

RESEARCH ARTICLE

The Environmental Transformation of “Empty Space”: From Desert to Forest in the *Landes* of Southwestern France

Caroline Ford

University of California, Los Angeles, Los Angeles, CA, USA
E-mail: cford@history.ucla.edu

Abstract

This article explores the environmental transformation of the moorland (*landes*) of southwestern France from a much maligned “wilderness” or “empty space” to a forested landscape coveted for its productive potential as well as its aesthetic beauty. This occurred in two stages from the eighteenth century to the present and was effected by the French state and local landowners. It bears resemblance to processes of environmental change in North America, Central Asia, and Africa, where states and colonial or imperial powers took measures to develop alleged empty spaces through seizure, development, and settlement. Drawing on paradigms of colonial rule and Henri Lefebvre’s theory regarding the production of space, the article examines the eradication of the “wilderness” of the region of the *Landes*, which led to the displacement of its pastoral populations and the end of their way of life. It explores the role of technology in consolidating the power of territorial states and empires and the significance of the parallels that can be drawn between the *Landes* and France’s overseas empire. Finally, it attests to the porosity of the boundary between man-made and natural landscapes, while illuminating the process by which the artificial forested landscape of the *Landes* ironically came to be redefined and revalorized as “natural” national heritage that was ripe for environmental protection by the second half of the twentieth century.

Keywords: environment; wilderness; pastoralism; colonized space; landscape; heritage; France

In his *Dictionnaire philosophique* of 1769 the French Enlightenment philosopher Voltaire likened the moorland (*landes*) of the pre-Revolutionary French province of Gascony in southwestern France to “the desert of Sinai,” an empty African landscape that he had never seen.¹ His appraisal was echoed by a local notable from the region in

¹Voltaire, *Dictionnaire philosophique* (Paris: Cosse et Gaultier-Laguionio, 1838), 642, and quoted in Bernard Traimond, “Le voyage dans les Landes ou la traversée du Sahara français,” *Etudes rurales* 103/104 (July–Dec. 1986): 221.

a *cahier de doléance* from the coastal parish of Labenne on the eve of the French Revolution, who wrote that his parish was a “non arable and barren territory almost like Arabia.”² Little had changed in public perceptions by the nineteenth century.³ Bory de Saint Vincent, a naturalist who had taken refuge with his family in the region during the French Revolution, observed in the 1820s that the “surface of the Grande Landes is subject to mirage which is no less in its effects than in the deserts of Egypt or Arabia.”⁴ By 1840, the Romantic poet Théophile Gautier composed a poem about the region called “Les pins des landes,” in which he called it a “true French Sahara, powdered with white sand.”⁵

A little over sixty years later, at the beginning of the twentieth century, the American geologist, Collier Cobb, observed in 1908 that “immense forests cover the country, dunes and marshes are but little in evidence, and the wood, turpentine, rosin, and kindred industries have brought wonderful prosperity to the entire department, which was formerly the most barren district of France.”⁶ He celebrated environmental changes wrought by the draining of marshland and the planting of pines and argued that the Landes possessed a “peculiar fascination for the traveler who is more than a tourist, to him who would learn how man gains mastery over nature, instead of remaining a creature of the environment and a slave of circumstances.”⁷

On the eve to the Second World War Maxime Leroy celebrated the Landes as a “pure landscape,” perhaps one of the few places in France that was “only a landscape,” prized precisely for its wildness and most admired for its aesthetic value.⁸ These differing appraisals of the Landes attest to its obvious transformation from devalored empty “desert” to a region covered by vast and silent forests, which came to be valued for both their productive potential and aesthetic beauty.

This article analyzes the transformation of the Landes’ “empty” moorland, effected by the French state and by local elites, which led to the displacement of its pastoral populations and ended their way of life. It draws on the concept of “internal colonialism,” the philosopher and sociologist Henri Lefebvre’s theoretical perspectives on the social production of space, and paradigms of colonial rule, to argue that this region was transformed by the same state-building and economic development practices that France was then deploying in its overseas colonial empire. The process ultimately revealed the porosity of boundaries between man-made and natural landscapes and illuminates how the artificial forested landscape of the Landes became, at the end of the twentieth century, ironically, redefined and revalorized as a “natural” national heritage ripe for environmental protection.

²Quoted in Traimond, “Le voyage dans les Landes,” 222. The *cahiers de doléances* were lists of grievances compiled in each parish of France before the meeting of the Estates General on the eve of the French Revolution in 1789.

³Jean-Florimond Boudon de Saint-Amans, *Voyage agricole, botanique et pittoresque dans une partie des Landes de Lot-et-Garonne et celles de la Gironde* (Bordeaux: L’Horizon Chimérique, 1988; repr. of 1818 ed.).

⁴Quoted in Traimond, “Le voyage dans les Landes,” 224. “The Landes” (upper-cased) refers to the region, whereas *landes* (lower-cased and italicized) refers the moorland in the region.

⁵Quoted in Jacques Sargos, *Les Landes: naissance du paysage* (Bordeaux: L’Horizon chimérique, 1989), 7.

⁶Collier Cobb, “Landes and Dunes in Gascony,” *Journal of the Elisha Mitchell Society* 26, 3 (1910): 81–95, 95.

⁷*Ibid.*, 81.

⁸Maxime Leroy, “La Beauté des Landes,” *Urbanisme: revue mensuelle de l’urbanisme français* (Jan. 1937): 5–11, 6. Leroy was a prominent French jurist who became deeply attached to the seaside commune of Hossegor, where he spent his summer months, and he wrote a book about it: *Hossegor* (Saint-Sever: J. Glize, 1936).

I

In a volume of essays that explores areas of the world associated with “emptiness,” which implies the absence of people and significant geographical markers, its editors observe that emptiness is a “challenging concept” precisely because as a concept it “necessarily invokes what is *not* present.”⁹ Another term that has been linked to the concept of emptiness is “wilderness,” which was initially viewed as empty “waste,” and the connotations of both terms were far from positive. Waste and wilderness stood “apart from humanity,” and in the English language wilderness originally referred to a landscape that was deserted, barren, and desolate.¹⁰ Indeed, the emotion that observers felt in its presence was more often than not “bewilderment and terror.”¹¹

In many respects the Landes was France’s wilderness, but this de-valorized empty space went through a process of redefinition and revalorization similar to “wildernesses” in other parts of the world, including North America, Central Asia, and North Africa, where states, and in many instances colonial and imperial powers, took coercive and what they deemed to be palliative corrective measures to develop them through seizure, development, and settlement. Their consequent environmental transformation often resulted in the removal of their human inhabitants as well as the eradication of their way of life, and this often shaped national and regional narratives, as evidenced in the work of Cynthia Radding on the U.S.-Mexican border, of Willard Sunderland, Jennifer Keating, and David Moon on the Russian Empire, Frieda Knobloch on wilderness and the American West, and Diana Davis on arid lands of the Middle East.¹²

The physical transformation of the Landes and of its economy and society was effected through grand projects initiated by the French state, but these initiatives were by no means new or confined to France, or even to Europe. In the sixteenth and seventeenth centuries the French Crown embarked on large-scale land reclamation projects backed by Dutch capital by draining the marshlands of Provence and Poitou, which resulted in radical changes in society and the environment, even as they shored

⁹C. Campbell, Allegra Giovine, and Jennifer Keating, “Introduction: Confronting Emptiness in History,” in C. Campbell, Allegra Giovine, and Jennifer Keating, eds., *“Empty Spaces”: Perspectives on Emptiness in History* (London: University of London Press, 2019), 1.

¹⁰William Cronon, “The Trouble with Wilderness or, Getting Back to the Wrong Nature,” in William Cronon, ed., *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W. W. Norton, 1995), 69. Also see Roderick Nash, *Wilderness and the American Mind*, 3d ed. (New Haven: Yale University Press, 1982); and Max Oelschlaeger, *The Idea of Wilderness: From Prehistory to the Age of Ecology* (New Haven: Yale University Press, 1991).

¹¹Cronon, “Trouble with Wilderness,” 70.

