

‘the age of wood’: FUEL AND FIGHTING

IN FRENCH FORESTS, 1940-1944

ABSTRACT

Through a case study focusing on southeastern France, this article traces the history of French forests during World War II. For the Vichy regime the forest was not only a vital source of replacement products in a time of severe shortages, but also a habitat that could symbolize elements of Vichy’s reactionary worldview. However, from late 1942 onward, resistance movements began physically and imaginatively to reclaim the forest from Vichy, turning it into a space of revolt and subversion. German and Italian occupation challenged French control of the forest, undermining Vichy’s production drive, and turning forests into sites of armed conflict. By arguing that forests were an integral component of France’s wartime history, this essay contributes to both the established historiography on Vichy France and the emerging literature on environmental histories of war.

IN JEAN GIONO’S short story, *The Man Who Planted Trees*, the narrator wanders across a “landscape of unparalleled desolation” in “the ancient region where the Alps extend into Provence.” In this arid, sparsely populated region he meets a serene shepherd, Elzéard Bouffer, who has selflessly taken it upon himself to plant thousands of oak and beech trees in the dry soil to save this region from dying because of a “lack of trees.” After five years in the army and desiring “to breathe some fresh air,” our traveler returns to find that while he was fighting at Verdun in 1915 the good shepherd was sowing “beautiful birch plantations.” When war breaks out again in 1939, their remote location saves the shepherd’s trees from being turned into fuel and the war passes Bouffer by: “he didn’t even know about it ... going peacefully on with his task, ignoring the 1939 war just as he’d ignored the war of 1914.”¹

In Giono's tale the trees escape the ravages of war, allowing them to exert their healing influence on the region. In reality, however, France's forests did not escape World War II, and between 1940 and 1944 they were overexploited and transformed into sites of combat and political appropriation. Forests, then, were an integral component of France's wartime history. As one forester claimed in 1942, "having seen the age of iron we are today experiencing the age of wood."² This history, however, remains to be written. Environmental historians of France have largely overlooked the impact of World War II on French forests, concentrating instead on the pre- and post-war periods or forest history during the World War I.³ Similarly, the historiography of France's "dark years" has barely begun to consider the environmental history of this period.⁴ With this lacuna in mind, this article represents a starting point for approaching French wartime history from an environmental perspective. Furthermore, it aims to contribute to the growing body of literature on environmental histories of war, which have so far approached the relationship between wood and war through the lens of resource depletion and forestry practices.⁵ Missing from these accounts are localized variations and inconsistencies, as well as the cultural significance of forests during wartime.

To redress the balance, this article considers the interconnecting material and cultural history of forests during wartime through a case study of forests in southeastern France, a region comprising Provence and the Southern Alps. This region makes a particularly useful case study for both its ecological and political variety. Ecologically, this area contains a range of forest types, from the beech trees of the prealpine Vercors mountain range to the Mediterranean forests hugging the Provençal coastline. Politically, the region experienced numerous political and military authorities between 1940 and 1944; it formed part of the "Unoccupied" Zone governed by the Vichy regime and was subsequently under both Italian and German occupations.⁶ Moreover, apart from isolated Alpine battles with Italian troops in June 1940, the region was largely free of sustained military combat until the Allied landings of August 1944. As such, the region allows for an analysis of both the indirect and direct ecological ramifications of warfare. Where necessary, however, I draw on examples from outside this region, such as the Tronçais forest in central France.

Using this regional case study, I argue that forests constituted a vital source of replacement products at a time of severe material shortages and, as a consequence, the Vichy government strove to increase forest productivity. But forests were not just material spaces since traditionalists within the regime, including its aging leader Marshal Philippe Pétain, imbued the forest with meanings informed by their reactionary worldview. However, from late 1942 onward, resistance movements began physically and imaginatively to reclaim the forest from Vichy, turning it into a space of revolt and subversion. Alongside these changes, the history of forests in wartime France contained elements of continuity. Vichy's material and cultural mobilization of the forest was the latest in a long tradition of state forest control, while the French forestry administration (*Administration des Eaux et Forêts*) also strove to uphold its policies regulating

Map 1. France Divided, 1940-1944.



Map by Drew Ellis.

France's forests during this time.⁷ This was no easy task because German and Italian occupation armies wrought havoc among the trees, challenging French control of the forest and undermining Vichy's efforts to boost forest production. Throughout the war years, this varied human activity left a deep ecological footprint, necessitating the forest's reconstruction in the postwar era.

CREATING THE PRODUCTIVE FOREST

AFTER THE FRENCH MILITARY defeat in the summer of 1940, severe material shortages meant that the forest played a vital role in ensuring the continuation of any semblance of normal existence. Wood-derived products seeped into all areas of the economy and "everyday" life. In the words of Charles Colomb, general director of the forestry administration; "today the French turn a look charged with hope towards their forests ... almost everyone expects something from [them] that will help them survive these difficult times: householders need fuel for their fireplace; farmers, litter for their animals; bakers, wood for their ovens; tanners,

Figure 1. *Gazogène*-fueled Automobile.

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Using the “gas of the forest”: a Citroën car converted to operate on *gazogène*.

bark for their leather; transporters, wood or wood charcoal for their *gazogènes*; and finally, industrialists [need] raw materials ... for their businesses.” As Colomb’s remarks indicate, wood kept the French warm and baked their bread, as coal and oil supplies were limited or non-existent. War, defeat, and occupation “turned the clock back” and the French rediscovered wood’s importance as a fuel. Alongside these “traditional” uses for wood, forests provided replacement products for industrial materials that were “particularly deficient.”⁸

Severe petrol shortages posed a particular problem and wood stepped into the breach in the form of *gazogènes*, vehicles modified so that they could be powered by wood or wood products. In 1938, *La gaz de forêts* promoted *gazogène* fuel, urging the French to realize the potential of the “gas of the forest.”⁹ But it was only after 1940 that *gazogènes* began to be taken seriously. Motoring associations organized exhibitions promoting *gazogènes* and Vichy introduced measures to encourage drivers to convert their vehicles (a metal furnace attached to the vehicle was fed with wood or wood charcoal to power the engine).¹⁰ *Gazogène* vehicles did not work as smoothly as petrol ones, but, as one eyewitness remembers, “at least they ran.”¹¹ It is therefore no surprise that wood and wood charcoal production for *gazogènes* increased from pre-war figures of approximately fifty thousand tons a year to almost half a million tons in 1943. As

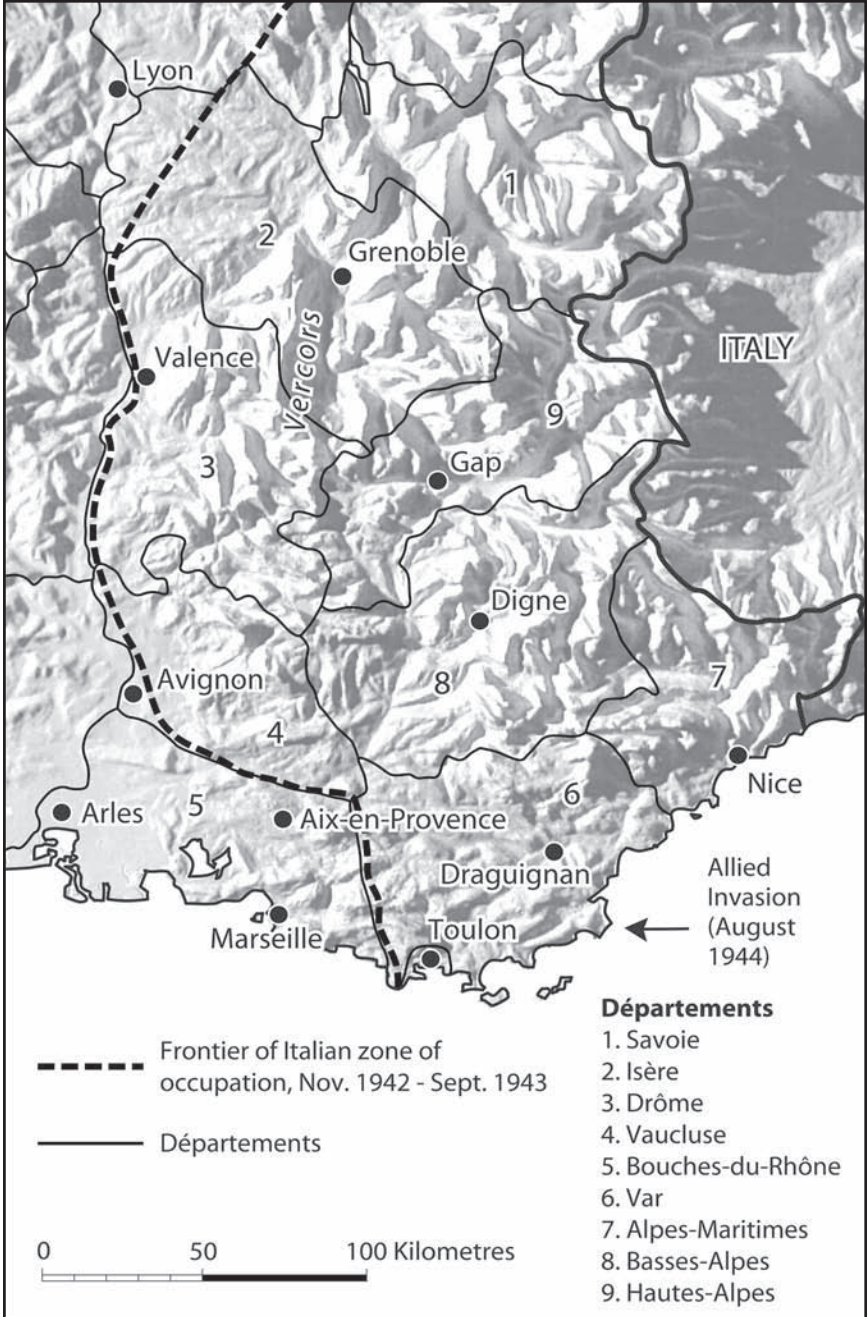
the case of *gazogène* amply illustrates, wood had become the “substitute par excellence.”¹²

Both state and private foresters reveled in the rediscovered importance of wood, and there was a sense of satisfaction that after years of indifference the French finally appreciated the forest. One article detailed, with evident glee, how military defeat had brought about the “revenge” of the forest. After years of neglect, the forest now saw “coming back to her, anxious and distraught, all those who abandoned her. [But] she is good and without bitterness. She will provide the wood that is now indispensable so that we can eat our daily bread and keep away the cold this winter.”¹³ Foresters nurtured the notion that the forest was forever ready to make the necessary sacrifices to ensure France’s survival. One argued that “in times of crisis, it’s always towards the forest that the nation turns to demand ever varied and ever increasing sacrifices.”¹⁴ Another concurred, arguing that after the defeat “the French forest, symbol and refuge of the soul of the country, is ready, once more in our history, to serve and to save” the nation.¹⁵ Wood, asserted *Le Bois National*, was now “as important to the country’s economy as wheat, meat, wine or potatoes.”¹⁶

