *A Shifting Shore*, 16-30.

<sup>33</sup> Garner, *A Shifting Shore*; Louis Papy, *Les Landes de Gascogne*, 52.

calibrate their ambitions to local conditions. Engineers and officials concluded that in the unforgiving environment of the *Landes* the only profitable investment was the cultivation of pine forests.<sup>34</sup>

So it was that the *pin maritime* became an unlikely agent of civilization. In short, it offered a precise antidote to the ruined *Landes*. By privatizing the 'barbaric' communal lands, forestation would teach local populations the benefits of careful management and rational exploitation, instilling the 'love of property' that Baron d'Haussez had found so lacking. A new market economy would develop through the export of resin and timber products, the revenues of which would not only enrich private landowners but swell communal coffers, funding schools, churches and roads. Finally, the pine forest would banish the unhealthy pall that hung over the *Landes*. The grid work of ditches overseen by state engineers would drain stagnant waters while the bracing perfume of resin would replace the noxious miasmas. The *Landes* would become a paragon of productivity and health.<sup>35</sup>

As state engineers and officials soon discovered, however, the transformation of the *Landes* required the support of local populations. While landowners quickly embraced the benefits of forestation, they did not always

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<sup>34</sup> It should be noted that the French state was no stranger to the region. In the late 18th century, it had dispatched royal engineers from the Ponts-et-Chaussées administration to stabilize the encroaching Atlantic dunes through the plantation of pine forests. For the bitter and long-lasting property disputes that it spurred, see Bernard Saint-Jour, *La Propriété des dunes du littoral gascon* (Pau: Princi Negue, 2004).

<sup>35</sup> The properties of resin, one of the 'good' smells cataloged by Alain Corbin, were appreciated particularly along the *Landais* coast where a lively sanatorium industry had developed since the mid-19<sup>th</sup> century for treating tuberculosis patients. Alice Ingold, "Forêt et côte landaises au secours des tuberculeux," in *Les Landes: Thermalisme et forêt* (Dax: Société de Borda, 1989), 431-435; Alain Corbin, *Le miasme et la jonquille : l'odorat et l'imaginaire social XVIIIe-XIXe siècles* (Paris : Aubier Montaigne, 1982).

agree on how, and at what rate, it should proceed. In debates over land sales and plantation practices, they demonstrated a shrewd awareness of their power to shape the terms of modernization.

### *La Forêt: Negotiating modernization*

Coupled with the forced sale of communal lands, the creation of drainage networks and the extension of roads and rails, pine forests became a powerful instrument of economic modernization that transformed local space and environment. Forestation effectively 'fragmented' the productive order and seasonal rhythms of agro-pastoral society which depended on the maintenance of and access to the communal *landes*. From its ruins, the forests forged a new social space, characterized by alienable private property and the ascendance of a new bourgeoisie.<sup>36</sup> Yet the fate of the communal *landes* remained ambivalent. While a new spatial order coalesced around the creation and management of private pine forests, it was inflected by remnants of the communal past.<sup>37</sup> Affective attachments to the agro-pastoral landscape persisted, whether in the form of popular acts of resistance against forestation or as a tactic of appeasement and social legitimization among recently enriched landowners increasingly at odds with both state officials and rural society. This overlapping of the spaces of private forest and communal *landes* revealed the degree to which

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<sup>36</sup> In this sense, the forested landscape represented the abstract and homogenous space that Henri Lefebvre and others have attributed to the capitalist state. See Henri Lefebvre, *La production de l'espace* (Paris: Anthropos, 2000) and David Harvey, *The Condition of Postmodernity* (Oxford: Blackwell Publishers, 1990), 254-55

<sup>37</sup> For Lefebvre, the transformation of social space is a process of accretion and interpenetration rather than outright destruction: "No space ever disappears in the course of growth and development. The global does not abolish the local." Lefebvre, *La production de l'espace*, 103

the transformation of the *Landes* remained a volatile and contingent affair, shaped by competing notions of property and belonging.