¹²Cynthia Radding, *Landscapes of Power and Identity: Comparative Histories in the Sonoran Desert and the Forests of Amazonia from Colony to Republic* (Durham: Duke University Press, 2006); Willard Sunderland, *Taming the Wild Field: Colonization and Empire on the Russian Steppe* (Ithaca: Cornell University Press, 2004); Jennifer Keating, “Amid the Horrors of Nature: ‘Dead’ Environments at the Margins of the Russian Empire,” in Frieda Knobloch, ed., *Empty Spaces; The Culture of Wilderness: Agriculture as Modernization in the American West* (Chapel Hill: University of North Carolina Press, 1996); and David Moon, *The Plough that Broke the Steppes: Agriculture and Environment on Russia’s Grasslands* (Oxford: Oxford University Press, 2013). Also see Tracey Banivanua-Mar and Penelope Edmonds, *Making Settler Colonial Space: Perspectives on Race, Place and Identity* (Basingstoke: Palgrave, 2010); Dane Kennedy, *The Last Blank Spaces: Exploring Africa and Australia* (Cambridge: Harvard University Press, 2013).

up the power of the French state.¹³ In the seventeenth century the Crown used technology and engineering to harness nature as well as to refashion different kinds of environmental space in projects that ranged from the Canal du Midi to the gardens of Versailles.¹⁴ France's first engineering school, the Ecole des Ponts et Chaussées, which opened in 1747, and the Administration des Ponts et Chaussées (Bridges and Roads), along with the Administration des Eaux et Forêts (Water and Forests), became three of the most powerful technological arms through which the power and territorial reach of the French state were consolidated.¹⁵

James C. Scott has explored state-initiated engineering projects in other parts of the world, including Africa, the Caribbean, and Southeast Asia, where utopian schemes to improve nature and the human condition were carried out and often went awry. Scott sees the projects of scientific forestry in Prussia and Saxony in the eighteenth century, for example, as a kind of starting point and a "metaphor for forms of knowledge and manipulation characteristic of powerful institutions." He attempts to show how "thoroughly society and the environment have been refashioned" by early modern statecraft, which presaged the social engineering and development schemes undertaken by states and colonial powers in Africa and Asia in the twentieth century.¹⁶

Environmental change in the Landes resulted from projects that were implemented to drain its marshlands and plant maritime pines (*Pinus pinaster*) in a region where previously few existed. These projects occurred in three phases between the eighteenth and twentieth centuries. The first involved the planting of pines at the edge of Gascony's coastal dunes during French Revolution and Napoleonic periods to prevent coastal sand drift from engulfing towns and agricultural land. A second phase was launched during the Second Empire when the French state drained the region's marshes and planted pines on an unprecedented scale for the purpose of agricultural and sylvicultural development, which was justified in terms of *mise en valeur*, a term that is more often associated with development projects in France's overseas colonies during the same period.¹⁷ A third phase in the Landes' transformation followed the Second World War and has been downplayed by historians, when the newly forested landscape became both a

¹³Raphaël Morera, "Environmental Change and Globalization in Seventeenth-Century France: Dutch Traders and the Draining of the French Wetlands (Arles, Petit Poitou)," *International Review of Social History* 55, sup. 18 (2020): 79–101.

¹⁴Chandra Mukerji, *Territorial Ambitions and the Gardens of Versailles* (Cambridge: Cambridge University Press, 1997); Chandra Mukerji, *Impossible Engineering: Technology and Territoriality on the Canal du Midi* (Princeton: Princeton University Press, 2009).

¹⁵Antoine 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).

¹⁶James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998), 11, 3.

¹⁷Roger Sargos, *Contribution à l'histoire du boisement des Landes de Gascogne* (Bordeaux: Delmas, 1949), 12. Albert Sarraut established the blueprint for development and economic policies in France's overseas colonies, in *La mise en valeur des colonies françaises* (Paris: Payot, 1923). See Martin Thomas, "Albert Sarraut, French Colonial Development, and the Communist Threat, 1919–1930," *Journal of Modern History* 77, 4 (2005): 917–55. Julien Aldhuy has drawn parallels between colonial policies of *mise en valeur* and development projects in the Landes, in "La transformation des Landes de Gascogne (XVIIIe–XIXe), de la mise en valeur comme colonisation intérieure?" *Confins: Revue franco-brésilienne de géographie* 8 (2010): 1–20.

“landscape of nostalgia” and a protected “natural” site in the form of the Parc Naturel Régional des Landes de Gascogne, which came to house one of France’s first “*écomusées*,” the Ecomusée de Marquèze, in 1969.¹⁸

While the physical transformation of the region did not go unnoticed by local observers or by subsequent historians, studies of the phenomenon have primarily focused on its economic aspects, the “modernization” of a rural area of France, and to a lesser extent on its ramifications for state-building.¹⁹ For example, Samuel Temple has explored the contested origins of the Landais forests; they were seen in many official accounts as a symbol of the beneficent actions of an enlightened state but by regional historians as the work of the region’s landowners and foresters.²⁰ The changes that were effected in the Landes might also be viewed as an example of “internal colonialism,” a theory articulated by Michael Hechter and subsequently by others seeking to understand how states and metropolitan elites sought to integrate and assimilate ethnic and linguistic groups at their peripheries, while reinforcing economic and social inequalities.²¹ While the state and its engineers used their technical know-how in the Landes to transform the landscape and economy in radical ways, change was also brought about by local actors, and their goal was less one of integration and assimilation than it was to maximize returns on very specific kinds of investment as a form of *mise en valeur*. This was achieved by drawing on strategies that were employed in France’s overseas empire, especially in North Africa, at the same moment in time. In many respects colonial strategies for *mise en valeur* in France’s overseas empire shed more light on the environmental transformation of the Landes than do practices associated with internal colonialism.

The perspectives proffered by Henri Lefebvre regarding the production of space also provide an indispensable key to understanding the larger significance of the environmental changes in the Landes, where, as irony would have it, Lefebvre was born.²² The Landes’ environmental transformation was predicated on far-reaching

¹⁸Aude Pottier discusses aspects of this transformation in “La forêt des Landes de Gascogne comme patrimoine naturel? échelles, enjeux, valeurs,” (PhD diss., Geography, Université de Pau et des Pays de l’Adour, Dec. 2012).

¹⁹See Albert Larroquette, *Les Landes de Gascogne et la forêt landaise: aperçu physique et étude de transformation économique et sociale* (Mont-de-Marsan: Dupeyron, 1924); and Henri Cavallès, “La transformation des Landes de Gascogne et leur situation actuelle,” *Annales de Géographie* 34, 189 (15 May 1925): 219–25. Samuel Temple is one of the few historians to explore the transformation of the Landes in the nineteenth and twentieth centuries, with a particular emphasis on the 1850s and 1860s: “The Natures of Nation: Negotiating Modernity in the Landes de Gascogne,” *French Historical Studies* 32, 3 (2009): 419–46. Also see Hamish Graham, “For the Needs of the Royal Navy: State Interventions in the Communal Woodlands of the Landes during the Eighteenth Century,” *Proceedings of the Western Society for French History* 35 (2007): 135–48; and Alice Garner, *A Shifting Shore: Locals, Outsiders and the Transformation of a French Fishing Town* (Ithaca: Cornell University Press, 2005).

²⁰Roger Sargos, a forester and landowner in the Landes, is the principal spokesman for the regionalist perspective. See his *Contribution à l’histoire du boisement des Landes de Gascogne* and *Plan de sauvegarde de la forêt landaise et de remise en valeur des Landes de Gascogne* (Bordeaux: Delmas, 1949).

²¹On internal colonialism as a historical and sociological concept, see Michael Hechter’s classic, *Internal Colonialism: The Celtic Fringe in British National Development, 1535–1966* (Berkeley: University of California Press, 1975); and more recently, Steven Sabol, “*The Touch of Civilization*”: *Comparing Russian and American Internal Colonization* (Boulder: University of Colorado Press, 2017).

²²Henri Lefebvre was born not far from the Pyrenees, in Hagetmau, a commune in the department of Landes, in 1901. For the significance of the southwestern France and the Pyrenees for his theories of space, see J. Nicholas Entrikin and Vincent Berdoulay, “The Pyrenees as Place, Lefebvre as Guide,” *Progress in Human*

economic change, and Lefebvre insisted on defining space in social and economic terms, which would of necessity have a profound impact on “nature.” In the words of Lefebvre, “even the powerful myth of nature” can be transformed so that nature would ultimately be “seen as merely the raw material out of which productive forces of a variety of social systems have forged their particular spaces.”²³ Indeed, he argues, all space is socially produced and must be considered in its many forms. He regarded space as a tripartite phenomenon produced by different social actors and comprised of perceived (*le perçu*), conceived (*le conçu*), and lived (*le vécu*) space. Perceived space refers to subjective perceptions of the physical environment, while conceived space is an abstract idea that has shaped how states, cartographers or engineers negotiate or alter the physical environment, while for Lefebvre lived space is “directly lived through its associated images and symbols, and hence is the space of ‘inhabitants’ and ‘users,’” which is not synonymous with space as conceived by states and their agents.²⁴ Therefore “conceived” and “lived” spaces frequently come into conflict and “lived experience is crushed, vanquished by what is ‘conceived of.’”²⁵ Lefebvre also understood that the production of space is by definition a historical process: “Every social space has a history, one invariably grounded in nature, in natural conditions that are at once primordial and unique.”²⁶ However, the idea of “nature” presented a particular set of problems for Lefebvre, as it does for the historian of the Landes, because by the twentieth century the boundary between what was “natural” and what was “human-made” was very porous: “What is nature? How can we form a picture of it as it was before the intervention of humans and their ravaging tools?”²⁷ In short, the forested man-made landscape conceived by the engineers and foresters employed by the French state as well as local landowners and entrepreneurs redefined the social and natural space of the Landes.