With increased demand for forestry products, Vichy reorganized French forestry in order to “mobilise the country’s forestry resources.” Most significantly, the law of August 8, 1940, obliged all owners of forests over ten hectares to exploit 50 percent more wood than normal and it set fines for non-compliance. With such measures, Vichy increased state control over private forests, strengthening laws and structures introduced by the Third Republic during the “phony” war. Like other land-based activities, such as farming and hunting, the forestry sector was brought in line with Vichy’s plans for a corporatist society through the law of August 13, 1940, which created *Groupements interprofessionnels forestiers* (Inter-professional forestry groups, or GIFs) in each region.¹⁷

Forestry reorganization was accompanied by a wartime reforestation crusade. Although tapping into existing deforestation concerns, the political, social, and military situation of post-1940 France provided excellent conditions in which to stress reforestation’s importance. Both state and private foresters identified reforestation as part and parcel of the rebuilding of defeated France; “just as a country which deforests is a country which dies, a people who want to be reborn are a people who reforest ... our duty, in the forestry domain as in all others, is to collaborate with the work of reconstitution.”¹⁸ Arthur Dugelay, Nice’s forestry inspector, explicitly linked reforestation with Vichy’s “back to the land” program; “the return to the soil ... appears as a primordial factor of the balance which must mark the reconstruction of our country.”¹⁹ Other publications urged France to *reboiser* (reforest) and linked reforestation with Vichy’s drive to cultivate as much as possible of French soil. L. Padré, a retired forestry official, argued that it had become “more and more necessary, urgent even, to take the maximum and best parts from the French soil, as well as exploiting all unproductive ground, [and] increasing the yields of all land which, for diverse reasons, can produce more and better. Reforestation is, certainly, one of the best and most certain ways of obtaining these improvements.”²⁰ Vichy legislated in favor of reforestation and

Map 2. Southeastern France, 1940-1944.



Map by Drew Ellis.

although some practical measures were achieved, it seems that wartime reforestation overwhelmingly failed. Indeed, geographer Raoul Blanchard

believed that since 1942, foresters “had been too occupied for us to imagine that a single hectare of [forest] has been added.”²¹

To meet the growing demand for wood, more and more workers were dispatched to the forest. As well as boosting forestry production, this migration to the forest corresponded with the regime’s “back to the land” ethos and diverted young unemployed men who might otherwise be a source of social unrest. The forestry administration’s director general summed up this attitude, arguing that forest exploitation both “ensures work for the demobilized and those workers fired from munitions factories, and ... prepares the ‘return to the soil.’”²² The *Chantiers de la Jeunesse* youth movement brought thousands of young men to the forest, where it provided them with a patriotic education and manual labor. Its leadership was keen to highlight the productivity of this forestry work (which also included developing forestry infrastructure and creating reforestation plantations) as it demonstrated that the organization actively contributed to the survival and renovation of France.²³ However, despite the *Chantiers’* efforts, wood supplies failed to meet demand.

FORESTRY PRODUCTION PROBLEMS

THE FAILURE TO MATCH timber supply with demand highlights once again the discrepancy between the Vichy regime’s intentions and the reality of life between 1940 and 1944.²⁴ France desperately needed to boost forestry production (its timber imports dropped from 2,400,000 m³ to 100,000 m³ during the war), but statistics provided by the postwar *Commission consultative des dommages et des réparations* (CCDR) suggest that construction- and industry-grade timber production did not rise significantly during the war, despite the growing demand.²⁵ Vichy officials were well aware of these problems. In March 1942 a governmental report emphasized that the “country can’t meet its wood needs” and that “stocks have fallen to almost nothing.” Mines needed 40 percent more wood than they received in order to produce at capacity, and there were problems replacing railway sleepers and wagons. In addition, wood was lacking in the cities “to such an extent” that “worse social dangers” threatened to strike in the coming winter.²⁶

The problems hampering forestry production were multiple. For a start, Vichy’s control over the forest was incomplete. The regime’s legislation excluded owners of forests of under ten hectares, a policy criticized by Formery, inspector general for finances, as it allowed these owners “the unbelievable privilege ... [of] being able to leave an indispensable resource unemployed, or even sell it as they wish on the black market.”²⁷ Manpower shortages also represented a major headache. There was a lack of experienced *bûcherons*, or woodcutters (approximately 35 percent of French *bûcherons* languished in German prisoner of war camps), and the new *bûcherons* apparently were unable to replicate the expertise of professional lumberjacks. Indeed, the general secretary of the GIF Central Committee believed that some new exploiters had an “incurable inaptitude” for the occupation, concerns that were echoed on a local level.²⁸

In the case of the *Chantiers*, tool shortages and the location of their designated felling sites, which were often remote and inaccessible, hampered efficiency and

exposed tensions with the forestry administration.²⁹ This friction intensified in August 1941 when the minister for agriculture stipulated that forestry production needed to increase threefold and that the *Chantiers* were to be the main source of this production. Foresters, however, accused the youth movement of privileging moral and social education over forestry work and suggested that some groups ignored their instructions. On the other hand, the *Chantiers'* leadership complained that "the majority of [forestry] conservators ... see [the *Chantiers*] solely as producers of wood charcoal, whereas the aim that we strive towards is above all to make men and national propaganda through the example of a reborn patriotism. It is better, surely, to warm the hearts of French people waiting for a rallying call than to warm their bodies." This dispute highlights the tension between ideological concerns and more practical pressures which plagued Vichy's political program. In the end, however, production imperatives overruled the nationalistic education and the *Chantiers* leadership agreed that "today, above all else, we must assure the country's survival." *Chantiers* groups were told to spend less time on education and improve their efficiency in the forest.³⁰

However, it seems that the heart of the production crisis lay less with the actual felling of trees than with problems of distribution and transportation. For instance, in the Unoccupied Zone, 335,296 out of 818,557 steres of timber destined for German troops remained in the forests between winter 1940 and 1941.³¹ In addition, other governmental departments and occupation soldiers frequently requisitioned forestry vehicles, making it hard for state and private foresters to transport timber out of the forest and into urban areas. To make matters worse, horses employed in the forests were too undernourished to work long hours.³²

Nonetheless, it seems that French forests were heavily overexploited during the war. For instance, in March 1942 the Touring Club of France informed the minister of agriculture of a "vast enquiry" that they had recently conducted on threatened heritage sites. During this survey an abundant correspondence had revealed numerous concerns provoked by the intensive deforestation that is "in part justified by current circumstances."³³ Similarly, an article in *Le Bois National* debated whether to "praise or deplore [the *Chantiers'*] exuberant activity" as it led to a premature timber exploitation, even in areas of "virgin forest" that were normally left unexploited.³⁴ Postwar figures support the overexploitation thesis. The CCCR estimated that controlled, commercial firewood production rose from pre-war levels of 10 million steres to 18 million steres, but admitted that the actual figure was more likely to be 45 million steres. Forests located near urban centers were more likely to be overexploited; certain ones in the Paris region were exploited over ten years in advance (the national average was two years in advance during the Occupation).³⁵ Although the extent of unregulated felling is difficult to assess accurately, it seems that contemporary observers were horrified by the situation. A 1944 article in *L'Action Forestière et Piscicole* noted how "one remains stupefied that nothing has been done to limit the damages caused by a stupid and ferocious deforestation, to the point where the individual has lost all sense of moderation and children themselves cut, fell, uproot, and destroy anything that comes to hand."³⁶ This is not to suggest that all attempts to regulate

deforestation were abandoned. Indeed, the forestry administration battled to maintain and manage a “rationally” planned forest.

AMÉNAGEMENT IN WARTIME

IN 1940, THE FORESTRY administration declared itself ready to serve France; “the forestry corps, severely depleted (*durement touché*), is not defeated. *Au contraire*, it must play an important role in the reconstruction of the country.”³⁷ For the foresters, this implied the continuation of its forestry management principles. Since at least Colbert’s 1669 forestry ordinance, the forestry administration had pursued a policy of *aménagement*, which Tamara Whitehead describes as a policy of “organising a forest for a specific purpose,” such as timber production or preventing landslides. *Aménagement* was based on the forester’s self-declared ability to assess objectively the long-term utility and health of the forest and prescribe the necessary measures to ensure its development (this stands in opposition to traditional peasant practices in the forest, in particular the pasturing of animals and *jardinage*, a system under which mature trees were cut throughout the forest rather than in parcels designated by the forestry administration).³⁸ Although by the 1930s some foresters recognized the advantages of *jardinage*, the forestry administration continued to privilege “ordered” and “rational” forest exploitation and management.

Despite some concerns that overexploitation compromised the future of some forests, between 1940 and 1944, foresters adapted *aménagement* to meet the increased demands that economic conditions placed on the forest.³⁹ For instance, guidelines were sent to conservators at various points instructing them to “subordinate the application of *aménagement* to the current necessities of production.” And on a local level, it seems that foresters were well aware of the need for productive forests, opening up forest camps and involving themselves directly in forestry production. The administration was ready, in the words of the forestry conservator in Grenoble “to make, when needed, necessary sacrifices in the general interest.”⁴⁰ *Aménagement*, then, proved itself flexible in wartime.

At times, this placed the administration in conflict with those who wanted more to be done to ensure the preservation of France’s forests. For instance, the forestry administration’s leadership opposed calls in 1942 to create a five-hundred-hectare nature reserve in Tronçais forest. Foresters argued that the existence of a forest entirely free from human intervention was “essentially theoretical” and in economic terms Tronçais is “one of the jewels of the French forest economy.” They prioritized economic demands, urging that the forest needed to be “used and adapted to satisfy our needs with regard to current contingences.”⁴¹ The Tronçais proposal ultimately was rejected, suggesting that, in this case at least, forestry production was considered more important than forest conservation.

However, more *dirigiste* elements within the government attacked the effectiveness of the forestry administration and *aménagement*. In March 1942, Formery produced a report doubting its competence, arguing that the depleted administration was overwhelmed by events and unable to exert its authority over private foresters. Most damagingly, its inefficiency was holding back production.