The great irony of the modernizing forest was that its roots were local. While archaeological evidence of resin production suggests the presence of coastal forests in Roman times, the practices of drainage and forestation as a method of improving the interior *landes* date back to at least the 15th century.<sup>38</sup> Regions along the southwestern coast boasted relatively old pine forests that supplied timber for marine construction, as did certain wooded sections along the navigable waterways in the eastern cantons of Mont-de-Marsan and Roquefort. Even in the heart of the *Grande Lande* cadastral maps of the eighteenth and the early nineteenth centuries attest to the presence of forests, particularly along the natural drainage basins of the Petite and Grande Leyre. Geographers have estimated that as much as one-fifth of the region was forested by 1850.<sup>39</sup> Most communes possessed small forested tracts known as *pignadars* which supported the local production of pitch, resin, tar and turpentine destined for the ports of Bordeaux and Bayonne.<sup>40</sup>

The state appropriated this local practice of forestation but could not entirely control it. Within the very administration assigned to oversee the application of the 1857 law, there were significant differences over how

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<sup>38</sup> J. Sargos, *Histoire de la forêt landaise*, 462.

<sup>39</sup> A. Pinaud, "L'occupation du sol dans la Grande Lande", 305-314.

<sup>40</sup> Some communes, particularly in the northern regions of the *Grande Lande* where natural drainage was more pronounced and access to Bordeaux and the Garonne river easier, boasted a particularly high proportion of forest. According to a 1769 survey over half the lands in the parish of Saint-Symphorien were forested while the first cadastral survey of the commune in 1844 put the forest at 48%. R. Pijassou, "Structures foncières, société rurale et occupation du sol à Saint-Symphorien du XVIIIe siècle au milieu du XIXe siècle," in Klingebiel and Marquette, *La Grande Lande*, 278.

forestation should proceed. *Ponts-et-Chaussées* engineers were fierce proponents of privatization and had scant regard for the communal property regime that supported traditional agro-pastoral society. However, in the two figures most closely associated with forestation, Jules Chambrelent and Henri Crouzet, one finds contrasting attitudes towards the role of local society in the transformation of the region.

Few figures cast as long a shadow as Chambrelent in the *Landais* forest. In 1907, at the dedication of a monument raised in his honor at Pierreton, not far from Bordeaux, M. Muntz, a member of the *Académie des Science*, spoke of Chambrelent's great legacy in the *Landes*:

If we cast our minds back sixty years, this vast region appeared completely sterile, with a miserable and sparse population suffering from deplorable health conditions, amidst stunted [sheep] herds, swamps, and arid deserts....With the arrival of Chambrelent, a new era dawned on this deprived country. Today, we see it covered in beautiful forests whose products are destined for distant markets and inhabited by an industrious and robust population that has come to know comfort and health. This is the legacy of Chambrelent in the *Landes*.<sup>41</sup>

Chambrelent had arrived in the region in 1841, as an *ingénieur ordinaire* stationed in Bordeaux. Ambitious, opportunistic, and well-connected, he moved easily in the new world of finance and investment that flourished under the Second Empire. Though he played only a marginal role in the application of the 1857 law, which was overseen by the *Service hydraulique*, Chambrelent did much to popularize the image of the *Landes* as a wasteland in need of redemption. For Chambrelent, private capital and enlightened engineering were the twin engines that drove social and economic progress. In his 'experiments' of

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<sup>41</sup> ADL BR4 47, *Inauguration du monument de Chambrelent* (Paris: Typographie de Firmin-Didot, 1907).

drainage and pine forestation at Saint-Alban, an estate he purchased near the outskirts of Bordeaux, Chambrelent demonstrated the potential riches that awaited intrepid investors in the *Landes*. At the 1855 Paris Exposition, he proudly displayed his specimens to a captivated audience. He claimed that his 'system', consisting essentially of a grid work of drainage ditches and an early sowing of pine seedlings, would increase the value of unimproved *landes* from 100 francs per hectare to upwards of 2000 francs for a minimal investment of 55-70 francs per hectare.<sup>42</sup> The desert of the *Landes* would soon bloom with thick forests. Chambrelent's vision struck a chord among his Parisian admirers, who included Napoleon III and the novelist Edmond About, and before long he was touted (not least by himself) as the *régénérateur des Landes*.<sup>43</sup>