The spatial, environmental, and social histories of the Landes were intertwined, and those histories elucidate the evolving relationship between a myriad of actors who played roles in the production of new and overlapping social and environmental spaces.²⁸ They include government officials, local landowners, foresters, and the region’s pastoral population. The effect of environmental change on the region’s pastoral population was far-reaching, and it is captured in the haunting photographic images of the local folklorist and photographer Félix Arnaudin (1844–1921), who documented their gradual demise at the beginning of the twentieth century.²⁹ Since

Geography 29, 2 (2005): 129–47. Lefebvre wrote his doctoral dissertation on a rural valley in the Pyrenees, which was published as *La vallée de Campan: une étude de sociologie rurale* (Paris: Presses Universitaires de France, 1963).

²³Henri Lefebvre, *The Production of Space*, D. Nicholson-Smith, trans. (Oxford: Oxford University Press, 1991), 110.

²⁴*Ibid.*, 39.

²⁵*Ibid.*, 51.

²⁶*Ibid.*, 110.

²⁷*Ibid.*, 31.

²⁸I deliberately borrow the term “social space” from Henri Lefebvre, who argues that “social spaces interpenetrate one another or superimpose themselves on one another,” in *Production of Space*, 85.

²⁹Arnaudin was a poet, photographer, and folklorist who documented the lives and customs of the inhabitants of the Landes in thousands of images, whose negatives are now housed in the Musée d’Aquitaine in Bordeaux. On Arnaudin, see William G. Pooley, *Body and Tradition in Nineteenth-Century France: Félix Arnaudin and the Moorlands of Gascony, 1870–1914* (Oxford: Oxford University Press, 2019); Richard Arnaudin, Marc Large, and Jean Tucoo-Chala, *Félix Arnaudin: 100 ans après* (Dax: Editions Passiflore, 2020);

comparisons can be drawn between how government officials and local elites in the Landes of metropolitan France regarded the landscape as well as pastoral groups, and how colonial officials and French settlers regarded landscapes and indigenous populations in France's overseas colonial empire, the significance of these parallels must be considered in the context of what Eugen Weber once described the "modernization of rural France."³⁰ The introduction of new economic and social spaces in the Landes was founded on the "Othering" of the region's pastoral inhabitants.

Historians have acknowledged the long history of the conflicts between pastoral groups, landowners, and the state over common land in France,³¹ and they were clearly in evidence in the Landes. Less attention has been paid to how these conflicts dovetailed with measures taken to expropriate, protect, and develop land in France's overseas colonies and in other parts of the world. The spatial history of the Landes of Gascony attests to the complicated story of how devalORIZED landscapes were developed and revalorized as their inhabitants were ultimately displaced.

II

At the end of the eighteenth century the Landes of Gascony consisted of a vast (five thousand four hundred square miles), triangular and largely uncultivated plateau 100 meters above sea level between the Garonne and Gironde rivers to the north, the Adour river to the south, and the Atlantic Ocean to the west. Its north and center comprised the so-called *Grandes Landes* (Lana Gran in Gascon) and its southeastern corner was known as the *Petites Landes*.³² After the creation of a new administrative map of France during the French Revolution the Landes extended over the surface of a new department that took its name, the department of the Landes, half of the department of the Gironde, and a corner of the department of the Lot-et-Garonne (figure 1). The moorlands of the departments of Gironde and Landes consisted in the nineteenth century of 600,000 hectares (or 1,482,600 acres) of wasteland, the so-called "déserts du Midi."³³

The surface of the Landes could be divided into two distinct zones: the first consisting of a coastline with immense and shifting sandy dunes, and the second a vast flat landscape dotted with several large lakes and lagoons and covered with low lying brush, heath, and small tracts of pine trees, where herds of sheep had grazed since time immemorial. In the summer it was a "bed of burning sand" and in the

and Alberto Puig, Marie-France Artiagoitia, and Sylvette Andreck, *Félix Arnaud (1844–1921): Imagier de la Grande-Lande* (Bordeaux: Musée d'Aquitaine, 1991).

³⁰Eugen Weber, *Peasants into Frenchmen: The Modernization of Rural France* (Stanford: Stanford University Press, 1976).

³¹Andrea E. Duffy, *Nomad's Land: Pastoralism and French Environmental Policy in the Nineteenth-Century Mediterranean World* (Lincoln: University of Nebraska Press, 2019). For the still ongoing debate about communal land, see Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press, 1990); and Fabien Locher, "Cold War Pastures: Garrett Hardin and the 'Tragedy of the Commons,'" *Revue d'histoire moderne et contemporaine* 60 (Jan. 2013): 7–36.

³²Pierre Cuzacq, *Les Grandes Landes de Gascogne: études historiques et géographiques* (Bayonne: A. Lamaignière, 1893), 5.

³³Arthur Mangin, *Le désert et le monde sauvage* (Tours: A. Marne, 1866), 19.



Source gallica.bnf.fr / Bibliothèque nationale de France

Figure 1 “Carte d’une partie des départemens de la Gironde et des Landes, comprenant les landes du littoral du Golfe du Gascogne, 1834.” Source:gallica.bnf.fr/Bibliothèque nationale de France.

winter it was in a state of constant inundation, “while between the two was a period of pestilence.”³⁴ The marshy conditions in the Landes during the winter months were the result of imperfect drainage created by the region’s topography and soil composition. The Landes’ top layer consisted of fine sand that was no more than 35 to 50 centimeters thick, and it rested on a deeper layer of sand, clay, and vegetation known locally in the Gascon language as *aliòs*, which formed a kind of organic cement that water could not penetrate. As there was no source of moisture other than rain, the Landes became a dry, arid desert in the summer. However, for six months, when the region had rain, the flat, barren terrain turned into an almost impassible bog. Absolute drought and burning sand reigned during the summer months. In winter the terrain was permanently flooded until the stagnant water evaporated in the summer heat.³⁵ Its pastoral population therefore had long used stilts (*échasses*) to navigate this marshy waste to follow their flocks of sheep. Sodden salt pastures supported a local community of marsh farmers and shepherds who made their way across the miles of squelchy fields. The historian Hippolyte Taine, among many others, remarked on this relatively sparse population, noting that one could only occasionally observe “the silhouette of a shepherd on his stilts, inert and upright, like a sick heron.”³⁶

The story of the self-conscious transformation of the Landes begins in the eighteenth century with the writings and work of several men. Baron Charlevoix de Villiers, an accomplished engineer, who was charged with establishing a military post in Arcachon, first recognized the need to fix the region’s coastal sand dunes. He thought that this could be achieved by planting pines that grew well in sandy soil. He was transferred to the Caribbean island of Saint Domingue before he could accomplish the task, and it was not undertaken until some years later when another engineer, Nicolas-Théodore Brémontier, came to Bordeaux in 1784 as chief engineer in the service of the Ponts et Chaussées. He had trained at the

³⁴John Gifford, “The Control of Drifting Sands,” *Engineering Magazine*, Jan. 1898, quoted in Cobb, “Landes and Dunes,” 85.

³⁵Jules Chambrelent, *Les landes des Gascogne: leur assainissement, leur mise en culture, exploitations et débouchés de leur produit* (Paris: Baudry, 1887), 3.

³⁶Hippolyte Taine, *Voyage aux Pyrénées* (Paris: Hachette, 1860), 12–13.

prestigious Ecole des Ponts et Chaussées and has been credited for single-handedly arresting the sand drift of Gascony's coastal dunes. His name is chiefly associated with the revolutionary project of planting two hundred kilometers of coastal wetlands with the aromatic and resinous *Pinus pinaster* in order to turn the salted wastes into productive timber-bearing land. Brémontier came to be known as the “*père des dunes*,” or father of the dunes, for techniques he used to ensure that they formed a stable barrier between the ocean and arable land in the Landes' interior.