He went so far as to suggest that “perhaps [France] needs a wood dictator.” Formery explicitly attacked *aménagement*; forestry “conservators mustn’t be so miserly, and they must forget the peacetime principles of ‘*aménagement*.’ It is no longer the time to fear the destruction of the [forest].” Given workforce and transportation problems, Formery argued that it was time to forget felling in remote places, even if prescribed by forest management principles. Instead, foresters “must—even against the wishes of the owner—exploit to the maximum, down to the ground, all that is close to roads, sawmills, and railway stations.”⁴²

In contrast, traditionalists in the government lauded the forestry administration’s forest stewardship. Pierre Caziot, minister for agriculture, argued that “the forestry administration is without doubt the sole administration that is superior to private owners for the management of our heritage. Only it can conceive long plans and steadfastly maintain them over the centuries.”⁴³ Caziot’s comments are unsurprising as they were made at a time of increased state control over private forests and the forestry administration lay within the Ministry of Agriculture. They also expose the tensions between traditionalists and technocrats that lay at the heart of the Vichy regime.⁴⁴

Vichy aimed to turn the forest into to an increasingly regulated and exploited space to maximize forestry production. As such, its vision of the forest seems to correspond with James Scott’s argument that states reduce forests to sources of revenue and resources. According to Scott, the state’s vision of the forest excludes its social uses and meanings (as a space for hunting, pasturing, worship, and refuge) treating it solely as “an economic resource to be managed efficiently and profitably.”⁴⁵ While Scott’s analysis is relevant to Vichy, it is also reductive, as traditional elements within the regime located meanings in the forest that went beyond production concerns. For Vichy, the forest was both an ideological and productive space.

VICHY’S POLITICAL APPROPRIATION OF THE FOREST

THE VICHY REGIME incorporated the forest into its “back to the land” ethos, making it a traditional, stable place to be mobilized as part of its plans to regenerate France morally. For instance, Jacques Chevalier, conservative philosopher and minister for public instruction between December 1940 and February 1941, considered that “life in the forest is the most healthy there is for the body and the soul, freeing us from the artifices of modern society.” Chevalier suggested that “eternal” France resides in the forest. The forest, therefore, constituted, “a living symbol of tradition, perpetuating history; old France is preserved better here than anywhere else; the present unites effortlessly with the past. In the silence and depth of the forest centuries replace one another, slowly, continuously, in the same way that the oak’s sapwood binds a new layer to those of springs and autumns past.” For Chevalier, the tree represented a link between France’s past and present and acted as a guarantor of French traditions.⁴⁶

In keeping with Vichy’s ruralism, forestry associations strove to incorporate the forest within the “National Revolution.” Just after the defeat, J. Jagerschmidt,

the general secretary of the *Comité des forêts* argued that the “forest has been the refuge of these old principles” of “Travail, Famille, Patrie.” For Jagerschmidt: “the forest, symbol of tradition ... of which the evolutionary rhythm exceeds several times the length of human life, chimes perfectly well with the notion of the family [and] the linking of successive generations.” And it was in the depths of the forest that the country’s “heart” belonged.⁴⁷ It is unclear whether such rhetoric represented deeply held beliefs or lip service to the newly installed regime. Either way, the forest’s politicization is evident.

In Vichy France, the *bûcheron* was constructed as a patriotic figure laboring to regenerate the nation. Two foresters, Roger Blais and Gérard Luzu, published a guide to the “tough school” of the forest, which presented forestry work as the most “radical” return to the land and “an integral part of rural reconstruction.” Blais and Luzu highlighted the “physical and moral enrichment” the forester gleaned from the forest, “contributing to the affirmation of values and personal autonomy within the framework of nature’s laws and collective life.” In contrast to the comforts offered by the city and the forty-hour work week, life in the forest was “hard and healthy” and woodcutting a “noble and free occupation.” Blais and Luzu also called for the forestry profession to conform to the principles of “social spirit and true hierarchy as outlined by the head of state.” Their vision of forest life fitted with the National Revolution’s assertion that hard work was redemptive and served a national purpose.⁴⁸

Likewise, the *Chantiers*’ forestry work contained an ideological dimension as it was supposed to ensure young men’s moral and physical regeneration. The *Chantiers* leadership viewed the forest as a safe and wholesome place, distant from the supposed immorality and decadence of modern society. From the outset, it strove to remove its recruits from the “deleterious influence of the towns” by making them camp out “in the great outdoors (*en pleine nature*), in the middle of the forest, hidden from all forms of trouble or agitation.”⁴⁹ The forest supposedly held important lessons for these young men, as it did for the rest of society. At Tronçais, Group One of the *Chantiers* dedicated a tree to their leader, Commissaire Furioux. In his speech during the ceremony, Forestry Inspector Desjeux pronounced that “it is through the living example of the forest, an example of tradition, continuity, and grandeur that [Furioux] wanted to impress on all those who had the honour of obeying [his] orders.” In a similar vein, Conservator Pascaud used his speech to identify the forest’s exemplary demonstration of “solidarity.” The oak tree towering serenely above surrounding trees protects them so that they grow to share the “light in which he bathes.”⁵⁰ Addressing the *Chantiers*, Pascaud continued: “This solidarity of all plants, is it not the image of the best of societies where the leader must dominate in his pre-eminence while feeling himself surrounded, supported, [and] aided [by his followers]. If his entourage fails him, he succumbs, whatever his qualities. Let us remember this example at a moment when divisions lie in wait for us.”⁵¹ There was, however, some discrepancy between the regime’s rhetoric and the reality of forest life. *Chantiers* leaders were well aware of their recruits’ indifference, even outright hostility, to their new role as woodcutters. A 1943 summary recognized that the early

“competition for output” and the *Chantiers*’ “mentality of explorers out to discover new lands” had dissipated. Instead, the men no longer recognized the “usefulness of their work” and the leadership itself admitted that “forestry work, interesting at first, quickly becomes monotonous, [and] tedious. Their hearts are not in the felling. Boredom is the dominant characteristic.”⁵² The joys, it seems, of being a woodcutter were lost on those forced to work in the forests.

Nonetheless, the image of the tall oak leading and protecting his followers was a popular one. Yvonne Estienne’s illustrated story, *La belle histoire d’un chêne* (1943), compared France to a forest that had just been struck by a fierce storm. During the storm, trees swayed alarmingly in the wind and petrified birds and animals rushed to find shelter; “all the forest is unhappy. It looks for help.” Help came from the forest’s leader, a “tall, solid, upright tree” who feared nothing and protected its charges. In case her young readers had missed the analogy, Estienne moved the story onto contemporary events, noting how during the war and defeat the French had fled the enemy and its bombs “like the rabbits of the wood.” But luckily for France there was hope: “there existed, as well, in the forest of France—because men resemble trees—a tall, beautiful oak, already old but so valiant that he stood strong to protect everybody. And this tall, beautiful oak was called Marshal Pétain.” Helpfully, the Pétain oak tree carefully explained where the forest had gone wrong and how it should reform itself.⁵³

This ideological appropriation of the forest perhaps reached its high point in Tronçais, where an oak tree was named after Pétain on the initiative of Chevalier. Like the supposedly exceptional qualities of Pétain, the oak tree chosen to bear his name stood out from the rest. During the naming ceremony, Pétain unveiled a plaque bearing the words “Chêne Maréchal Pétain” and made three marks on the tree with a forestry administration hammer. On one level, this event can be interpreted within the framework of the cult of personality created around Pétain, who admitted that he hoped that he would be able to “remain as upright as this tree in order to be able to devote [himself] to the service of the country.” The ceremony also implied that Pétain, like his oak tree, embodied the latest in a vulnerable line of strong, upright men devoted to France. As Chevalier noted during the ceremony, “who could doubt a country which produces such trees and such men?”⁵⁴ But beyond the construction of Pétain’s cult of personality, it is not too fanciful to see this marking of the tree as a performative device to reinforce the importance of the forest and the state’s claim to govern it. The ceremony also served as a reminder of the forest’s historical role as “savior” of France. During the ceremony, Chevalier reminded his audience that this ancient forest provided wood for the navy in 1793 and timber for the army in 1917.⁵⁵

Furthermore, the ceremony suggested that Tronçais, which the state had replanted in the late seventeenth century, was physical evidence that France could rebuild itself under Vichy’s guidance. Caziot called for a contemporary display of determination equal to that of foresters who had replanted Tronçais: “The state of the Tronçais forest in 1670, was it not the image of France today, of the ravaged France, morally demolished by more than half a century of hideous demagoguery? The war then added its own disasters. Today, everything must be remade, morally

and materially. It is a fearsome task and one which demands long and patient effort as the rot runs deep. But the base has remained healthy and solid and allows for hope ... On this solid base, which is the foundation of France, we can, in the image of Tronçais, remake a vigorous and healthy France. The oak which bears [Pétain's] name must be a lesson and a symbol for everyone."⁵⁶ In this speech, Caziot compared the Third Republic with the damaged pre-1670 forest and suggested that all was not lost because the forest's essential nature (like France's) had remained intact. There

Figure 2. Pétain and His Oak, Tronçais Forest.



Keystone photograph, scanned from Jean-Pierre Azema, *From Munich to the Liberation, 1938-1944* (NY: Cambridge University Press, 1984).

is also a sense that the forest's and France's "true" essence lay beneath the surface of democracy and modernity, waiting to be recovered and restored.

Such an assumption corresponds with Herman Lebovics's analysis of the right-wing construction of "True France," a "discourse [that] employs the essentialist determinist language of a lost hidden authenticity that, once uncovered, yields a single, immutable national identity."⁵⁷ Yet the forest's political symbolism need not be reactionary. Vichy's appropriation of the oak tree echoed previous state manipulation of this species. Ironically, given Vichy's hostility to the French Republic, in the years following the French Revolution, oaks were moulded into "Liberty Trees," and like Vichy, revolutionary governments elevated the oak to the status of a "beacon tree," controlling (and sheltering) surrounding trees.⁵⁸ Moreover, French resistance units would occupy the forest's physical and symbolic space, transforming it into a site of resistance and reclaiming it from Vichy.

THE RESISTANCE RECLAIMS THE FOREST

AS THE OCCUPATION dragged on, resistance fighters identified the forest as a place to seek refuge and a base from which to oppose the Vichy regime and the

occupier. The wartime economy and Vichy's attempts to boost forestry production ironically aided the resistance as the increased number of forestry camps provided excellent cover.⁵⁹ The resistance therefore had a real physical presence in the forests as camps provided shelter and employment for young men evading compulsory labor in Germany, as well as for foreign refugees, Jews escaping deportation, and other would-be *maquisards*. One important example is the Pélanq forestry camp in the Var. Although tensions existed between the camps' leaders and the forestry administration (which oversaw the enterprise), one forestry inspector deemed Pélanq an "exceptional success *as much from the human as the forestry point of view.*" For although the *pélanquois* never fought as a unit, all but one survived the Occupation.⁶⁰

Elsewhere, in the Vercors mountain range, forestry camps and charcoal burning provided cover for those trying to keep a discreet profile. As Philippe Hanus notes, many of these clandestine workers "entered into dissidence" and became active in the resistance.⁶¹ For instance, the Ambel farm forestry camp on the massif's western flank was a large-scale operation where up to 150 men could be employed, many of whom were Polish and Jewish refugees.⁶² Although these new forestry workers lived outside of the law, this did not mean that the rules of the forest were totally disregarded. At the Gêves *maquis* camp in the Vercors, felling was reportedly conducted with the advice of forestry guards who selected which trees to cut to maintain the forest's "balance."⁶³ Resistance activity challenged Vichy's claim to the forest in other ways. At Tronçais in February 1943, a resistor reportedly scaled Pétain's oak and replaced the plaque bearing the marshal's name with the following:

Chêne Gabriel Peri
French Patriot
Shot by the Nazis.⁶⁴

Consequently, Pétain's oak is now officially known as the "Oak of the Resistance."⁶⁵

The examples of Pélanq and the Vercors are suggestive of the ways in which the figure of the *bûcheron* was incorporated into resistance mythology, subverting Vichy's politicization of the woodcutter. There were, however, similarities between the attitudes of resisters and Vichy propaganda toward life in the forest. Both recognized that the life of the *bûcheron* was demanding. According to one of its creators, daily life at Pélanq was extremely difficult. Food and water were in short supply and there were "numerous injuries." Consequently, heroism and fortitude manifested themselves in the camp less in its role as a resistance unit than in the "bloody hands of our inexperienced *bûcherons*." Another of Pélanq's founders was more positive, celebrating the *bûcheron*'s noble character and his "hard but pure" work which was somewhat reminiscent of Vichy rhetoric.⁶⁶

Like Vichy, some resisters recognized the transformative qualities of life in the forest. For instance, Lieutenant Stephen, an experienced woodcutter and resistor at Ambel, believed that the "rude life of the forest" was an effective preparation for fighting the occupier.⁶⁷ Certain resisters also shared the notion with Vichy that working in the forest offered a connection with "authenticity."