While his more glamorous colleague championed the role of outside investors in the transformation of the *Landes*, Crouzet advocated that of the local landowner. Appointed the head of the *Service hydraulique* for the department of the Landes in 1853 and the director of the imperial estate of Solférino in 1856, Crouzet was a key figure in the region.<sup>44</sup> In his dutiful reports throughout the

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<sup>42</sup> AN F10 2339, Jules Chambrelent, "Rapport sur les travaux d'assainissement partiel et d'amélioration des Landes," February 27, 1856; AN F10 2339, Chambrelent, "Des travaux d'ensemble à faire immédiatement et des mesures à prendre pour l'assainissement et la Mise en Valeur des Landes de Gascogne," September 30, 1856

<sup>43</sup> Sargos, *Histoire de la forêt landaise*, 364. Edmond About (1828-1885) had been so taken with Chambrelent after meeting him at the 1855 Exposition that he travelled to the region and visited his estate at Saint-Alban. His novel, *Maître Pierre*, which appeared in serial form in the *Moniteur universel* in 1857 before the book was published in 1858, was a thinly-veiled celebration of the engineer's claims of regeneration. In his dedication, he wrote how Chambrelent "had parted before me the veils of the future [where] I saw a population of fifty thousand peasants saved by the genius of one man." Edmond About, *Maître Pierre* (1858, rpt. Paris, 1997), xv.

<sup>44</sup> Unlike Saint-Alban, located close Bordeaux, Solférino was established in the midst of the *Grande Lande*, designed to be at once a testament to the paternalist enlightenment of the Emperor and a practical display of the techniques and benefits of regeneration. The estate, carved out of 7,000 hectares of land purchased from seven neighboring communes (Labouheyre, Lüe, Commensacq, Escource, Sabres, Morcens and Onesse) along the new

1850s, one finds an enduring concern over the social effects of forestation. Crouzet urged his colleagues to draw on the lessons of local management, particularly in the western region of the Marensin where old stands of pine forest were interspersed with agriculture and pasturage. He envisioned a sort of Jeffersonian forest, where small wooded properties encircled modest farms and outlying crops and pasturage. These 'agricultural oases' would not only help populate the region with 'pioneer families' but also serve as natural firebreaks in the dense pine forests.<sup>45</sup>

Tensions within the Ponts-et-Chaussées administration between economic and social visions of forestation resonated in local debates over land sales prior to the passage of the 1857 law. State officials and private speculators, particularly in the Gironde, supported the public sale of communal *landes*.<sup>46</sup> They argued that a system of open bidding would provide a land market for eager investors emboldened by the improvements in transport and drainage in the region. At the same time, it would give a much-needed boost to communes, providing them with the necessary revenues to build a modern infrastructure of roads, schools, bridges and churches. In the future forests, profit and civilization walked hand in hand.

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Bordeaux-Bayonne rail, eventually formed the new commune of Solférino. Michelle Tastet, "Solférino, Domaine impérial: Une étude sur le peuplement," *Bulletin de la Société de Borda* 461 (2001): 179-190.

<sup>45</sup> Crouzet estimated that 220,000 hectares of forested commons would produce 3666 new farms, a figure amended only slightly by the parliamentary commission in charge of drafting the 1857 law. AN F10 2339, "Rapport fait au nom de la Commission chargée d'examiner le projet de loi relatif à l'assainissement et à la mise en culture des Landes de Gascogne," May 19, 1857.

<sup>46</sup> The coup d'Etat of 1852 had brought the end of the Second Republic but also political stability, low interest rates and expanding credit institutions. In this new era of speculation, private capital became allied to state projects, particularly since domestic expenditures paled in comparison to those directed towards foreign policy and war. Girard, *La politique des Travaux publics*, 85-6; Jean-Luc Mayaud, "Le Second Empire: faite économique ou épisode négligeable ?", 108.