Brémontier turned his attention to the bleak coastal landscape of the Landes and more particularly to its shifting dunes, after having consulted the work of the abbé Louis-Matthieu Desbiey and Baron Charlevoix de Villiers, whom he never properly acknowledged or credited in his own work.³⁷ Desbiey, born in Saint Julien and a native of the Landes, had presented a comprehensive proposal on the planting of pines as a solution to the problem of shifting dunes to the Académie de Bordeaux in 1774, for which he was awarded a prize. Entitled *Recherches sur l'origine des sables de nos côtes, sur leur funestes incursions vers l'intérieur des terres, sur les moyens de les fixer ou du moins d'en arrêter leur progrès*, it was published two years later in 1776. That same year, Desbiey's brother Guillaume presented another report to the Académie on the subject entitled *Mémoire sur la meilleur manière de tirer partie des landes de Bordeaux*. Influenced by these important studies as well as the reports of Charlevoix de Villiers, Brémontier obtained the funds necessary to plant maritime pines on a significant scale on the dunes of La Teste in 1787, a town on the verge of being engulfed by them. The project was executed on the property of the seigneur of Ruat between 1788 and 1793. He began with the dunes of Amanieu de Ruat and put a local landowner, Jean-Baptiste Peyjehan, in charge of the site. The work was interrupted in 1793 by the Revolution, but continued in fits and starts largely with the help of Peyjehan, who often paid workers out of his own pocket.³⁸

Brémontier published his report on the whole project in 1796 as *Mémoire sur les dunes, et particulièrement sur celles qui se trouvent entre Bayonne et la pointe de Grave, à l'embouchure de la Gironde*.³⁹ To protect the plantation of young maritime pines that were intended to prevent the dunes engulfing the land around them, he had proposed erecting fences and planting underbrush, the latter being a mix of gorse and broom. This work was aided by the erection of palisades, or slat fences, and also by laying brush wood over sand that had been stabilized by the planting of marram grass. The mat-like root system of marram grass then spread through the dunes like a powerful glue that held them in place. Brémontier's success at La Teste prompted him to expand the project, which was renewed during the Napoleonic episode. On 2 July 1801 an order was issued to continue planting trees along the entire coast of Gascony, and a commission was created to preside over the undertaking, composed of Brémontier, as chief engineer of the department of Gironde, a forest administrator, and three members of the agricultural section of La Société des Sciences, Arts et

³⁷Xavier Moulis, *Deux bienfaiteurs des Landes de Gascogne, L'abbé Desbiey et Brémontier* (Bordeaux: Delmas, 1866). According to the forester Charles-Guillaume Grandjean, Brémontier's main concern was always to promote himself and to ensure that only he would be remembered for stabilization of the dunes in the region. Grandjean, *Les landes et les dunes de Gascogne* (Paris: J. Rothschild, 1896), 61.

³⁸Jacques Sargos, *Histoire de la forêt landaise: du désert à l'âge d'or*, 3d ed. (Bordeaux: L'Horizon chimérique, 2004), 264.

³⁹Nicolas-Théodore Brémontier, *Mémoire sur les dunes, et particulièrement sur celles qui se trouvent entre Bayonne et la pointe de Grave, à l'embouchure de la Gironde* (Paris: Impr. de la République, 1796), 1.

Belles-Lettres de Bordeaux. On 2 July 1808, a commission for the plantation of dunes was also established in the department of Landes, and on 14 December 1810 a Napoleonic decree provided for the planting of pines in all of France's maritime departments.

These early initiatives were not abandoned during the Restoration, as evidenced in a royal ordinance regarding the planting of dunes in the departments of Landes and Gironde on 5 February 1817,⁴⁰ and it was the prefect of the Gironde, appointed under the Restoration monarchy, who erected a monument in the region in Brémontier's honor. By the second half of the nineteenth century the communes of Lacanau, Hortin, La Porge, Cazau, Lège, and Le Verdon were no longer in danger of being inundated by the shifting coastal dunes. In the words of Jean-Baptiste Billaudel, an engineer, who would become mayor of Bordeaux in 1848, "culture, life, progress took root there where desolation and despair reigned."⁴¹

In his *Man and Nature: Or Physical Geography as Modified by Human Action*, the American conservationist George Perkins Marsh devoted an entire chapter to sand and dunes formed by the drifting sands, and focused particular attention on the Landes of Gascony. He summed up the condition of the coastal area as follows: "We know, from written records that they have buried extensive fields and forests and thriving villages, and changed the course of rivers, and that the lighter particles carried from them by the winds ... have rendered sterile much land formerly fertile."⁴² For Marsh, "the destruction of coast towns and harbors, which furnished markets for the products of the plains, the damming up of rivers, and the obstruction of the smaller channels of natural drainage by the advance of the dunes were no doubt very influential causes" of the region's wasteland. He concluded, "If we add the drifting of the sea sand over the soil, we have at least a partial explanation of the decayed agriculture and diminished population of this great waste."⁴³

During the Second Empire, stabilizing, managing, and conserving the coastal dunes became the responsibility of the forest administration (Eaux et Forêts) through a decree on 29 April 1862. When it took control of the operation in July 1862 in the departments of the Landes and Gironde, 55,584 hectares had been planted and 7,543 hectares remained to be planted. The coastal zone was now called a "zone de protection."⁴⁴ By 1896, 88,071 hectares had been planted with maritime pines and other vegetation, which meant that roughly 85,000 hectares of formerly unproductive and arid land was now covered with luxuriant forests, "in spite of their dark and sad appearance," which were also lucrative since they could be tapped for resin.⁴⁵

George Perkins Marsh had noted that the operations for fixing and reclaiming the dunes of southwestern France, which began under Brémontier about the same time as those in Denmark, had been conducted on a far larger scale and with greater success than in any other country in the world.⁴⁶ He attributed this success in part to climate

⁴⁰John Croumbie Brown, *Pine Plantations on the Sand-Wastes of France* (Edinburgh: Oliver and Boyd, 1878), 27–29.

⁴¹Quoted in Grandjean, *Les landes et les dunes*, 60.

⁴²George P. Marsh, *Man and Nature; or Physical Geography as Modified by Human Action* (New York: Charles Scribner, 1865), 497.

⁴³Marsh, *Man and Nature*, 512.

⁴⁴Grandjean, *Les landes et les dunes*, 70.

⁴⁵*Ibid.*, 88.

⁴⁶Marsh, *Man and Nature*, 504.

and in part to the greater investment that a centralized French state made in the project. By the mid-1860s, Brémontier and his successors had secured approximately 100,000 acres from drifting sand.

The planting of maritime pines on the dunes of Gascony generated an extensive literature during the course of the nineteenth century. Brémontier's *mémoire* was followed by François Gillet de Laumont's *Rapport sur les différens mémoires de Brémontier* in 1806, and Amédée Boitel's *Du pin maritime: de sa culture dans les dunes* in 1848, and a host of articles were published in *Annales des Ponts et Chaussées* and *Annales Forestières*. It also attracted the attention of foreign observers such as the Scotsman John Croumbie Brown, honorary president of the African Institute in Paris who became a botanist deeply interested in forestry in the Cape Colony, and who published *Pine Plantations on the Sand Wastes of France* in 1878 in Edinburgh. The French forest administration was particularly proud of its achievements on the coastline of southwestern France, and in the conclusion to a book on the dunes and *landes* of Gascony one forester expressed his "patriotic pride" in being able to inform his readers that foresters from all over the world, including England, India, Russia, Sweden, Hungary, Romania, and Holland, came to study the work of the forest administration in the region.⁴⁷

III

While the planting of pines on the coastal dunes of the Landes of Gascony was largely complete by the beginning of the Second Empire, much of the Landes' interior, or its second zone, remained unchanged and tied to a pastoral economy. In 1859 the English traveler Charles Richard Weld wrote that after leaving Bordeaux's rich agricultural hinterland with its verdant vineyards and entering the Landes, "nothing can be more dreary than these apparently interminable wastes."⁴⁸ A few years later, in 1862, the French geographer Elisée Reclus, who was himself born in the Gironde, described how upon leaving Bordeaux the traveler almost immediately found himself in a "plain without visible boundaries and covered with wild plants to the extreme horizon."⁴⁹ Georges Perkins Marsh described the second zone of the Landes as "the most remarkable sand-plain of France," emphasizing its excessive dryness in summer and its inundation in winter, which provided pasturage for a few half-starved flocks of sheep.⁵⁰ Reclus noted that one could travel for whole days before coming upon a "miserable hut, inhabited perhaps by some benighted souls trembling with fevers." Such for him was the resemblance of the French Landes to the "deserts of the Orient."⁵¹

The Landes' silent and barren interior landscape was transformed, just as Gascony's coastline had been, by the planting of maritime pines during the Second Empire, but this time not for the purpose of fixing dunes and preventing sand drift, which threatened agricultural exploitation. However, Grandjean argued that the area's drainage and subsequent *mise en valeur* of 650,000 hectares of barren land

⁴⁷Grandjean, *Les landes et les dunes*, 91.

⁴⁸Quoted in Brown, *Pine Plantations*, 3.

⁴⁹Reclus, "Le littoral de la France: II. les landes du Médoc et les dunes de la côte," *Revue des deux mondes* 46, 3 (1863): 673–702, 673.