For instance, one young *maquisard* at Ambel explained to Stephan why he was so attracted to the life of the *bûcheron*: “One feels better for being in contact with concrete realities. To know exactly what is in front of you; to battle against demanding difficulties, but ones which don’t deceive; to measure each day your victory against a beautiful and noble material; to have the feeling that this adversary [the tree] against which you are going to measure yourself has waited for you for perhaps a century; [and] that nature has nourished it with its sap, rain, wind ... is that not beautiful?”⁶⁸

But although there were similarities between Vichy and the resistance’s symbolic appropriation of the woodcutter, their aims were diametrically opposed. The former was designed to support the regime, the latter to bring it down.

Numerous foresters were present at the naming of the *Chêne Pétain* in November 1940, but as the years passed increasing numbers of foresters turned toward resistance. Although it is difficult to assess the full extent of this resistance activity, there are some clues. The May 1945 edition of *Revue des Eaux et Forêts* lists five foresters (of inspector and inspector-adjoint ranks) killed by the “enemy” between the Armistice and Liberation. Although unconfirmed, presumably the reason for many of these deaths was resistance activity. Subsequent issues of the journal carried obituaries of foresters who “died for France” (*morts pour la France*) while Lieutenant-Colonel Daviron praised the “most precious support” that foresters had offered to the resistance, such as the “concealment of military officers and *réfractaires*, the installation of camps, and the provision of transport and materials.”⁶⁹ On a local level, a 1948 report on resistance and foresters in the Hautes-Alpes *département* suggested that “almost all forestry officials helped resistance organizations,” acting as mountain guides, liaison agents, and camp organizers. In addition, forestry buildings served as

Figure 3. Memorial to the Resistance, Bessillon Mountains.

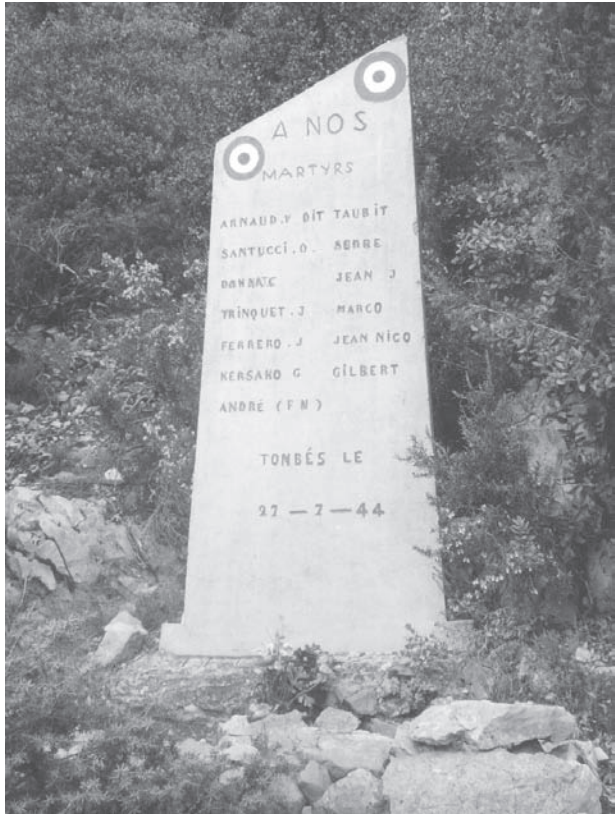


Photo courtesy of the author.

resistance headquarters and bases and at least six foresters in the *département* bore arms against German troops.⁷⁰

The transformation of the forest into a site of resistance was not without precedents. As Robert Pogue Harrison argues, since at least the Middle Ages European forests have sheltered “outcasts” of all kinds.⁷¹ Similarly, Philippe Barrier argues that the history of outlaws and (pre-World War II) resisters indicates that forest is “not only a base for alternative society (*contre-société*), but in times of trouble, a place of real counter power.”⁷² More specifically, Peter Sahlins shows how, in nineteenth-century France, peasants in the Ariège *département* transformed the forest into a place of revolt against the state and business interests. The War of the Demoiselles was another example of how the forest became a “site of revolt and subversion by alien and opposed elements of the structured, hierarchical social order.”⁷³

It is difficult to identify direct causal links between these various histories of resistance, but it is clear that rural resisters added a new chapter to the forest’s subversive character. Moreover, the participation of state foresters in resistance activity is a new development in this history. Previous revolts, such as the War of Desmoiselles, were often *against* the forestry administration, whereas in World War II foresters used their position as agents of the state to subvert the regime and oppose foreign occupation. And, beyond such “classic” resistance activity, state foresters also opposed the actions of Italian and German troops whom they perceived as undermining forest *aménagement*.

OCCUPYING THE FOREST

OCCUPATION ARMIES and foresters held different conceptions of the forest. For the former it was a place to carry out maneuvers and secure firewood, while for the latter the forest was a space to control and regulate. These divergent attitudes clashed repeatedly between 1940 and 1944. For a start, a major obstacle confronting foresters’ ability to manage the forest was the establishment of military exclusion zones, which restricted the movement of forest fire surveillance teams, rendering fire-fighting difficult if not impossible.⁷⁴ Although occupation soldiers sometimes helped put out blazes, they were, in general, an obstruction to forest fire control and the enforcement of other regulations.⁷⁵ Foresters also feared that without their presence in the forest local communities and peasants would commit endless forestry offenses. For instance, the redrawn Franco-Italian border passed through the communal forest of St-Etienne-de-Tinée and a recently replanted state forest. Foresters feared arrest if they inadvertently crossed the line, yet suspected that “certain delinquents” among the local population would not display a “similar prudence.” Instead they would take advantage of the lack of official surveillance to fell trees and pasture their animals illegally in the forest, thereby compromising recent reforestation plantations and setting off landslides.⁷⁶

In the eyes of foresters, occupation soldiers, like peasants, were undisciplined forest users. Military felling dictated by short-term concerns conflicted with the long-term-view of *aménagement*, and the forestry administration tried to bring

military felling under some kind of control. Yet foresters had limited means at their disposal. One inspector recognized that the forestry administration couldn't prevent troops from making unexpected cuts, but at the very least foresters should "ensure that these exploitations were done in the least damaging way to the forest and that the timber taken was inventoried as precisely as possible."⁷⁷

However, army units could be deliberately obstinate, withholding their identities from foresters who challenged their unauthorized felling, making it extremely difficult, if not impossible, for the felling to be regularized and paid for.⁷⁸ Moreover, a lone forester was physically no match for an army unit. One forestry inspector, obviously shaken after an encounter with a German patrol and its dogs, feared a future "accident or incident" and refused thereafter to patrol that particular forest.⁷⁹ Some of the only available options, it seems, were complaining to military commanders and writing reports. In the Alpes-Maritimes, foresters filed numerous reports on the Italian soldiers' illegal felling. For instance, a report filed in November 1943 complained that the Italian troops cut wood "without any control." This became a recurrent complaint; the inspector in Draguignan described such felling as "absolutely arbitrary and irregular." Although at times troops cut wood "according to the rules of silviculture," it seems that the "richness and ease of ... exploitation" was more likely to dictate where and when timber was extracted from the forest.⁸⁰ Furthermore, local communities were deeply concerned about occupation armies' forays into the forest. In July 1943, the municipal council of St. Sauveur feared that Italian soldiers planned to clear-cut forests in their commune, which they argued threatened the village's economic future and its "forest character" (*ambiance forestière*).⁸¹

Soldiers also proved themselves extremely inconsiderate. On one occasion in the Breil-sur-Roya communal forest, Italian troops were so careless when transporting timber out of the forest that they damaged young plantations on the edge of the forestry road.⁸² Such carelessness could have serious repercussions. Not infrequently, blazes broke out during troop maneuvers and military exercises; forest fires were often blamed on the "imprudence of passing Italian troops."⁸³

Perhaps most galling, Occupation troops undermined foresters' previous reforestation work. Italian troops stationed on Mont Boron in Nice caused damage through unauthorized felling and allowing their mules to roam freely throughout the forest. Foresters were understandably aggrieved by the situation as they had painstakingly replanted Mont Boron from 1860 onwards, turning it into "a fine success story of Aleppo Pine reforestation on very dry terrain." The Italian troops had therefore destroyed years of investment and hard work. Forestry officials realized that they couldn't question the actual presence of troops on Mont Boron but they did request that soldiers consult them before modifying the forest, in an effort to conciliate "military aims with the interest of the forest."⁸⁴

As well as acting as a source of natural resources, the forest was also a strategic site for Occupation troops. In terms of forest conservation this could cut both ways. On the one hand, forests provided camouflage and soldiers demanded their conservation, for example along strategic routes. On the other hand, military imperatives sometimes dictated the removal of trees. On at least one occasion

Italian troops reportedly felled trees to make “obstacles intended to prevent enemy planes [from] landing.”⁸⁵ More seriously, in Trets in the Bouches-du-Rhône, a forest fire raged across eight hundred hectares in August 1943. At first, officials thought that German forces started the fire to disperse a *maquis* unit that had assembled in the area. A 1947 report, however, dismissed this theory, suggesting instead that the fire was started to create sightlines for German soldiers surveying strategic routes in the area. The reconstruction cost of this military modification came to 12 million francs.⁸⁶

As we have seen, Occupation troops presented a sustained challenge to the forestry administration’s control over France’s forests. Having already been forced to adapt their principle of *aménagement* to meet spiraling demands for forestry products, foresters saw their sovereignty slip away as occupation armies tightened their grip on French territory and resources. As the Occupation progressed, regulating the forests became more and more of a frantic exercise in damage limitation. Huge quantities of wood bypassed the forestry administration, ending up on the black market or in the hands of Occupation armies. Both Italian and German armies illegally requisitioned wood through their own felling or buying timber directly from French merchants. As one forestry conservator admitted in 1941, “in reality the quantities of wood requisitioned by the Germans are much greater [than state records indicate] because direct buying from private exploiters is frequent.” German military commanders issued a command on August 12, 1943, in an attempt to regularize the situation but this appears to have had little effect.⁸⁷

Indeed, the quantity of wood purloined by the German army was enormous, and their demands for French timber continued even after the D-Day Landings in June 1944.⁸⁸ Overall, Germany misappropriated over 26 million cubic meters of construction- and industry-grade timber worth over 8 billion francs (of 1938 value).⁸⁹ These enormous requisitions deprived French society of badly needed wood, as well as greatly contributing to the overexploitation of France’s forests between 1940 and 1944. These figures show that, as in other areas, Vichy’s policy of collaboration with Germany secured few advantages for France, especially as the war progressed.

