

A “Watery Desert” in Vichy France: The Environmental History of the Camargue Wetlands, 1940–1944

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Abstract *This article traces the environmental history of the Camargue wetlands in southern France during World War II. War, defeat, and occupation ushered in agricultural modernization, the establishment of military training grounds, and German submersion plans, all of which threatened constructions of the region as a pure, wild landscape as well as existing ecological conditions. Throughout the war the Société Nationale d'Acclimatation de France (SNAF) campaigned to save its nature reserve, engaging in actions that lay between resistance and collaboration. The SNAF was aided unwittingly by the Camargue's singular climate. This article supports Bruno Latour's call for a reconceptualization of historical agency that includes the nonhuman. It also exposes wider continuities in French environmental history and contributes to Vichy historiography and the burgeoning literature on war and the environment.*

Compared to the Vercors mountain range, where more than three hundred Resistance memorials pepper the landscape, the Camargue bears few traces of World War II. These wetlands, which stretch over 145,000 hectares and form an approximate triangle with the Mediterranean as the base and the Grand and Petit Rhônes as the two sides, are celebrated for their wildlife, bulls, and salt industries and for the Roma festival that takes place every May in Saintes-Maries-de-la-Mer. Indeed, the Camargue's wartime history appears to have been quickly forgotten. In 1948 Henri Marc, Carle Naudot, and Victor Quenin presented timeless images of the wetlands (from 1942 and 1943) in *Terre de Camargue* and described them as “a restful wildness [*une reposante sauvagerie*],” “perhaps the last refuge of everything that was once Pro-

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vence.”¹ Similarly, the naturalists Jacques Blondel and Luc Hoffmann, writing in the 1960s, portrayed the Camargue as a “wild, mysterious, [and] sometimes hostile land” that until recently had “remained almost totally free from modern developments.” The marshes were “in their primitive state,” and this “virgin and savage nature” offered the possibility for “physical and moral regeneration, of which modern humanity has more and more need.”² But war and occupation did not leave the Camargue untroubled. Instead, at this time the future of this so-called watery desert hung in the balance.³

World War II was an important, if overlooked, episode in the Camargue’s environmental history.⁴ But it would be wrong to suggest that war and occupation threatened a pristine wilderness. Rather, centuries of interlocking human and natural histories had created a thoroughly hybrid landscape by 1939.⁵ Yet this did not prevent traditionalist writers and nature preservationists from constructing the Camargue as a wild, virginal landscape worthy of protection for its Provençal traditions, aesthetic beauty, and scientific significance (the area was, and still is, famed for its birdlife, particularly its greater flamingos, *Phoenicopterus ruber roseus*).⁶ For its defenders, war and occupation threatened the Camargue with irreversible transformation. The challenges were multiple: Vichy technocrats sought to further the Camargue’s domestication through agricultural modernization, and French, American, and German air forces identified its apparently empty expanses as ideal aerial training grounds. This military mobilization culminated in the German army’s plan to flood the wetlands in the summer of 1944 to prevent Allied planes from landing in the event of an invasion. Against these pressures the Société Nationale d’Acclimatation de France (SNAF) battled to ensure the survival of its nature reserve in the Basse-Camargue.

This article aims to contribute to the burgeoning body of literature on the environmental history of war, as well as to the more estab-

¹ Henri Marc, Carle Naudot, and Victor Quenin, *Terre de Camargue* (Grenoble, 1948), 12.

² Jacques Blondel and Luc Hoffmann, “L’originalité et le rôle de la réserve de Camargue,” prepared for *Bulletin des réserves naturelles et ornithologiques de Belgique* [late 1960s?], 14, 16–17, 23, Alexander Library, Zoology Library, University of Oxford, France box 1938–1952.

³ Tony Burnand and Joseph Oberthür use the term *désert d’eau* in *Toute la Camargue*, 2 vols. (Paris, 1938–39), 1:7.

⁴ For instance, the war is not treated in detail by Bernard Picon, *L’espace et le temps en Camargue* (Arles, 1988); or by Robert Zaretsky, *Cock and Bull Stories: Folco de Baroncelli and the Invention of the Camargue* (Lincoln, NE, 2004).