⁵⁰Marsh, *Man and Nature*, 511–12.

⁵¹Reclus, "Le littoral de la France," 673.

in the Landes second zone would not have been possible without the prior stabilization of the region's coastal dunes.⁵² The project was conceived of in terms of getting rid of the "*terres incultes*," or uncultivated pastoral commons, in order to transform the entire economy of the region in the name of *mise en valeur*. It built upon the work of engineers, foresters, local property owners, and entrepreneurs who replanted the coastal dunes of the Landes. It was justified, in the words of the engineer who oversaw it, as an amelioration, "as useful to the moral and intellectual development" of the region's inhabitants as to their "physical wellbeing."⁵³

Just as Brémontier was viewed as principally responsible for planting pines on the shifting sand dunes of the southwest, another engineer, François Jules Hilaire Chambrelent (1817–1893), stamped his name on a much larger project: the draining of the heaths and planting pines in the interior of the Landes. Two engineers were thus the embodiment of a new age of expertise, which could be observed in Europe's overseas empires at the same moment, where engineers, land surveyors, and town planners were so busy at work that transformed both urban and rural landscapes.⁵⁴ The two engineers also articulated what Henri Lefebvre would call a new "technological utopia," whose "starting point ... is a knowledge which is at once integrated into, and integrative with respect to, the mode of production."⁵⁵ Chambrelent came to be called the father of the forest of the Landes, just as Brémontier had been the father of the dunes, and Chambrelent was the force behind a law promulgated to implement the project on 19 June 1857, even if the law was largely overseen by the Service Hydraulique and not Ponts et Chaussées, with which he was associated.

Born in Martinique, Chambrelent studied at both the Ecole Polytechnique and the Ecole Nationale des Ponts et Chaussées in Paris. He spent seventeen years in Bordeaux between 1848 and 1865, briefly taking up positions in the Alps, before returning to the city in 1873, where he remained until his retirement in 1882. In 1849 he bought a 500-hectare property on the outskirts of Bordeaux, wishing to experiment in order to find a means to cultivate the inhospitable soil that was subject to drought in the summer and flooding in the winter. He found that this could be achieved by breaking down the topsoil and putting in place at a deeper level a network of irrigation channels that would rid the land of stagnant water. He planted maritime pines and oak. He presented his findings at the Exposition Universelle in Paris in 1855, where his work was praised, and he claimed that his experiments inspired the law of 19 June 1857, which was applied to 291,525 hectares in two departments of the Landes. He published an account of his undertaking and the subsequent "regeneration" of the region in 1887 as *Les Landes de Gascogne: leur assainissement, leur mise en culture, exploitation et débouchés de leurs produits*, claiming exclusive credit for the vast undertaking. Like Brémontier sixty years before him, he did not acknowledge the contributions of others to the enterprise, and most notably, another engineer, Henri Crouzet.

⁵²Grandjean, *Les landes et les dunes*, 89.

⁵³Chambrelent, *Les landes des Gascogne*, 41.

⁵⁴See Gwendolyn Wright, *The Politics of Design in French Colonial Urbanism* (Chicago: University of Chicago Press, 1991); Paul Rabinow, *French Modern: Norms and Forms of Social Environment* (Chicago: University of Chicago Press, 1989); and Timothy Mitchell, *Colonising Egypt* (Cambridge: Cambridge University Press, 1991).

⁵⁵Lefebvre, *Production of Space*, 9.

The 1857 law provided for the draining of the Landes and the cultivation of maritime pines on communal land in the departments of Gironde and Landes, a project that would be undertaken at the expense of the localities concerned. However, in cases in which communes refused or could not finance the initiative, it was to be undertaken by the state, which would then benefit from the proceeds of profits derived from the sale of timber and their cultivation. The law did not apply to private property, but many property owners participated in the project, and the law came to herald the privatization of communal lands, since it also involved the sale of communal land. The planting of maritime pines created a new market economy as the export of resin and timber products would enrich both private landowners and local communes, which in turn funded the building of new roads, rail lines, and schools. The virtues of pine trees and the salubrious odor of resin had already been touted along the Landais coastline, where sanatoria for tubercular patients had been built since the mid-nineteenth century.⁵⁶

In the French administration at the local level there were sharp disagreements over how forestation should be carried out. Engineers employed by Ponts et Chaussées favored privatization and disdained the regime of communal property on which agropastoral groups depended. For Chambrelent, outside private investment and engineering were the principal steppingstones to economic modernization and social progress. Henri Crouzet, by contrast, who was appointed to lead the Service Hydraulique in the department of the Landes in 1853 and who managed the estate of Napoleon III in Solférino in 1856, championed the local landowners rather than outside investors. He was also more concerned about the social impacts of forestation on the local population. Officials like Chambrelent encouraged speculation and the sale of communal land in the wake of the passage of the 1857 law, while many local landowners and the pastoral population decried an excessive market-driven privatization. Jean-Baptiste Lescarret (1818–1898), a local landowner, lawyer, and political economist drafted a petition for the commune of Sagnac-et-Muret in the department of the Landes opposing the sale of communal land to outside investors who, in his view, had no interest in preserving pasturage rights. He also propagated the idea that local landowners would maintain the traditions of an agropastoral economy by providing limited pasturage in their forested property, even though in reality this tended not to come to pass.⁵⁷ Indeed, traditional sheep paths, known locally as *péguilheyres*, were frequently not maintained by local landowners. In addition, opposition to outside investors frequently came from local landowners who did not wish to compete with them. Immediately following the passage of the 1857 law, public land sales to outside investors occurred more often than they did in the department of the Landes, where smaller, local public concessions were more the norm.

Lescarret drove home his critique of the 1857 law, while highlighting its effects on the pastoral populations of the Landes, in a novel entitled *Le dernier berger* (The last

⁵⁶Alice Ingold, "Forêt et côte landaises au secours des tuberculeux," in *Les Landes: Thermalisme et forêt* (Dax: Société de Borda, 1989), 431–35.

⁵⁷Lescarret wrote that it was certainly desirable that the *landes* be drained and planted, "but if this much desired progress can be accomplished while respecting acquired rights ... why reject a solution so natural and just." The May 1856 petition to the prefect is reprinted in Jean-Baptiste Lescarret, *Le dernier pasteur des Landes: essai sur la forestation des Landes de Gascogne* (Tarbe: Cairn, 1998), 141. James Fenimore Cooper's *Last of the Mohicans* (New York, 1990) was first published in 1826.

shepherd), a kind of Landais *Last of the Mohicans*. He wrote it in part in response to reading Edmond About's best-selling novel *Maître Pierre*, which was first published in serial form as "Les échasses de Maître Pierre" in the *Moniteur Universel*.⁵⁸ In effect, he celebrated the achievements of Chambrelent and the 1857 law in the Landes, while Lescarret, who also supported economic development in the region, critiqued the way in which the state went about it.⁵⁹ While About advocated the privatization of communal land through financial speculation in the name of progress, Lescarret lamented the potential social consequences in the name of a moral economy, while upholding the interests of local landowners. He predicted the resistance of the Landes' "pastoral race" to Chambrelent's project because it threatened its livelihood, and he believed that the shepherds would forever harbor a "secret hope to one day take possession of these deserts" which they considered their own.⁶⁰

Unanticipated international events increased the scale of forestation when the 1861 federal blockade during the American Civil War cut off the resin supplies from producers in Virginia, Georgia, Florida, and South Carolina, which led to a dramatic increase in its price. This encouraged further investment in the Landes and led to a renewed drive to plant pine trees, which resulted in a sharp increase in the price of land. Local landowners began to engage in intensive forestation and outside investors flocked to the region. Lescarret lamented the effect of these developments and what he perceived to be over-forestation, in *Le dernier berger*.⁶¹ Shepherds, sharecroppers, and agricultural laborers were in fact the people most adversely affected by the 1857 law because it heralded the gradual disappearance of communal pastures and profoundly disrupted the agropastoral economy.

The efforts to drain marshland and to plant trees in the interior of the Landes were similar to those undertaken concurrently in France's overseas empire during this same period. This was most notable in Algeria, where a settler population expropriated vast tracts of land for agricultural production as well as reforestation, and the colonial administration faced pastoral groups and populations similar to those in the Landes. One geographer has described the modernization of the Landes as "interior colonization," without fully considering the role of local landowners, who were not outsiders.⁶² Since the eighteenth century the pastoral populations of the region had been described in terms similar to those employed in France's overseas colonies. During the *ancien régime*, the Landais or Landescots were routinely described as "savages," and this stereotype persisted in the nineteenth century. The Landais were frequently compared explicitly to Arabs, Bedouins, Tartars, and even Hottentots. In 1798, J. Grasset de Saint-Sauveur characterized the "Landais peasants" as "hardly civilized" because the life that they led made them "almost savage."⁶³

Such appraisals were evident in a popular vaudeville play that opened on 21 October 1811 at the Théâtre des Variétés in Paris entitled the *Les habitants des Landes*, by Charles-Augustin Sewrin.⁶⁴ The play's main protagonist, a servant by the

⁵⁸Lescarret, *Le dernier berger: études des moeurs* (Bordeaux: A.-R. Chaynes, 1858).