FIGHTING IN THE FOREST

AS WELL AS BEING a productive and political space, the forest became an arena for military combat. Since at least 1941, local authorities in Provence had recognized the dangers posed to forests and agriculture by Allied bombing raids. In periods of dryness there was a “grave danger” of fire in areas of forests and agricultural land, and the Vichy government shared these concerns.⁹⁰ In 1942, the head of the gendarmerie in the Bouches-du-Rhône even suggested that foreign and anti-government elements were behind the upsurge in forest fires: “It is inadvisable to reject *a priori* the hypothesis of concerted action, executed to order, with the aim of creating difficulties for the [Vichy] regime. No information supports these presumptions, but can we really believe in the complete passivity of French extremists, Polish or Spanish miners from the Gardonne or Gréasque coalmines [or] former militants, too compromised to try to obtain an armistice

from the government, who are no doubt familiar with the sabotage attempts recently committed in the mine shafts? Aren't forest fires easier to start, and with less risk?"⁹¹ In fact, such logic was counterintuitive, for once resistance groups began to seek shelter in forests it made no sense for them to deliberately destroy the vegetation that provided their cover. Rather, German forces used fire to flush out the *maquis*. On the Canjuers plateau in August 1944, German soldiers armed with shells and flame-throwers ignited the plateau's vegetation to drive out resistance units. A former *maquisard* bore witness to the ensuring inferno; "I have never seen such a fire. It was like hell. I'm certain that no insect could have survived on Canjuers. Then it was the turn of assault troops who "cleaned" each camp with flame-throwers. From where we were it was a spectacle that was at once fascinating and tragic. Every one of us imagined how we would have met our end in this deluge of flames."⁹²

In general, regular army units had the potential to cause more damage to the forest environment than the resistance. For instance, Allied plans to invade the Provençal coast in August 1944 placed forests directly in the line of fire. During the planning stages of the landings, Allied strategists studied the forests that clung to the Mediterranean coast. According to the Inter-Service Topographical Department, forests could provide useful cover, although, in general, they represented an obstacle to rapid troop movement.⁹³ Furthermore, Allied planners took very seriously the threat posed by forest fires. According to Admiral André-Georges Lemonier, former chief of French naval forces, plans were afoot to ignite Provence's forests before the landings in order to avert the possibility of forest fires that could restrict troop movement. Lemonier was horrified at the very idea, finding it "hard to subscribe in advance to the systematic destruction of our beautiful Provençal forests." Luckily for Lemonier (and the forests) Allied command renounced this idea and there was a heavy downpour before the landings, reducing the chance of fire.⁹⁴ But Provence's forests did not emerge unscathed from the landings. Allied aerial and naval bombardments damaged trees and started fires; a forestry report on Port-Cros island lamented the "ravages" of war after bombardments against fortifications ignited surrounding trees. German troops also used forest fires as a defensive tactic. In Gémenos in the Bouches-du-Rhône, retreating German soldiers set fire to the communal forest, which was apparently "one of the most beautiful [forests] in the *département*." In all, at least 2,769 hectares of Provençal forests were partially or completely damaged during the Allied invasion, according to forestry reports.⁹⁵

CONCLUSION

DURING THE COMBAT of 1944 forests became both sites and victims of military conflict. This fighting in the forest overrode its productive and ideological functions and was wholly incompatible with foresters' *aménagement* principles. This illustrates how, throughout the "dark years," different factions within France struggled to maintain control of the forest, but were ultimately thwarted by the dominance of Occupation armies. The wartime history of France's forests, then, is extremely plural. The forest was simultaneously a productive space, an

ideological space, a site of combat, and, not least, an ecological space. These conflicting uses and visions of the forests challenged each other between 1940 and 1944 and tensions existed between the forest's productivity and its sustainability, foresters' management principles and the immediate needs of occupying forces, as well as between Vichy and the resistance. The forest, therefore, was not the safe, depoliticized space constructed by Vichy.

The ultimate outcome of these struggles for resources and power was the ecological degradation of the forest. The forestry administration estimated that 30 million cubic meters of undressed timber destined for construction and industry had been damaged by "acts of war," spreading across 400,000 hectares. Furthermore, foresters estimated that bombardments, clear-cutting, and munitions explosions had destroyed or rendered unusable approximately 3,500,000 steres of firewood.⁹⁶ While four years of conflict during World War I had destroyed approximately 200,000 hectares of woodland in North and Eastern France, the greater surface area of war damage caused between 1940 and 1944 had a much wider distribution, with forests in the Landes region in southwestern France among the worst affected.⁹⁷ Even in the southeast there was a marked difference in war damages; forests in the coastal *départements* experienced higher levels of destruction than those of the interior.⁹⁸

This war-related damage greatly concerned foresters and the government of the newly restored Republic, which approved legislation to promote reforestation. In September 1946, the *Fonds Forestier National* (FFN) was passed into law, prescribing the reforestation of 2 million hectares over twenty to thirty years. Although the FFN addressed long-standing issues of forest degradation, its introduction was arguably the direct result of the war, which had not only caused extensive war damage but exposed the weaknesses in France's forestry production. As in Vichy France, reforestation under the FFN was linked to national renewal. However, the postwar scheme was far more successful, and by 1955 foresters were celebrating the reforestation of the first 500,000 hectares.⁹⁹

The introduction of the FFN illustrates how war changed forest ecology, as well as perceptions of, and policies toward, France's woodlands. For although World War II was only the latest chapter in the long history of human modification of French woodland, the years between 1940 and 1944—a blink of an eye in the life of a forest—brought huge economic, political, cultural, and ecological changes in France's forests. Accordingly, this history asks us to reconsider war's role in shaping the landscape and the relationship between human and nonhuman nature during times of social and military conflict.

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NOTES

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1. Jean Giono, *The Man Who Planted Trees* (London: Harvill Press, 1995). The story originally appeared in the 1950s and since has been published in New Zealand, Kenya, Finland, and the United States, among other countries. Giono's own wartime history is somewhat murky, and after the war he appeared on a "black list" of writers who had collaborated. See Julian Jackson, *France: The Dark Years, 1940-1944* (Oxford: Oxford University Press, 2001), 87, 92, 201, 208, 591.
2. René Diderjean, "Il faut reboiser," *Le Bois*, January 25, 1942, 1.
3. For instance, Tamara L. Whited's *Forests and Peasant Politics in Modern France* (New Haven and London: Yale University Press, 2000), stops in the 1930s and Michael Bess's account of French environmentalism largely restricts itself to the postwar period: *The Light-Green Society: Ecology and Technological Modernity in France, 1960-2000* (Chicago and London: University of Chicago Press, 2003). Other environmental histories of France tend to overlook the influence of war in shaping the French landscape. See, for example, A. Cadoret, ed., *Protection de la nature: histoire et ideologie, de la nature à l'environnement* (Paris: L'Harmattan, 1985); and René Guilbot Neboit and Lucette Davy, eds., *Les français dans leur environnement* (Paris: Éditions Nathan, 1996). Andrée Corvol and Jean-Paul Amat's edited volume *Forêt et guerre* (Paris: L'Harmattan, 1994) focuses overwhelmingly on World War I. The one article on World War II limits itself to a single case study and is written from the reductive perspective of "forest improvement"; see Frédéric Fesquet, "Les reboisements de protection dans la guerre: le massif de l'Aigoual," 155-61. For more on the ecological impact of World War I on France's forests, see Jean-Paul Amat, "Guerre et milieux naturels: les forêts meurtries de l'est de la France, 70 ans après Verdun," *L'Espace Géographique* 3 (1987): 217-33; and Hugh Clout, *After the Ruins: Restoring the Countryside of Northern France after the Great War* (Exeter: University of Exeter Press, 1996).
4. For instance, the environment does not feature in *France: The Dark Years*, Jackson's otherwise extensive overview of the vast range of the secondary literature that exists on Vichy France and the Occupation. The closest this historiography approaches environmental history is through considerations of Vichy's "back to the land" philosophy, wartime rural history, and the geographical context of rural resistance units. On the "back to the land" ideology, see Jackie Clarke, "Homecomings: Paulette Bernège, Scientific Management and the Return to the Land in Vichy," in *Vichy, Resistance, Liberation: New Perspectives on Wartime France*, ed. Hanna Diamond and Simon Kitson (Oxford: Berg, 2005), 171-82; and Christian Faure, *Le projet culturel de Vichy* (Lyon: Presses universitaires de Lyon, 1989). On rural France, see Isabel Boussard, *Vichy et la corporation paysanne* (Paris: Presses de la Fondation nationale des sciences politiques, 1980); Michel Gervais, Marcel Jollivet, and Yves Tavernier, *Histoire de la France rurale. Tome 4: la fin de la France paysanne de 1914 à nos jours* (Paris: Seuil, 1976); and Don Kladrup and Petie Kladrup, *Wine and War: The French, the Nazis, and France's Greatest Treasure* (London: Hodder & Stoughton, 2001). On the resistance, see Jean-Marie Guillon and Pierre Laborie, eds., *Mémoire et histoire: la*