Many municipal authorities and local landowners objected to this market-driven privatization, proposing instead a system of local concession proportionate to property ownership. In a widely circulated petition to the prefect of the Landes, the commune of Saugnac-et-Muret lobbied against public sale on the grounds that foreign investors would have little incentive to preserve the communal pasturage rights that much of rural society depended on. Drafted by Jean-Baptiste Lescarret, a *Bordelais* lawyer and political economist as well as a prominent local landowner, the petition argued that local ownership of forests would prove the best custodian of communal pasturage. Since local landowners, unlike outside investors, had a vested interest in the maintenance of the agro-pastoral economy, the petition reasoned that they would be more inclined to maintain access routes through, as well as limited pasturage in, their forested property. Privatization and forestation were the future but they need not, indeed could not, come at the expense of collective rights deeply rooted in both history and memory: "That the *landes* be drained and planted, this reason and progress dictate; but if this much-desired progress can be accomplished while respecting local rights...why reject a solution [local concession] so natural and just?"<sup>47</sup>

The contentious politics of land sales proved too much for legislators in Paris and in the final text of the 1857 law the matter was left to local authorities. During the first five years after the passage of the law, land sales generally followed two distinct patterns.<sup>48</sup> In the department of the Landes local

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<sup>47</sup> Jean-Baptiste Lescarret, *Le dernier pasteur des Landes* (1858, rpt. Pau, 1998), 148-150.

<sup>48</sup> Several meticulous studies of communal land sales have been undertaken by historians. See Jean-Pierre Lescarret, "La vente des landes communales de Saugnac-et-Muret et ses conséquences (1835-1883)," *Bulletin de la Société de Borda* 101 (1976): 425-450; R. Pijassou, "

concession predominated. Lots, proportionate to either property tax or landholdings, tended to be small, between four and fifteen hectares, and sold at an average of forty to forty-five francs per hectare.<sup>49</sup> In the Gironde, in contrast, public sale was more frequent. The average lot tended to be bigger while the average price higher, around eighty francs per hectare.<sup>50</sup>

Differences in forestation in the two departments owed primarily to the relative availability of capital and transport. Speculators in and around Bordeaux, eager for large returns on their ample capital, tended to purchase larger tracts of land for both timber and resin production. In the Landes, local property owners, at a greater distance from commercial centers and far more modest in their available capital, were primarily concerned with ensuring low prices for smaller plots that would be devoted primarily to resin production. (Unlike timber products such as telegraph and mining posts, the market price of resin made up for high transportation costs.)<sup>51</sup>

The outbreak of the American Civil War dramatically altered the course of forestation. The federal naval blockade in 1861 cut off major resin producers in Virginia, Georgia, Florida and South Carolina from outside markets, leading to a steep rise in the global price of resin. In France, the market price of a *barrique* of resin soared, from sixty-five francs per barrel in 1860 to three hundred francs by

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Structures foncières, société rurale et occupation du sol à Saint-Symphorien”; and C. Bouchet, *Lugos, commune des Landes de Gascogne*.

<sup>49</sup> AN F10 2342, Prefect of Landes, “Rapport sur la situation des landes communales, 1860-1861.”

<sup>50</sup> Archives départementales de la Gironde (hereafter ADG) 7M 641, report of *Service hydraulique* chief engineer to prefect of Gironde, February 28, 1861.

<sup>51</sup> H. Cavaillès, “Le problème de la circulation dans les Landes de Gascogne,” *Annales du Géographie* 240 1933: 574.

1864.<sup>52</sup> A wave of speculation broke over the *Landes*. With the boom in resin prices, local landowners soon abandoned themselves to intensive forestation while foreign investors swooped in. Reservations over public sale evaporated with the rapid inflation of land prices. Local concessions that had, on average, sold for 45 francs per hectare fetched upwards of 150 francs by the mid-1860s. Soaring land prices were a boon, it seemed, to communes. As one mayor remarked, it was as if they had discovered a “new Peruvian mine of riches.”<sup>53</sup>

Most historians of the region agree that the widespread public sale of communal *landes*, spurred by the resin boom and encouraged by state officials, was the main culprit in over-forestation. In the words of one historian, this logic of speculation, facilitated by the state, constituted the “original sin” of the industrial pine forests.<sup>54</sup> With few exceptions this narrative of corruption through speculation has structured historical approaches to the *Landais* forest, celebrating the local initiative of forestation while inoculating it against the social upheaval that ensued.<sup>55</sup>

The notion that local landowners would be more inclined to maintain usage rights than outside investors was perhaps reasonable in theory but in practice few were willing to permit pasturage in or access through their plantations. Many failed to maintain access to the traditional sheep paths, known locally as *péguilheyres*, that served as corridors among prairies, moors and other

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<sup>52</sup> A. Larroquette, *Les Landes de Gascogne et la Forêt Landaise* (Mont-de-Marsan: Imprimerie Dupeyron, 1924), 20.