⁵⁹*Ibid.*, 151.

⁶⁰The 1889 preface to *ibid.*, 37.

⁶¹Edmond About's novel was published in the same year: *Maître Pierre* (Paris: Hachette, 1858).

⁶²Julien Aldhuy, "La transformation des Landes de Gascogne," 2–19.

⁶³Grasset de Saint-Sauveur, *Voyage à Bordeaux et dans les Landes où sont décrit les moeurs, les usages et costumes du pays* (Paris: Pigoreau, 1798), 10.

⁶⁴Charles-Augustin Sewrin, *Les habitants des Landes, comédie en 1 acte* (Paris: Barba, 1817).



Figure 2 “Les habitans des Landes, vaudeville de Sewrin: costume de Pauline(Clareine), dessiné par Joly, 1811. Source: gallica.bnf.fr/Bibliothèque nationale de France.

name of Tremblin, accompanies his master to the wilds of the Landes where he meets Clareine, the daughter of a sharecropper, who, in one of the play’s illustrations, stands under a pear tree close to a shepherd on stilts (figure 2). The characters also include an African, whom Tremblin encounters in the Landes (figure 3). This is perhaps a passing reference to the Bordeaux’s slave trade, as Bordeaux ship owners transported more than 150,000 Africans across the Atlantic in the seventeenth and eighteenth centuries; Bordeaux was the second largest port of entry for African slaves into France, behind Nantes.⁶⁵ In scene XI of the play, the main character Tremblin finds

⁶⁵See Eric Saugera, *Bordeaux, port négrier: chronologie, économie, idéologie, XVII–XIX siècles* (Paris: Karthala, 1995); and Danièle Petrisans-Cavaillès, *Sur les traces de la traité des noirs à Bordeaux* (Paris: L’Harmattan, 2004).



Figure 3 “Les habitans des Landes, vaudeville de Sewrin: costume de Brunet (Tremblin), dessiné par Joly, 1811.” Source: gallica.bnf.fr/Bibliothèque nationale de France.

himself alone and sitting on his suitcase and exclaims, “What deserts ... [we] must be far from France ... because it’s so different from the Touraine where I was born.”⁶⁶ He starts reading a book, *Voyage in the Land of Hottentots*, which refers to Africa. He notes in his reading that the Hottentots are unusually tall, and at this moment two Landais then enter the stage on their stilts, clothed in sheep skins. The Landais were thus represented in numerous drawings and paintings and finally in photography by the end of the nineteenth century. Tremblin also observes that their huts resembled those of people he refers to as “Canadians” (meaning First Nations in Canada and Native Americans in the United States). Putting the book aside, he thus draws a connection between what he is reading and what he sees around him, exclaiming

⁶⁶Sewrin, *Les habitans des Landes*, 18.

"I am in Africa!"⁶⁷ The prefect of the department of the Landes wrote a little over a decade later, in 1826, "Many things remain to be done in the Landes before civilization is raised to the level that it has reached in the rest of France."⁶⁸

The Landescots were also referred to as France's "Hurons, Asiatics, and Papuans" of New Guinea, who had allegedly resisted the appeals of civilization and exhibited for many in France their "shameless barbarity, in the heart of France, near the birthplace of Montesquieu and Montaigne."⁶⁹ In 1837 François-Vatar Jouannet, in his *Statistique du département de la Gironde*, called the Landescot the "Arab of the Aquitaine" and asserted that the "Landescot has something Arab in a physical and moral sense."⁷⁰ As late as 1859, Henry Ribadieu asserted that the desert of the Landes was as "unknown" as far away savannahs of Missouri and Central Africa and that its pastoral population were the "Arabs and the Indians of our *landes*," whose only home was "this great sandy desert, the Sahara of France." Yet he predicted that these surviving "savages" were "no doubt destined to disappear": "Civilization will in effect hunt them down, as American colonization did in the United States."⁷¹

These kinds of comparisons may have been aided and abetted by the practice of putting "natives" (*indigènes*) from other areas of the world on display in European cities, which began with the Universal Exhibition of 1867. By 1877 yearly exhibitions were held at the Jardin d'Acclimatation in Paris. The symbolist painter Odilon Redon (1840–1916), who was born in Bordeaux and began his career painting the landscapes of the Landes, commented, after seeing a group of "sublime barbarians" from Tierra del Fuego at the Jardin d'Acclimatation in 1881, "haughty, cruel, powerful, grotesque, they gave me a dream of primitive life, a nostalgia for the pure and simple life of our origins."⁷² Redon's wife, Camille, was less admiring in her appraisal of the Landais and revealed that her husband was also less positive about the Landescot in private. Writing to an art critic from their home in the Landes in 1891, she exclaimed, "What savagery here! Redon claims there is little difference between the peasantry of the Landes and the natives of Dahomey."⁷³ (Dahomey "natives" constituted another display at the Jardin d'Acclimatation in Paris in 1891.)

Colonial administrators and European settlers also came across indigenous pastoral populations in France's overseas empire, where they were viewed as obstacles to agricultural and sylvicultural development. In 1846, for example, the Algerian colonial administration began to grant long-term leases or concessions of large tracts of forested land to wealthy French entrepreneurs, who wished to develop land that possessed lucrative Aleppo pine and cork trees. With the help of forest officials, they effectively barred the Arab pastoral populations from their traditional use of the land, which included livestock grazing and periodic brush fires.

By the 1850s a similar process of displacement occurred in the Landes. Engineers, businessmen, both influenced by Saint Simonian ideas, as well as local property

⁶⁷Ibid., 19.

⁶⁸Charles Lemercher de Longpré Haussez, *Etudes administratives sur les Landes* (Bordeaux: Gassiot, 1826), 298.

⁶⁹Sargos, *Les Landes*, 8.

⁷⁰Quoted in Sargos, *Histoire de la forêt landais*, 59.

⁷¹Henry Ribadieu, *Voyage au bassin d'Arcachon: Le Sahara de la France* (Paris: J. Tardieu 1859), 17–18.

⁷²Quoted in Barbara Larson, *The Dark Side of Nature: Science, Society and the Fantastic in the Work of Odilon Redon* (University Park: Pennsylvania State University Press, 2005), 81.

⁷³Quoted in Larson, *Dark Side of Nature*, 81.

owners and Emperor Napoleon III himself, saw new economic opportunities for the Landes' interior desert wastes. (Napoleon III purchased property in the region and renamed the commune in which he purchased it Solférino, after his victorious battle.) For entrepreneurs, landowners, and the French state the vast uncultivated spaces used by pastoral populations cried out for agricultural development guided by a policy of *mise en valeur*. The Saint-Simonians Emile and Isaac Periere, who had spent their childhood in Bordeaux and knew the region well, ensured that rail lines extended to the coastal town of Arcachon where they bought 140 acres of land and built a casino, and they helped to turn the town into a fashionable resort that came to be frequented by Europe's high society. Their projects marked the beginning of a lucrative tourist industry on the coast of southwestern France, where the well-heeled flocked in the second half of the nineteenth century,

Just as importantly, a number of property owners and entrepreneurs put their full weight behind the creation of new forests in the Landes. Two *polytechniciens*, Pierre-Euryale Cazeaux and Cambrelent himself, wrote to Emile Periere as early as 1839 asking for his support.⁷⁴ While the effort to plant the vast, allegedly empty spaces of the Landes with maritime pines was largely successful, it engendered responses that were similar to those among the pastoral populations of Algeria, who were displaced by the exploitation of North Africa's cork forests in the last quarter of the nineteenth century, and in other parts of the French empire.⁷⁵ Statistics suggest that there was a significant increase in the number of forest fires in the departments of the Landes and the Gironde between 1868 and 1872, and more particularly on communal land that had been planted after 1857.⁷⁶ Significantly older forests and the newly planted dunes on the Atlantic coast were largely spared, but they affected the young pines planted after 1857 in the Grandes Landes. The sharp increase in the number of forest fires in the department of the Landes after the passage of the 1857 law led to the creation of a commission to study the problem, and a report that was produced by Henri Faré, director general of the Forest Administration, which attested to the severity of the problem.⁷⁷ Annexe 10 of the report constituted a table of all forest fires that occurred each year in forests that had existed before and after the 1857 law. Fire burned only about 7,106 hectares of communal and privately owned forests that had been planted before 1857 during these years, only 220 hectares of those comprised communal forested land, whereas a total of 18,360 hectares of forest planted after 1857 were subject to fire and 9,306 belonged to newly planted confiscated communal forests.⁷⁸

In the Landes and in Algeria forest fires emerged as a persistent problem, and the pastoral populations in both metropolitan France and colonial north Africa were held

⁷⁴François Leblond, *Ces Saint Simonians qui ont construit la France moderne* (Paris: Librinova, 2015).