- Résistance* (Paris: Éditions Privat, 1995); H. R. Kedward, *In Search of the Maquis: Rural Resistance in Southern France 1942-1944* (Oxford: Oxford University Press, 1993); François Marcot, ed., *La Résistance et les Français: lutte armée et maquis* (Paris: Annales littéraires de l'Université de Franche-Comté, 1996); and Jacqueline Sainclivier and Christian Bougeard, eds., *La Résistance et les Français: Enjeux stratégiques et environnement social* (Rennes: Presses universitaires de Rennes, 1995).
5. On environmental histories of war, see Lisa M. Brady, "The Wilderness of War: Nature and Strategy in the American Civil War," *Environmental History* 10 (July 2005): 421-47; Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War 1 to Silent Spring* (New York: Cambridge University Press, 2001); and Edmund Russell and Richard P. Tucker, eds., *Natural Enemy, Natural Ally: Toward an Environmental History of Warfare* (Corvallis: Oregon State University Press, 2004). On environmental histories of war dealing specifically with forests, see John R. McNeill, "Woods and Warfare in World History," *Environmental History* 9 (July 2004): 388-410; Richard P. Tucker, "The World Wars and the Globalization of Timber Cutting," in *Natural Enemy, Natural Ally*, ed. Russell and Tucker, 110-41; and Joshua West, "Forests and National Security: British and American Forest Policy in the Wake of World War I," *Environmental History* 8 (2003): 270-94.
 6. The administrative *départements* under study are the Alpes-Maritimes, Basses-Alpes (now the Alpes-de-Hautes-Provence), Bouches-du-Rhône, Drôme, Hautes-Alpes, Isère, Var, and Vaucluse. Following the defeat of France, these *départements* lay in the Unoccupied Zone. Between June 1940 and November 1942 Italy annexed the frontier area of the Alpes-Maritimes, before taking control of the whole of the region in November 1942. The expanded Italian Zone lasted until the collapse of Italy in 1943 when it was subsequently occupied by the German army. For the social and political history of this region during the war see Jean-Marie Guillon, "La France du Sud-Est," in *La France des années noires. Tome 2: de l'occupation à la Libération*, ed. Jean-Pierre Azéma and François Bédarida (Paris: Seuil, 1993), 159-76.
 7. In 1940 Pierre Caziot, Vichy minister for agriculture, renamed Eaux et Forêts as the *Direction des Forêts, de la chasse et de la pêche* (it reverted back to its previous name in 1943). For simplicity's sake I refer to *Eaux et Forêts* as the forestry administration throughout this article.
 8. Charles Colomb, "Preface," in Roger Blais and Gérard Luzu, *Les métiers de la forêt* (Paris: Presses Universitaires de France, 1941), 3-4; and Archives départementales de la Drôme (hereafter ADD) 61 W 6, M. Pucheu, Pierre Caziot, and M. Lehideux, to regional and departmental prefects, "Répartition des bois," January 10, 1942. For more on general material shortages, see H. R. Kedward, *Resistance in Vichy France: A Study of Ideas and Motivation in the Southern Zone, 1940-1942* (Oxford: Oxford University Press, 1978), 18; Alan S. Milward, *The New Order and the French Economy* (Aldershot: Gregg Revivals, 1984), 34; and Dominique Veillon and Jean-Marie Flonneau, eds., "Le temps des restrictions en France (1939-1949)," *Cahiers de l'Institut d'Histoire du Temps Présent*, 32-33 (May 1996).
 9. A. Lepoivre and G. Septembre, *La gaz des forêts: carburants forestiers gazogènes* (Paris: Société nationale d'encouragement à l'utilisation des carburants forestiers, 1938), 11.
 10. "Actes officiels," *Revue des Eaux et Forêts* 79 (September 1941): 689. On promotional activities in favor of *gazogène*, see Archives départementales des Bouches-du-Rhône (hereafter ADBDR) 194 W 29, André Huart, president of the Automobile-Club of Marseille and Provence, to forestry conservator, Aix-en-Provence, April 2, 1941; and Dominique Veillon, *Vivre et Survivre en France 1939-1947* (Paris: Éditions Payot & Rivages, 1995), 194. For a fuller explanation of the *gazogène* system, see Veillon, *Vivre et Survivre en France*, 194. Pétain himself published a 1936 leaflet in favor of *gazogène* in which he argued that "the industrial production of the gas of the forests could

- contribute to the revival of the French economy [and] could immediately provide precious support for national defence." Quoted in *Les Eaux et Forêts du 12e au 20e siècle* (Paris: CNRS, 1987), 629.
11. Interview by author with Elvio Segatto, Pizançon, August 3, 2005, notes and tapes in author's possession.
 12. Centre des Archives contemporaines of the Archives Nationales (hereafter CAC) 19800470/168, M. Formery, inspector general of finances to vice-admiral general commissioner of power, "Quelques observations sur l'approvisionnement en bois," March 24, 1942, 1. The figures come from Commission consultative des dommages et des réparations, *Dommages subis par la France et l'Union française du fait de la guerre et de l'occupation ennemie (1939-1945)* (Paris: Imprimerie Nationale, 1951), 10 vols., vol. 6, Monograph M.P. 18, "Prélèvements allemands de matières premières: bois et produits forestiers" (Imprimerie nationale, 1947), 29.
 13. "La revanche de la forêt," *L'Action forestière et Piscicole* 43 (October 1940): 1.
 14. Charles de Lassuchette, "L'organisation forestière au sein de la corporation nationale est réalisé," *L'Action Forestière et Piscicole* 72 (March 1943): 1.
 15. J. Jagerschmidt, "Le programme forestier de la France qui va renaître," *L'Action Forestière et Piscicole* 39-40 (July 1940): 2.
 16. Henri Rieuf, "Organisation forestière: mobilisation des ressources forestières," *Le Bois National*, December 15, 1941, 393-96.
 17. Minister for agriculture, *Agriculteurs, voici ce qu'en un an le gouvernement du Maréchal a fait pour vous* (Éditions de Secrétariat Général à l'Information et à la propagande: [n.d.]), 6; *Eaux et Forêts du 12e au 20e siècle*, 628-30; "Loi fixant la possibilité à exploiter chaque année par tous les propriétaires," in "Actes officiels," *Revue des Eaux et Forêts* 78 (July-September 1940): 334; and "Décret relatif à la production forestière en temps de guerre," *L'Action Forestière et Piscicole* 35 (February 1940): 1. GIFs consisted of two forest owners, two timber merchants, and two state foresters and were charged with assessing the state of timber resources and fixing timber prices and distribution. See "Actes officiels," *Revue des Eaux et Forêts*, 336-37.
 18. Jagerschmidt, "Le programme forestier," 2. Since at least the nineteenth century, state foresters had been deeply concerned about deforestation, especially on mountain slopes, which they blamed for flooding on the plains and in the cities. For an in-depth analysis of reforestation policies and their impact under the Third Republic, see Whited, *Forest and Peasant Politics*.
 19. "Séance du samedi 28 mars 1942: conférence de M. l'Inspecteur des Eaux et Forêts Dugelay sur le retour à la terre et le problème sylvo-pastoral dans les Alpes-Maritimes," in *Annales de la Société des Lettres, Sciences, & Arts des Alpes-Maritimes*, tome 36, 1942-1943, 17-18. For more on Vichy's "retour à la terre" philosophy, see Clarke, "Homecomings"; Faure, *Projet culturel*; and Robert O. Paxton, *Vichy France: Old Guard and New Order, 1940-44* (London: Barrie and Jenkins, 1972), 200-209.
 20. L. Padré, "Preface," in Société française des amis des arbres, *Guide du reboiseur* (Paris: Pierre André, 1941), 1. See also Association nationale de bois, *Le Reboisement par les Particuliers, Quatrième Partie, Région des Alpes* (1941).
 21. Raoul Blanchard, "Deboisement et reboisement dans les Préalpes françaises du Sud," *Revue de la Géographie Alpine* 32 (1944): 372. Indeed, it seems that the January 1942 reforestation legislation was applied in an extremely limited fashion. See *Eaux et forêts du 12e au 20e siècle*, 642. The law of January 21, 1942, had elevated reforestation to "a work of general interest" and made it obligatory in zones determined by ministerial decree. *Eaux et Forêts du 12e au 20e siècle*, 631.
 22. Archives départementales du Var (hereafter ADV) 1790 W 122, Charles Colomb, director general of forestry administration to forestry conservator, Aix-en-Provence, "Objet: travaux d'améliorations pastorales et forestières," October 5, 1940, 1.

23. In 1942 alone the *Chantiers* cut 440,400 tons of wood and produced 13,000 tons of wood charcoal. Centre historique des Archives nationales, Paris (hereafter CHAN) AJ39 1 "Bulletin du presse du secrétariat général de la jeunesse," 4 March 1941; CHAN AJ39 166 General de la Porte du Theil to prefect of the Haute-Loire, 21 November 1941; CHAN AJ39 168 Mourey, for General de la Porte du Theil, "Note pour les Commissaires Régionaux concernant l'emploi de la main d'oeuvre," May 4, 1943. For more on the *Chantiers* de la Jeunesse and Vichy's youth policies, see W. D. Halls, *The Youth of Vichy France* (Oxford: Clarendon Press, 1981).
24. As Jean-Pierre Azéma notes with reference to the "National Revolution," "seldom can there have been greater discrepancy between intentions and results"; see *From Munich to the Liberation 1938-1944* (Cambridge: Cambridge University Press, 1979), 62.
25. The pre-war production possibility was 10,000,000 m³ and the wartime average 10,617,333 m³ (based on the years 1941-1943 and excluding Eastern and Northern departments). Commission consultative, *Dommages subis par la France et l'Union française*, vols. 6, 5, 11.
26. Formery, "Quelques observations," 1. On the situation in Grenoble, see Archives départementales de l'Isère (hereafter ADI) 2101 W 28 "Procès-verbal de la réunion du 8 janvier 1942." See also CHAN AJ 39 54, "Prescriptions et Directives du Commissaire Général," *Bulletin périodique officiel des Chantiers de la Jeunesse*, No. 54, August 18, 1941, 1-5.
27. Formery, "Quelques observations," 4.
28. CAC 19800470/168 Charles Colomb, "Note sur les réformes nécessaires au développement de la production forestière," March 21, 1942, 1; R. Berthon, "Le problème de la main d'oeuvre forestière," *Revue des Eaux et Forêts* 83 (April 1945): 219; Formery, "Quelques observations," 1; ADBDR 194 W 25 G. Perdrizet, secretary general of GIF Central Committee, and Charles Colomb, forestry director general and president of GIF Central Committee, "Lettre Circulaire No. 144, Objet: contrôle des nouvelles délivrances de cartes professionnelles-Révision des cartes antérieurement attribuées" to regional forestry conservators, presidents of GIF regional committees and presidents of Departmental Services for Forestry Products, April 25, 1944. On the local level, see ADV 1790 W 130 Boutière, Forestry Inspector Draguignan, "Rapport trimestriel sur l'activité de l'Administration, October 11, 1943, 2; and ADBDR 194 W 30, Controller Juré Bartoli, "Rapport de vérification dans la rassort de la 26e conservation des Forêts du 5 au 21 février 1942, département des Bouches-du-Rhône," 8.
29. See "Prescriptions et Directives du Commissaire Général," 1-5; and CHAN AJ 39 56, "Prescriptions et Directives du Commissaire Général," *Bulletin périodique officiel des Chantiers de la Jeunesse*, No. 129, June 1, 1943, 521-24.
30. CHAN AJ 39 166, Mourey, adjacent general commissioner for General de la Porte du Theil, "Note pour Messieurs les Commissaires Régionaux," August 5, 1941, 1-2; Berthon, "De quelques réflexions sur le problème de la main d'oeuvre forestier," 489-93; CHAN AJ 39 168, Colonel Bervété du Génie to Forestry General Inspector Salvat, August 4, 1941; CHAN AJ 39 168, *Chantiers* de la Jeunesse general commissioner to forestry inspector general, August 6, 1941; CHAN AJ 39 54, "Prescriptions et Directives du Commissaire Général," 3. The *Chantiers* had their own grievances and accused *Eaux et Forêts* officials of being "generally too parsimonious" and not "taking into account the important contribution that [our] exploitations provide." CHAN AJ 39 168, *Chantiers* de la Jeunesse Commissariat General, Forestry Service, "Compte-rendu," August 20, 1941.
31. CAC 19771461/41, "Prestations en bois de chauffages effectuées aux troupes d'opération, hiver 1940-1941." A stere equals one cubic metre of timber.
32. See Formery, "Quelques observations," 1; and various reports in ADBDR 194 W 25.
33. CAC 19800400/26 Army General Dosse, delegated administrator for Touring Club de