⁵ On human-nature hybridity, see Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York, 1991); Sarah Whatmore, *Hybrid Geographies: Natures, Cultures, Spaces* (London, 2002); and Richard White, *The Organic Machine: The Remaking of the Columbia River* (New York, 1996).

⁶ See Alan R. Johnson, “Long-Term Studies and Conservation of Greater Flamingoes in the Camargue and Mediterranean,” *Colonial Waterbirds* 20 (1997): 306–15.

lished historiography of Vichy France. For although historians of World War II and its aftermath in France have explored the Vichy regime's agricultural and *retour à la terre* (back to the land) policies, the rural context of resistance, and the reconstruction of urban areas, they have paid less attention to the period's environmental history.⁷ In addition, while work on the environmental history of war has addressed natural resource exploitation, the targeting of nonhuman "enemies," and war's ecological impact, it has not fully examined wartime nature protection and nature's agency in wartime.⁸ I contend that the environmental history of the Camargue, an apparently marginal site, matters because it allows for an exploration of lines of inquiry that tend to be overlooked in accounts of World War II in France. This article pursues three of these lines: the contradictions of Vichy's agricultural and *retour à la terre* policies within a "wild" landscape, the significance of wartime nature protection, and nature's role between 1940 and 1944.

Since Robert O. Paxton's groundbreaking *Vichy France*, historians have highlighted the numerous rifts that characterized the regime and

⁷ See, however, Chris Pearson, *Scarred Landscapes: War and Nature in Vichy France* (Basingstoke, 2008); and Pearson, "The Age of Wood: Fuel and Fighting in French Forests," *Environmental History* 11 (2006): 775–803. For Vichy's rural policies, see Isabel Boussard, *Vichy et la corporatisme paysanne* (Paris, 1980); Christian Faure, *Le projet culturel de Vichy* (Lyon, 1989); Bertram M. Gordon, "The Countryside and the City: Some Notes on the Collaboration Model during the Vichy Period," in *France at War: Vichy and the Historians*, ed. Sarah Fishman et al. (Oxford, 2000), 145–60; Don Kladstrup and Petie Kladstrup, *Wine and War: The French, the Nazis, and France's Greatest Treasure* (London, 2001); Jean Vigneux, *La vigne du Maréchal Pétain ou un faire-valoir bourguignon de la Révolution nationale* (Dijon, 2005); and Alice Travers, *Politique et représentations de la montagne sous Vichy: La montagne éducatrice, 1940–1944* (Paris, 2001). For rural resistance, see François Boulet, "Montagne et résistance en 1943," in *Mémoire et histoire: La Résistance*, ed. Jean-Marie Guillon and Pierre Laborie (Paris, 1995), 261–69; Gilbert Garrier, "Montagnes en résistance: Réflexions sur des exemples en Rhône-Alpes," in *La Résistance et les Français: Enjeux stratégiques et environnement social*, ed. Jacqueline Sainclivier and Christian Bougeard (Rennes, 1995), 207–20; Philippe Hanus, "Faire feu de tout bois: Forestiers, bûcherons et maquisards dans les forêts du Vercors (1939–1945)," *Cahiers du Peuil* 7 (2008): 146–59; Ian Higgins, "France, Soil, and Language: Some Resistance Poems by Luc Berimont and Jean Marcenac," in *Vichy France and the Resistance: Culture and Ideology*, ed. H. R. Kedward and Roger Austin (London, 1985); and H. R. Kedward, *In Search of the Maquis: Rural Resistance in Southern France, 1942–1944* (Oxford, 1993). On urban reconstruction, see Hugh Clout, "Ruins and Revival: Paris in the Aftermath of the Second World War," *Landscape Research* 29 (2004): 117–39; Sarah Farmer, *Martyred Village: Commemorating the 1944 Massacre at Oradour-sur-Glane* (Berkeley, CA, 1999); *Reconstructions et modernisation: La France après les ruines 1918 . . . 1945 . . .* (Paris, 1991); and Danièle Voldman, *La reconstruction des villes françaises de 1940 à 1954: Histoire d'une politique* (Paris, 1997).