⁷⁵For Algeria, see David Prochaska, "Fire on the Mountain: Resisting Colonialism in Algeria," in Donald Crummey, ed., *Banditry, Rebellion, and Social Protest in Africa* (London: Heinemann, 1986); and Caroline Ford, *Natural Interests: The Contest over Environment in Modern France* (Cambridge: Harvard University Press, 2016).

⁷⁶The numerous fires in the region are well documented in the archives of the department of Gironde. On brush and forest fires between 1817 and 1893, see Archives Départementales de la Gironde 1M1017.

⁷⁷Henri Faré, *Enquête sur les incendies de forêts dans la région des landes de Gascogne: Rapport à monsieur le ministre des finances* (Paris: Imprimerie Nationale, 1873).

⁷⁸Annexe no. 10, "Tableau récapitulatif, année par année pour le département des Landes, des incendies des forêts dans le cours de la période 1858 à 1872," in *ibid.*, 372.

responsible, as they were in other parts of the world. In Algeria, a League for the Reforestation of Algeria was established in the 1880s in order to regenerate the desert wastes of North Africa, and its founder Dr. Paulin Trolard wrote that “every deforested country is condemned to death,” and that areas not destroyed by pasturage were destroyed by the “incendiary Arab.”⁷⁹ A government official who had a job with the forest service added that “it is above all we Europeans who claim to bring civilization here” and who should take charge of the cause of conservation.⁸⁰ Similarly, a property owner by the name of Tessier from Lacanau, a coastal commune in the Gironde, wrote in a 1873 pamphlet entitled *Enquête sur les incendies dans les Landes* that 200,000 hectares of communal land that had been used for pasture had been sold as a result of a 1857 law that provided for the extensive plantation of maritime pines, and that while the “transition” represented “progress,” an “ignorant population, lost in its solitude” did not see it as such.⁸¹ According to Tessier, “they saw themselves as being dispossessed by foreigners,” and some resorted to arson.⁸² Faré and his commission took forty-nine depositions exclusively from prominent landowners, elected officials, and government administrators. Many observed that most of the fires occurred on what was formerly communal land that had been sold and planted with pine in the previous twenty years.⁸³ Others affirmed that most of the fires were the result of “malveillance,” malevolence, on the part of the pastoralists. Still others saw the fires as a result of the “existing antagonism” between pastoral and silvicultural interests and they had some sympathy for the plight of the shepherd, suggesting that the 1857 law be suspended.⁸⁴

Alexandre Léon, vice president of the Conseil Général of the department of Gironde and president of the 1870 commission on forest fires, summarized the situation in the region by saying that the law represented a frontal attack on the pastoral economy. He posited that the cause of the fires, as all those deposed had attested, was the work of the pastoralist and that one could only have “pity for him in thinking about the conditions in which he lives.”⁸⁵ After a successful “pacification”—a term that was also used by the French in Algeria—he claimed that the shepherds seemed to understand that there could be some way to reconcile the pastoral economy and the silvicultural economy.⁸⁶

To what extent did the pastoral populations of the Landes survive? Writing in 1881, thirty years after the first publication of *Le dernier berger*, Jean-Baptiste Lescarret wrote that “it is this state of transition and of struggles” that he wished to

⁷⁹Quoted in Ford, *Natural Interests*, 149.

⁸⁰Quoted in *ibid.*, 150.

⁸¹Hippolyte Tessier, *Enquête sur les incendies dans les Landes: lettre à M. E. Lecouteux* (Paris: Librairie Agricole de la Maison Rustique, 1873), 7. Fires that had been ongoing in the region generated other responses from property owners in the Gironde, such as L. Le Chatelier from Lugos in the Gironde, who published *Note sur les mesures à prendre pour prévenir la propagation des incendies dans les Landes* (Paris: Librairie de la Maison Rustique, 1873).

⁸²Tessier, *Enquête sur les incendies dans les landes*.

⁸³Testimony of M. Callen, conseiller général of Saint-Symphorien in the Gironde, in Faré, *Enquête sur les incendies*, 12.

⁸⁴Testimony of M. Cazavielh, conseiller général of Belin in the Gironde, in Faré, *Enquête sur les incendies*, 18.

⁸⁵*Ibid.*, 59.

⁸⁶*Ibid.*, 402.

document, while presenting the people who participated in “this double current of hope and regret.”⁸⁷ In the Landes the battle for “civilization” was ultimately won by the state and individual property owners. The shepherd or *échassier* became a quaint figure of the past and his children were transformed into *résiniers*, or resin collectors, captured in the black and white photographs of amateur folklorist Félix Arnaudin. The shepherd on stilts would eventually disappear from the landscape of the Landes, but some in the region tried to draw attention to his skills and were alarmed that silvicultural development would bring an end to the shepherd’s way of life. In 1889, Sylvain Dornon, a baker from the coastal town of Arcachon, walked 600 kilometers on stilts from Arcachon to Paris, where he climbed to the second floor of the Eiffel Tower, which showcased that year’s Universal Exhibition. He followed this with another 2,800-kilometer journey in 1891 to Moscow, site of the Franco-Russian Exhibition, completed in fifty-eight days.⁸⁸ It is significant that Dornon was not himself an *échassier*, but an urban admirer of them with a keen interest in a regional culture. Many of the shepherds themselves who became resin collectors traded in their *tchanques* (local dialect for *échasses* or stilts), for *piteys* (a single-pole ladder that was used to bore holes in pine trees to extract resin.)

The often-triumphalist discourse of state engineers, local entrepreneurs, and later environmentalists hid the consequences of the forestation and the appropriation of communal land for the region’s pastoral population, in much the same way that indigenous populations in North Africa, North America, and Asia would experience displacement, as the American environmental historian William Cronon and James Scott have so poignantly shown. Cronon has argued in a controversial essay how the idea of “wilderness” in North America came to be viewed in positive terms, as a “pristine sanctuary,” where the last vestiges of an untouched and transcendent nature could be found, and that a newly redefined idea of wilderness was necessarily predicated on not acknowledging the prior presence of its human inhabitants.⁸⁹ The world of the *échassier*, however, had an afterlife. In 1972 the Lous Tchancaÿres, the Groupe Folklorique d’Échassiers Landais, was formed in Mont-de-Marsan, the capital of the department of the Landes. The “Lous Tchancaÿres” (the name for stilt-walkers in the local dialect of the Landes), and its members’ goal was to perpetuate the customs of their ancestors through music and dance on stilts, which they perform year after year at folklore festivals both nationally and internationally.⁹⁰

IV

By the twentieth century the Landes had become a landscape invested with new meanings, a site of nostalgic longing and loss, as the reflections of Félix Arnaudin on the moorlands of the region attest: “Now, the moorlands are gone. In the place of the magnificent desert that enchanted our forebears, unfolding under the sky, empty as the earliest ages, the vast plain, without limits where the eye was perpetually dazzled by emptiness ... [in place of these] now there is the forest—the industrial forest! ...

⁸⁷Lescarret, *Le dernier berger*, 37.

⁸⁸Sylvain Dornon, *58 jours sur les échasses: de Paris à Moscou* (Bordeaux: G. Gounouilhau, 1892).

⁸⁹Cronon, “Changes in the Land,” 69–90.