- France in the free zone to minister for agriculture, March 27, 1942; and M. Arbaud, forestry adjacent inspector, Grenoble, "Coupes abusives? Chablis," April 1, 1942.
34. Paul Durand, "D'une decade à l'autre," *Le Bois National*, 15, no. 8, March 15, 1943, 95.
 35. Commission consultative, *Dommages subis par la France*, vol. 6, 25, 48-49.
 36. Henri Vergnaud, "Une croisade qui s'impose," *L'Action Forestière et Piscicole* 87, June 1944, 1.
 37. "Chronique forestier," 323.
 38. Whited, *Forests and Peasant Politics*, 22-23. See also Robert Pogue Harrison, *Forests: The Shadow of Civilization* (Chicago: University of Chicago Press, 1992), 117; and Peter Sahlins, *Forest Rites: The War of the Demoiselles in Nineteenth-Century France* (Cambridge: Harvard University Press, 1994), 50-53.
 39. For an example of a concerned forester, see A. Dugelay, "Les deboisements et les reboisements dans les Alpes-Maritimes (suite)," *Revue de la Géographie Alpine* 31 (1943): 166.
 40. CAC 19800470/168, forestry conservator, head of Second Bureau, "Note pour Monsieur l'Inspecteur-Adjoint Proust, "réponse à la demande de renseignements du 17 avril 1942, relative au rapport No. 33 du Commissaire du Pouvoir Formery," April 21, 1942; and ADI 2109 W 64, M. Gobert, forestry conservator, Grenoble, to prefect of the Isère, "Rapport: bois de feu," May 19, 1944. For other examples of foresters placing production over conservation concerns, see archives départementales des Alpes-Maritimes (hereafter ADAM) 521 W 9 forestry inspector, Head of Service Toulon to M. Lambert, branch secretary of forestry products, Draguignan, "Objet: Commune de Pardet: Besoins en bois de chauffage," December 29, 1941; and ADAM 521 W 7, M. Caubel, forestry adjacent inspector, Nice Ouest, "Rapport, Commune de Mougins, Réclamation de Monsieur le Maire," November 12, 1940.
 41. CAC 19800400/15, general secretary and president, Société d'Émulation du Bourbonnais, July 7, 1941; CAC 19800400/15, director of National Forestry School to forestry general inspector, "Objet: projet de réserve naturelle en Forêt de Tronçais," April 27, 1942; and CAC 19800400/15, forestry director general to Forestry Inspector General Salvat, "Constitution d'une réserve naturelle dans la forêt domaniale de Tronçais," June 3, 1942.
 42. Formery, "Quelques observations," 1, 4-6.
 43. "Visite de la Forêt domaniale de Tronçais par le chef de l'État," *Revue des Eaux et Forêts* 79 (January 1941), 59.
 44. On these traditionalist-technocratic divisions, see Paxton, *Vichy France*, 259-73; 352-57.
 45. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven and London: Yale University Press, 1998), 11-13.
 46. Jacques Chevalier, *La forêt de Tronçais en Bourbonnais* (Paris: Éditions de la Chronique des Lettres françaises, 1940), 2, 6. Chevalier's musings on trees and tradition are by no means uncharacteristic of the symbolic appropriation of trees. As Douglas Davies suggests, the tree is "a living entity, spanning many human generations. As such it avails itself as a historical marker and social focus of events." Douglas Davies, "The Evocative Symbolism of Trees," in *The Iconography of Landscape: Essays on the Symbolic Representation, Design, and Use of Past Environments*, ed. Denis E. Cosgrove and Stephen Daniels (Cambridge: Cambridge University Press, 1988), 34. See also Stephan Daniels, "The Political Iconography of Woodland in Later Georgian England," in *ibid.*
 47. Jagerschmidt, "Le programme forestier," 1. The "National Revolution" was Vichy's attempt to transform France, replacing the French republic's motto of "Égalité, Liberté, Fraternité" with "Travail, Famille, Patrie" (Work, Family, Fatherland). For more on the

- "National Revolution," see Paxton, *Vichy France*, especially 357-83; Miranda Pollard, *Reign of Virtue: Mobilizing Gender in Vichy France* (Chicago and London: University of Chicago Press, 1998); and Andrew Shennan, *Rethinking France: Plans for Renewal, 1940-1946* (Oxford: Oxford University Press, 1989).
48. Blais et Luzu, *Metiers de la forêt*, 5, 56-58, 61. A 1943 article in *Revue des Eaux et Forêts* also argued that "living in nature is the 'best school' and working in forestry teams countered individualism and selfishness, cultivating instead the qualities of sacrifice and charity." Berthon, "De quelques réflexions sur le problème de la main d'oeuvre forestier," 489-93.
 49. CHAN AJ39 166, "Allocution prononcée devant chacun des Groupements (18e Région) de la Jeunesse Française (du Ie et Iie août)—30 à 35 Groupements—16,000 hommes," [n.d.]; and CHAN AJ39 177 General de la Porte du Theil, *Les Chantiers de la Jeunesse* (Ministre de l'Information [n.d.]), 6.
 50. Chantiers de la Jeunesse, Groupement No. 1, *Inauguration en forêt domaniale de Tronçais du chêne dédié au commissaire Furioux, fondateur de groupement no.1*, November 22, 1943.
 51. *Ibid.*
 52. CHAN AJ 39 56, "Prescriptions et directives du Commissaire Général," *Bulletin périodique officiel des Chantiers de la Jeunesse*, no. 129, June 1, 1943, 529.
 53. Yvonne Estienne, illustrated by M. de Montfalcon, *La belle histoire d'un chêne* (Grenoble: Éditions de la Revue "Les Alpes," 1943).
 54. Chevalier, *La forêt de Tronçais*, 155. Pétain's oak stood thirty-five meters high, boasted a circumference of just under three meters, and was 260 years old with good foliage. Forestry Inspector Dubois de la Sablonnière, "Le maréchal Pétain en Forêt de Tronçais," *Revue des Eaux et Forêts* 79 (February 1941): 126-27.
 55. Chevalier, *La forêt de Tronçais*, 154.
 56. "Visite de la Forêt domaniale de Tronçais par le chef de l'État," 59-60. Georges Merlin, a private forester, also argued that degraded forests were evidence of France's wider decline under the Third Republic. After years of neglect, France's mountains that were once covered in trees now stood "wounded, ravaged, eaten away by water," leaving only "bare rocks" on display. For Merlin, these mountains were "silent witnesses, but how expressive, how accusatory, how damning for a regime! Formal and constantly present proof of its weaknesses and powerlessness." Georges Merlin, "Problème du jour: croisade pour le reboisement," *Le Bois National*, September 5, 1941, 273-74.
 57. Herman Lebovics, *True France: The Wars over Cultural Identity, 1900-1945* (Ithaca and London: Cornell University Press, 1992), 9.
 58. Andrée Corvol, "The Transformation of a Political Symbol: Tree Festivals in France from the Eighteenth to the Twentieth Centuries," *French History* 4 (1990): 463-65.
 59. Kedward, *In Search of the Maquis*, 13-16.
 60. Emphasis in original. Quoted in ADV 1 J240, "Le Pélanq selon Bénédite," November 1983, 23. On the history of the camp, see also ADV 1 J240, "Le Pélanq selon Taillefer," May 1983; and Jean-Marie Guillon, "La Résistance dans le Var: Essai d'histoire politique" (Doctorat d'État, Aix-en-Provence, 1989) part 3, chap. 2, 5-6.
 61. Philippe Hanus, *Je suis né charbonnier dans le Vercors: petite histoire des hommes dans la forêt* (Lans-en-Vercors: CPIE Vercors, 2000), 122-23.
 62. Ironically, a German company took over the exploitation at Ambel in February 1944, so the *maquisards'* timber production fed the German war machine. See *ibid.*, 123-24. See also Lieutenant Stephen, *Vercors: Premier Maquis de France* (Valence: Imprimerie Nouvelle, 1991), 26, 86-87.
 63. Hanus, *Je suis né charbonnier dans le Vercors*, 124.
 64. Roger Chassaingt, *La vie en forêt de Tronçais de juin 1940 à octobre 1944* (Nice:

- published by the author, 1999), 102. Chassaingt dismisses reports that resisters opened fire on Pétain's oak.
65. "La forêt de Tronçais," website of the Office National des Forêts, <http://www.onf.fr/foret/dossier/troncais/3-p1.htm>, consulted November 10, 2005.
 66. One member of the camp apparently wrote to Bénédicte in 1945 admitting that he would "happily exchange [his] current situation to go back to the time when [he] was a *bûcheron*." "Le Pélanq selon Bénédicte," 13-14, 35. For a wider exploration of the ideological links between Vichy and the resistance, see Christopher Flood, "Pétain and de Gaulle: Making the Meanings of Occupation," in *France at War in the Twentieth Century: Propaganda, Myth, and Metaphor*, ed. Valerie Holman and Debra Kelly (New York: Berghahn, 2000), 88-110; and Dominique Veillon, "The Resistance and Vichy" in *France at War: Vichy and the Historians*, ed. S. Fishman, et al. (Oxford: Berg, 2000), 161-77.
 67. Stephan, *Vercors*, 26.
 68. Quoted in *ibid.*, 27.
 69. "Chronique forestier," *Revue des Eaux et Forêts* 83 (May 1945): 294. "Chronique forestier, Nécrologie: Morts pour la France," *Revue des Eaux et Forêts* 83 (July 1945): 419-22.
 70. Archives départementales des Hautes-Alpes (hereafter ADHA) 1042 W 3, M. Cusin, forestry inspector, Gap-Est, "Rapport: documentation pour l'Histoire de la Guerre," June 10, 1948. As the report came from within Eaux et Forêts ranks, it should be treated with caution, although there is collaborative evidence in the Briançon area that foresters supported resistance activity. See ADHA 1042 W 3 [Illegible], adjoint-délégué pour the mayor of Briançon, "Documentation pour l'Histoire de la guerre," June 7, 1948.
 71. Harrison, *Forests: The Shadow of Civilization*, 61.
 72. Philippe Barrier, *Forêt légendaire: contes, légendes, coutumes, anecdotes sur les forêts de France* (Évreux: Christian de Bartillat, 1991), 164.
 73. Sahlins, *Forest Rites*, 29-30.
 74. See ADAM 521 W 57, Lieutenant Lafforgue, head of Forest Fire Service, to Commandant Chaudière, "Renseignements sur l'organisation des dispositions de protection contre les incendies de forêts," [n.d.]; and ADAM 521 W 57, president of Special Delegation for Castellar to Prefect of the Alpes-Maritimes, "Objet: Incendie de 3 août 1943"; mayor of Lucéram to prefect of Alpes-Maritimes "Objet: Incendie de 3 août 1943," August 6, 1943.
 75. One town mayor praised the "beautiful attitude" of a detachment of Italian troops highlighting their "drive, calmness, energy, and determination." ADAM 521 W 57, mayor of Turbie to prefect of Alpes-Maritimes, "Rapport sur une incendie qui s'est déclaré dans la région du Mont Bataille," July 20, 1943.
 76. ADAM 521 W 6, M. Leroy, interim forestry adjacent inspector, Nice-Est, June 19, 1943. These concerns need to be seen in the light of foresters' longstanding belief that peasant practices threatened mountain forests. See Whited, *Peasant Politics in Modern France*.
 77. ADAM 521 W 6, forestry inspector Nice Ouest, "Note de service," January 26, 1943.
 78. See, for example, ADAM 521 W 6, M. Leroy, interim forestry adjacent inspector, Nice-Est, "Rapport," June 24, 1943; and Forestry Guard Michel, Mougins, "Procès-verbal de constat no. 6," August 5, 1944.
 79. ADHA 1043 W 74, M. Allouard, forestry inspector, Briançon, "Rapport," October 15, 1943.
 80. ADAM 521 W 6, forestry conservator, Nice, "Note de Service: Ravitaillement en Bois de Chauffage et de Cuisine des Troupes italiennes en Opérations dans les Alpes-Maritimes," November 18, 1942; ADAM 521 W 6, forestry inspector, Dranguignan, to forestry inspector, Nice, July 7, 1943; ADHA 1043 W 74, M. Arnaud, forestry inspector,

- Embrun, "Rapport: occupation par les Italiens: coupes abusives," September 4, 1942; and forestry conservator, Gap, to forestry inspector general, April 9, 1942.
81. ADAM 521 W 6, mayor of St-Saveur, "Extrait du Registre des Délibérations du Conseil Municipal de la Commune de St-Saveur, séance du 11 juillet 1943: exploitation par l'autorité italienne de la forêt du Bois noir."
 82. ADAM 521 W 6, M. Février, forestry adjacent inspector, Nice, "Rapport," March 17, 1943.
 83. On the Alpes-Maritimes, see ADAM 521 W 52, "Bulletin de renseignements sur l'incendie constaté le 20 juillet 1943"; ADAM 521 W 52, "Bulletin de renseignements sur l'incendie constaté le 5 janvier 1944"; and ADAM 521 W 57, police commissioner of Vallauris to prefect of Alpes-Maritimes, "Objet: feu de forêt," June 5, 1943. On the Bouches-du-Rhône, see ADBDR 76 W 33, Gendarme nationale, 15th legion, Company of Bouches-du-Rhône, No. 1805/2 "Confirmation messages téléphonés ce jour 9 juillet 1943 à 19h." On the Var, see AD 1790 W 130, M. Millischer, forestry inspector, Draguignan, "Rapport trimestriel," October 23, 1942.
 84. ADAM 521 W 6, Joseph Ezojani and Roger Millo, "Procès-verbal de délit," March 22, 1943; and M. Beaugerie, forestry general guard, Nice-Ouest, "Rapport: coupes et dommages causés par les troupes italiennes," March 25, 1943.
 85. ADAM 521 W 5, interim forestry inspector, Nice Ouest, to M. Bensa, April 20, 1943; ADAM 521 W 5, forestry brigadier, Contes, to forestry inspector, Nice Ouest, April 22, 1943; and ADAM 521 6, forestry adjacent inspector, Nice Ouest, to forestry conservator, Nice, July 6, 1943.
 86. ADBDR 51 W 25, Service dommages assimilés, dossier CA 42.442 Ag, "Objet: Incendies de forêt du 19 au 23 août 1943," June 2, 1947.
 87. CAC 19771461/41, M. Deslandres, forestry conservator, Amiens, to forestry director general, "État d'avancement de la livraison du chauffage à l'Armée d'occupation," September 25, 1941. See also general secretary of GIF Central Committee to Öberlandforstmeister Haussmann, head of German Forestry Service, "Objet: Exploitations forestières par des Services Allemands," May 27, 1942. On the Ordonnance, see CAC 19771461/ 41, GIF Central Committee to regional forestry conservators, controllers general for forestry production, presidents of regional management committees of the Northern Zone, "Lettre-circulaire, objet: "Exploitations de bois sur pied et achats de bois abattus effectués par les Unités et Services allemands," August 21, 1943.
 88. CAC 19771461/ 41, For the military governor, head of the Military Administration Haussmann to GIF Central Committee, "Objet: Enquête sur l'acheminement de bois brut pour carburants solides et de bois de feu dans la région parisienne," July 23, 1944.
 89. Commission consultative, *Dommages subis par la France et l'Union française* 6, 72.
 90. ADAM 109 W 8, prefect of Alpes-Maritimes to under-prefect of Grasse and mayors of the Alpes-Maritimes, "Objet: Engins incendiaires utilisés par certains aéronautiques." [n.d.]; and ADAM 109 W 8, minister for war to prefects, "Objets: programme de défense passive," April 17, 1941.
 91. ADBDR 76 W 33, Squadron Chief Grassy, commander of Gendarme Company for the Bouches-du-Rhône, "Rapport sur les nombreux incendies allumés dans les forêts du Département depuis le début de juin 1942," August 29, 1942. Richard Tucker also suggests that refugees and resistance fighters lit forest fires to thwart German operations in "World Wars and the Globalization of Timber Cutting," 122.
 92. Quoted in Christian Durandet, *Les Maquis de Provence* (Paris: Éditions France-Empire, 1974), 215. Claude-Marie Vadrot suggests that the German army lit fires to flush out resistance units and destroy their cover, such as in Fontainebleau forest, in *Guerres et environnement: panorama des paysages et des écosystèmes bouleversés* (Paris: Delachux et Niestlé, 2005), 219.

93. National Archives, London, WO 252/198, Inter-Service Topographical Department, "France-Mediterranean Coast: Special Report on Coast, Beaches, and Exits from Toulon to the Franco-Italian Border Including Abridged Descriptions of the Small Ports of St. Tropez, St. Raphaël, Cannes, Antibes, Villefranche, and Monaco," March 18, 1943. On the history of the Allied landings, see Arthur Layton Funk, *Hidden Ally: The French Resistance, Special Operations, and the Landings in Southern France, 1944* (New York: Greenwood Press, 1992); and Philippe Lamarque, *Débarquement en Provence: 15e Août 1944* (Paris: Le Cherche-Midi, 2003).
94. Amiral André-Georges Lemonier, *Cap sur la Provence* (Paris: Éditions France-Empire, 1955), 82. See also Alfred Martin-Siegfried, "Le débarquement allié sur les côtes varoises," *Forêt Méditerranéenne* 2 (December 1980): 209-10; and Alfred Martin-Siegfried, "Stratégie et environnement: le débarquement allié sur la côte varoise, août 1944: Un désastre évité de justesse" *La Cohorte* 75 (July 1982): 21-24.
95. ADAM 521 W 31, M. Loudes, "Rapport sur la forêt de Port Cros," [n.d.]; ADBDR 51 W 69, M. Arbuaud, principal forestry engineer, "Rapport: Commune de Gémenos-Dommages de Guerre, demande de transfert d'indemnités," April 25, 1957; and ADBDR 51 W 69, Etienne Olivier, "Procès verbal de constat de rapport d'expertise," December 4, 1947. German units also used fire during their retreat from the commune of Roquefort-la-Bédoule. See ADBDR 51 W 73, "Rapport d'enquêteur agricole, Dossier CA H1917Z, 5 décembre 1953." The figure of 2,769 hectares comes from an analysis of forestry administration files in the *archives départementales* of the Alpes-Maritimes, Bouches-du-Rhône, and Var.
96. Commission consultative, *Dommages subis par la France*, vol. 6, 25, 44; and Henry S. Kernan, "War's Toll of French Forests," *American Forests* 51 (September 1945): 442.
97. Kernan, "War's Toll of French Forests," 442; and M. Bach, "Les forêts mitraillées en Lorraine," *Revue forestière française* 27 (1975): 217-22. Foresters' reports outline this damage. See, for example, CAC 19880470/172 Pol. Loppinet, forestry conservator, Strasbourg, "Rapport," July 28, 1947. In contrast, officials reported little or no damage to forests in the *départements* of Loiret, Hautes-Pyrénées, Pyrénées-Orientales, and Savoie. See, for instance, CAC 19880470/172 M. Parlier, forestry conservator, Chambéry, "Possibilité par volume des forêts françaises," June 20, 1947. The figure of 200,000 hectares for World War I comes from Tamara L. Whited, "France," in *Encyclopaedia of World Environmental History*, ed. Shepard Krech III, J. R. McNeill, and Carolyn Merchant, 3 vols. (New York: Routledge, 2004), 2:558-59.
98. Compare, for instance the Drôme and the Isère with the Var. See CAC 19880470/172, M. Gobert, Eaux et Forêts conservator, Grenoble, "Possibilité par volume des forêts françaises: départements de l'Isère et de la Drôme," June 23, 1947; and CHAN F107103, Génie rural chief engineer to Génie rural inspector general, "Évaluation provisoire des dommages agricoles causés par la guerre," March 30, 1946.
99. For more on the FFN, see CAC 19880470/144, *Recueil des lois, décrets, arrêtés et règlements financiers concernant le Fonds Forestier National* (Paris: Maison Rapide, [n.d.]); ADAM 521 W 78, Jean de Vaissière, "Le reboisement de la France dans le cadre du plan de restauration agricole" (Toulouse: Imprimerie régional, [n.d.]); CAC 19880470/146, Meeting of Central Control Committee of the Fonds Forestier National, "Note pour Ministre de l'Agriculture: Projet de manifestation à l'occasion de la mise en boisement, par le F.F.N. du 500,000e hectare," October 27, 1955; and *Fonds Forestier National: 25 ans de travaux* (Paris: Documentation Française/Ministre de l'Agriculture, 1972).