<sup>53</sup> Quoted in H. Faré, *Enquête sur les incendies de forêts dans la région des Landes de Gascogne*. (Paris, 1873), 137.

<sup>54</sup> Lescarret, *Le dernier pasteur des Landes*, 19.

<sup>55</sup> For a more critical stance towards local concession and more lenient view of the state, see Cailluyer, *Regards sur l'histoire sociale des Landes*.

pasturing areas, facilitating the seasonal patterns of transhumance. Félix Arnaudin, the celebrated poet, photographer and folklorist of the *Landes*, bitterly reflected in a journal entry how his father's attempts to maintain a *péguilheyre* in Labouheyre had been undermined by a relative, Rémy Bacon, a "nouveau riche" notary who had benefited handsomely from the land sales around the imperial domain of Solférino. The "baconaille" had bought up all the surrounding lands for forestation.<sup>56</sup>

Arguments for local concession veiled the despoliation of communal lands. Its proponents were mostly members of the rural elite, consisting of medium and large landowners and the cluster of neighboring *bourgeoisie* that included *notaires*, *négociants*, *rentiers*, professionals and small factory owners. A dominant influence on local municipal councils, they tended to invoke concession not because it was in the best interests of the community but because it ensured them an advantage vis-à-vis outside investors in land purchases.<sup>57</sup> This is not to say that they were indifferent to the fate of communal pasturage. The agricultural system touched all members of rural society. Yet the rural elite were in a far better position than most locals to benefit from the privatization of communal *landes*. The real casualties of forestation were precisely those who had the most to lose from the elimination of communal pasturage: the small property owners,

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<sup>56</sup> Félix Arnaudin, *Oeuvres complètes*, v. 8, *Journal et choses de l'ancienne lande* (Bordeaux: Parc naturel régional des Landes de Gascogne, 2003), 10.

<sup>57</sup> State officials had early on detected the self-serving motives of local concession. Local property owners, they suspected, were using the defense of communal rights as a way to increase their own holdings at discounted prices by shutting out non-local investors. Informed of the 1856 petition of Saugnac-et-Muret, the Minister of the Interior sharply replied that the municipal council "rejects public sale less in the name of any communal good than to procure for large property owners lands at a price not exceeding half their value." Quoted in Lescarret, *Le dernier pasteur des Landes*, 15.

sharecroppers, agricultural laborers and *pasteurs* who made up the bulk of agropastoral society.

Debates over the respective benefits of public sale and local concession reveal the fractured nature of modernization in the *Landes*. While fed by conflicting visions of forestation, they were less the result of any presumed dichotomy between state and local society than an effect of tensions within the project of modernization itself. Both sides, after all, sought a similar end: the privatization of communal *landes*. At issue was not whether forestation was the proper road to prosperity but how that prosperity should be apportioned.

### *Le Feu: The shepherd's revenge*

Whatever tensions existed within the rural world over forestation were muted during the first years following the application of the 1857 law. True, not all communes pursued the sale of communal *landes* with the same vigor and there were occasional reports of the destruction of recent plantations.<sup>58</sup> On the whole, however, the rural population appeared resigned to a forested future.

This would change in the final years of the Second Empire, when the region was struck by economic and environmental disaster. First, the resin market, once buoyed by the blockades of American producers, crashed to earth. The price of a barrel of resin, which had risen as high as three hundred francs in

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<sup>58</sup> Some communes proved more intransigent than others. One report in 1860 noted 32 communes in the Landes (29% of the communes subjected to the 1857 law in the department) had failed to undertake part or all of the improvements required by the law. ADL 18S 1, report of the *ingénieur en chef* to prefect of Landes, August 29, 1860.