⁹⁰At <https://lous-tchancaÿres.fr/en/home> (last accessed 9 July 2022).

whose suffocating curtain forcibly limits the view, dulls the mind, and prevents it from soaring [away].”⁹¹ He also lamented the effects of forestation on the passing of a way of life: “Nothing remains of the old way of life, which suffused such originality, such primitive simplicity into our old hearths: ideas, traditions [*moeurs*], and customs, even language itself, with the first shove from outside, all disappeared, all lost their shape or faded in front of our eyes with stupefying speed.”⁹² Commenting on the social change and displacement wrought by forestation in the Landes, he ultimately concluded that “nothing remains of our old way of life” and “the rupture with the past is now complete.”⁹³

Nostalgia implies, in the words of Svetlana Boym, a “sentiment of loss and displacement” as well as “a romance with one’s own fantasy.” It is necessarily a “historical emotion” that is closely linked to modernity and to largescale political, social, and economic change.⁹⁴ However, the spatial dimension of nostalgia is often given short shrift. Longing for an imagined wilderness, for peopled or unpeopled landscapes, is an inherent part of their valorization, and this is no less true of the Landes. In 1866 the popular science and nature writer Arthur Mangin published *Le désert et le monde sauvage*, in which he celebrated deserts as places where nature “maintains its inviolability from encroachment of human actions.”⁹⁵ While much of the book was devoted to deserts in other parts of the world, he argued that the presence of the Landes demonstrated that the French could have a taste of the desert and a primordial forest without leaving France. The desert and the forests of the Landes left a profound impression on him, which he ironically contrasted with another forest that was also replanted with pine by French forest officials, albeit Baltic pines, in order to revitalize an older forest: the once royal forest of Fontainebleau. While the pine plantations were applauded by the forest administration, the Barbizon School painters who flocked there from the 1840s to the 1860s, and who were largely responsible for parts of the forest being designated as France’s first protected natural site in 1861, derided the pines as “foreign vegetation,” which gave Fontainebleau a soulless aspect reminiscent of the Russian steppe. Mangin spoke contemptuously of Fontainebleau because it lacked the wild aspect of the Landes, and it was precisely this wild aspect, which had previously been so denigrated, that came to be valorized.⁹⁶ “Wildness” as an idea and as a reality had come full circle, from being abhorred, to becoming something to be celebrated.

The Landes’ next environmental chapter was one in which the landscape came to be invested with new symbolic meaning associated with the nation’s heritage or *patrimoine*. The process by which an environmental space becomes heritage, the “patrimonialization” of a space, is a social and political act that constitutes selecting a

⁹¹Quoted in Pooley, *Body and Tradition*, 32–33. Pooley argues, though, that the importance that even Arnaudin attached to the Landais landscape came to him quite late.

⁹²Ibid., 33.

⁹³Ibid.

⁹⁴Svetlana Boym, *The Future of Nostalgia* (New York, 2001), 3. Also see David Lowenthal, “Nostalgia Tells It like It Wasn’t,” in Christopher Shaw and Malcolm Chase, eds., *The Imagined Past: History and Nostalgia* (Manchester: Manchester University Press, 1989), 27.

⁹⁵Mangin, *Le désert et le monde sauvage*, 7.

⁹⁶Ibid., 12.

space that carries a set of aesthetic, historic, or ecological values to justify its preservation for its transmission to future generations.⁹⁷ The patrimonialization of the Landes—and its transformation from a devalored desert into a productive timber- and resin-producing forest before its appropriation as a site of environmental and patrimonial protection—shows the ways in which the landscape became implicated in larger debates about social change, capitalist production, economic and social progress, and finally, heritage preservation. It also attests to the complex historical process by which space is produced and reproduced in the dialectical relationship that exists between what Henri Lefebvre has called perceived, conceived, and lived spaces that a myriad of historical actors negotiated across three centuries.

The patrimonialization of the Landes was translated into the creation of a natural regional park, the Parc Naturel Régional des Landes de Gascogne, on 16 October 1970, in order to protect a rich but nonetheless vulnerable “natural” site with the mission of preserving the nation’s natural heritage or *patrimoine*. As part of the Federation of Natural Regional Parks, the Parc Naturel des Landes was created, like the other parks, to protect rural spaces whose landscapes, natural sites, and cultural patrimony were of exceptional quality, but fragile.⁹⁸ The irony, of course, was that the forested landscape that comprised most of the park was in many respects an artificial, invented landscape, which reminds us of American poet and environmentalist Wendell Berry’s adage, “The more artificial a human environment becomes, the more the word ‘natural’ becomes a term of value.” The Parc Naturel des Landes was one of the earliest *parcs naturels régionaux* established in France and consisted of 336,000 hectares of predominantly forested land that occupied 51 communes, twenty-seven in the department of the Gironde and twenty-four in the department of the Landes.⁹⁹ Aude Pottier has suggested that by the twenty-first century foresters in the region viewed the silent forests of the Landes as both a site of productive cultivation and patrimonial space.¹⁰⁰

Before and after the Second World War the Landes began to attract urban dwellers and tourists alike, among the more famous being Charlie Chaplin, Gabrielle (Coco) Chanel, Salvador Dali, and Winston Churchill. Churchill spent many summers in Mimizan on Gascony’s coast, where he first began to develop his skills as a painter. In 1965 the Socialist leader François Mitterrand purchased an eighteenth-century shepherd’s cottage in the commune of Latche in the department of the Landes, which bore witness to the region’s longer history and the memory of its pastoral past.¹⁰¹ During his last year as president of France, in 1995, he called the forests of France integral parts of “our collective patrimoine” in his introduction to a European colloquium entitled “La forêt: les savoirs et le citoyen.”¹⁰²

⁹⁷For a discussion of “patrimonialization,” see A. Mecoud, “Patrimonialisation: dire ce que nous relie?” in Christian Barrère et al., eds., *Réinventer le patrimoine de la culture à l'économie, une nouvelle pensée du patrimoine?* (Paris: L'Harmattan, 2005), 81–96; and Aude Pottier, “Quand la forêt devient patrimoniale: les enjeux du cadre forestier du Bassin d'Arcachon,” *Sud-Ouest Européen* 30 (2011): 125–38.

⁹⁸At <https://www.parcs-naturels-regionaux.fr/les-parcs/comprendre-les-parcs> (last accessed 9 July 2022).

⁹⁹By 2016, France had forty-eight regional parks that occupied about 15 percent of French national territory.

¹⁰⁰Aude Pottier, “Le massif forestier des landes de Gascogne, un patrimoine naturel? Le regard des gestionnaires,” *Annales de Géographie* 123, 698 (July–Aug. 2014): 1016–38.

¹⁰¹Yves Harté and Jean-Pierre Tuquoi, *Latche: Mitterrand et la maison des secrets* (Paris: Seuil, 2021).

The Ecomusée de Marquèze that was created by and in the Parc naturel régional des Landes de Gascogne was France's first *écomusée*, a term coined by the French museologists Hugues de Varine and Georges Henri Rivière in 1971. Its purpose was to preserve and transmit the heritage of the Grande Landes by reconstituting the lifestyle of its inhabitants in the nineteenth century: "A hundred and fifty years ago, this original society of shepherds-farmers had such a symbiotic relationship with its environment that it disappeared when the *landes* made way for the forest. Marquèze tells the story of the unique bond between a society and its environment, its economic, cultural, or social consequences in one of the largest open-air museums in France."¹⁰³ The curators transferred original buildings from the surrounding countryside to the site as well as sheep and other animal life. Currently France has more than 590 *écomusées* devoted to the nostalgic recovery or recreation of social and environmental spaces that have been transformed beyond all recognition.¹⁰⁴ Such is the case of the *écomusée* of Marquèze, which is a testament to the environmental transformation of the "empty space" of the Landes.

The significance and impact of the transformation of the Landes from an alleged "empty space" to a productive, commodified, forested space and then to an aesthetic landscape must be understood first through the lens of state-building and state-sponsored development schemes in the eighteenth and nineteenth centuries that have a long history in France and elsewhere. Like agricultural "modernization" schemes studied by James Scott, the land reclamation and forestation projects undertaken in the Landes had unintended consequences and disrupted the lives and livelihoods of many of its inhabitants.¹⁰⁵ Those who undertook these projects were guided by strategies and practices that colonial administrators deployed in France's overseas empire, and they made similar assumptions about the pastoral groups who resisted them. The Landes' environmental transformation must also, however, be understood as a consequence of the development of a new agro-capitalist and silvo-capitalist economy that profoundly altered the region's economy and social relations, resulting in what Henri Lefebvre has described as new "conceived" and "lived" spaces. Finally, the reconstitution of the "wild" landscape that accompanied the Landes' environmental transformation led, ironically, to the patrimonialization of a man-made "natural" environment that the Landes had become.

The end result of the "changes in the land" in southwestern France by state engineers, foresters, and local landowners was to create an environmental space in which the boundary between a natural and invented landscape became indistinct. The natural landscape of the Landes, as it was perceived and lived by those who inhabited it, gradually dissolved into the artificial landscapes created by land reclamation and development projects before they were recuperated and redeployed by environmentalists committed to both their preservation and conservation as the nation's "natural" heritage.

¹⁰²Daniel Meiller and Paul Vannier, eds., *La forêt: les savoirs et le citoyen, colloque européen* (Chalon-sur-Saône: ANCR, 1995).

¹⁰³At <https://www.marqueze.fr/l-ecomusee-de-marqueze-landes/histoire-et-projet-de-l-ecomusee-de-marqueze.html> (last accessed 9 July 2022).

¹⁰⁴At <https://museedupatrimoine.fr/theme-1/musees-de-france/4-musees-populaires-et-ecomusees.php> (last accessed 9 July 2022).

¹⁰⁵Scott, *Seeing Like a State*.

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