⁸ For introductions to the environmental history of war, see Edmund P. Russell, *War and Nature: Fighting Humans and Insects with Chemicals, from World War I to "Silent Spring"* (New York, 2001); and Edmund P. Russell and Richard P. Tucker, eds., *Natural Enemy, Natural Ally: Toward an Environmental History of Warfare* (Corvallis, OR, 2004). See also Lisa M. Brady, "The Wilderness of War: Nature and Strategy in the American Civil War," *Environmental History* 10 (2005): 421–47; Joseph Hupy, "The Environmental Footprint of War," *Environment and History* 14 (2008): 405–21; John R. McNeill, "Woods and Warfare in World History," *Environmental History* 9 (2004): 388–410; William M. Tsutsui, "Landscapes in the Dark Valley: Toward an Environmental History of Wartime Japan," *Environmental History* 8 (2003): 294–311; and A. Joshua West, "Forests and National Security: British and American Forest Policy in the Wake of World War I," *Environmental History* 8 (2003): 270–93.

its policies.⁹ In the Camargue, different factions sought simultaneously to modernize and to preserve the landscape. This divisiveness was driven by ideological preferences and material necessity and was part and parcel of national agricultural policies implemented in post-1940 France. In response to the material shortages ushered in by military defeat, Vichy launched a campaign to cultivate the maximum amount of French soil. Unproductive stretches of “wasteland,” such as marshland and *maquis* (scrub) vegetation, were to be replaced with fields and forests. Given the internal divisions, ministers, officials, and advisers advanced various measures to eradicate “wasteland,” including family farming, large-scale reforestation, and the draining of marshland.¹⁰ The Camargue’s expanses of lagoons and supposedly unproductive vegetation made it a prime target.

At the same time, traditionalists within or associated with the regime identified redemptive, almost spiritual powers resident in the French soil. For such writers as Henri Pourrat, bringing the French into contact with the land and harnessing its energies would lead to France’s moral and physical renewal.¹¹ Historians have tended to associate *retour à la terre* rhetoric with fields and farmers, yet it was also directed toward forests and the Basse-Camargue, whose wild, seemingly eternal landscape led to its classification as a “national monument” in 1942.¹²

Uncovering the Camargue’s wartime environmental history also requires considering the significance of wartime nature preservation. In France and elsewhere, the theory and practice of environmental history range more widely than the study of post-1960s environmental movements. Indeed, part of the project of environmental history has been to outline the historical roots of nature conservation, preservation, and environmentalism.¹³ Within French environmental history, most attention has focused on nature conservation and preservation before 1940 or on post-1960s environmentalism. In other words, this scholarship tends to brush over the war years.¹⁴ In contrast, this

⁹ Robert O. Paxton, *Vichy France: Old Guard and New Order, 1940–1944* (London, 1972). See also Marc Olivier Baruch, *Servir l’Etat français: L’administration en France de 1940 à 1944* (Paris, 1997); Julian Jackson, *France: The Dark Years, 1940–1944* (Oxford, 2001), 144–48; John Hellman, *The Knight-Monks of Vichy France: Uriage, 1940–1945* (Liverpool, 1997), 139; H. R. Kedward, *Occupied France: Collaboration and Resistance, 1940–1944* (Oxford, 1985), 31; and Sean Kennedy, “Accompanying the Marshal: La Roque and the Progrès Social Français under Vichy,” *French History* 15 (2001): 186–213.

¹⁰ Many of these schemes are outlined in Ministère de l’Agriculture, *Agriculteurs, voici ce qu’en un an le gouvernement du Maréchal a fait pour vous* (Vichy, 1942).

¹¹ Henri Pourrat, *L’homme à la bêche: Histoire du paysan* (Paris, 1940), 282.

¹² On the *retour à la terre* in the forest, see Pearson, “Age of Wood,” 784–87.

¹³ A key work is Richard Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins of Environmentalism, 1600–1860* (Cambridge, 1995).

¹⁴ For the pre-1940 period, see Caroline Ford, “Nature, Culture, and Conservation in France and Her Colonies, 1840–1940,” *Past and Present*, no. 183 (2004): 173–98; and Tamara L. Whited,

article explores how the SNAF managed a metropolitan nature reserve between 1940 and 1944 and thereby links existing accounts of prewar and postwar nature preservation. It suggests that wartime threats to the reserve came from both civilian and military sectors as Vichy's cultivation plans and Axis and Allied military mobilizations of the landscape threatened to transform the reserve's habitat. The SNAF's wartime struggle to protect the Camargue also anticipated later campaigns against the militarization of the French landscape.

In addition to situating the SNAF's wartime nature protection activities within French environmental history, this article seeks to integrate them in Vichy historiography. The SNAF's long-term aim of protecting France's biological and scientific "treasures" between 1940 and 1944 led it both to oppose and to ingratiate itself with the Vichy regime and with Allied and Axis military authorities. Philippe Burrin and Lynne Taylor (among others) have shown the inability of the terms *resistance* and *collaboration* to capture much of the French wartime experience, and the SNAF's wartime activities do not fit neatly into either category.¹⁵ How the SNAF negotiated the political complexities and compromises of the "dark years" provides further evidence of the constant need to question the resistance-collaboration model.

My final theme is nature's role between 1940 and 1944. That nature is more than a static backdrop to human history is a central premise of this article (and of much of environmental history).¹⁶ The mistral, for instance, was a crucial factor in disrupting German plans to submerge the Camargue. But does this mean that we can extend the concept of

Forests and Peasant Politics in Modern France (New Haven, CT, 2000). For postwar French environmentalism, see Michael Bess, *The Light-Green Society: Ecology and Technological Modernity in France, 1960–2000* (Chicago, 2003); and Joseph Szarka, *The Shaping of Environmental Policy in France* (New York, 2002). Other works that overlook the war years include A. Cadoret, ed., *Protection de la nature: Histoire et idéologie, de la nature à l'environnement* (Paris, 1985); Diana K. Davis, *Resurrecting the Granary of Rome: Environmental History and French Colonial Expansion in North Africa* (Athens, OH, 2007); René Guilbot-Neboit and Lucette Davy, eds., *Les Français dans leur environnement* (Paris, 1996); and Sara B. Pritchard, "Reconstructing the Rhône: The Cultural Politics of Nature and Nation in Contemporary France, 1945–1997," *French Historical Studies* 27 (2004): 765–99. Andrée Corvol and Jean-Paul Amat's edited volume, *Forêt et guerre* (Paris, 1994), focuses mainly on World War I.

¹⁵ See Philippe Burrin, *Living with Defeat: France under the German Occupation, 1940–1944* (London, 1996); and Lynne Taylor, *Between Resistance and Collaboration: Popular Protest in Modern France, 1940–1945* (Basingstoke, 2000). See also Dominique Veillon, "The Resistance and Vichy," in Fishman et al., *France at War*, 161–77. I do not want to suggest that historiographical understandings of resistance and collaboration have remained static. For a recent nuancing of Vichy collaboration with Nazi Germany, see Simon Kitson, *The Hunt for Nazi Spies: Fighting Espionage in Vichy France* (Chicago, 2008).

¹⁶ Ted Steinberg calls for "a concept of human agency that credits ecological and biological factors without reducing them to rigid determining elements operating on a one-way causal highway" ("Down to Earth: Nature, Agency, and Power in History," *American Historical Review* 107, no. 3 [2002]: par. 11, www.historycooperative.org/journals/ahr/107.3/ah0302000798.html). See also Richard C. Foltz, "Does Nature Have Historical Agency? World History, Environmental History, and How Historians Can Help Save the Planet," *History Teacher* 37, no. 1 (2003), www.historycooperative.org/journals/ht/37.1/foltz.html.

agency to environmental factors, such as climatic conditions? Was the environment an agent between 1940 and 1944?

To answer these questions, it is helpful to draw on the work of Bruno Latour, who has called for a reconceptualization of agency that moves beyond the prerequisite of self-reflexivity and intentionality to include objects and nonhumans. For Latour, separating humans from nonhumans creates a false dichotomy and disguises their interconnected agencies; “*any thing*” that makes a difference to other actors (intentionally or not) can be considered an agent. Things, which might include microbes, machines, or animals, neither determine outcomes nor act collectively as a backdrop. Instead, they “might authorize, allow, afford, encourage, permit, suggest, influence, block, render possible, forbid, and so on.”¹⁷ In line with Latour’s attempt to close the divide between nature and culture, Donna Haraway contends that agency needs to be treated as a “relational matter” and as something that emerges from encounters between humans and nonhumans.¹⁸ Latour’s and Haraway’s clearing of the theoretical ground leads me to suggest that the Camargue’s environment was (and still is) an agent. In particular, the intermingling of human and nonhuman factors thwarted German defensive aims. Yet the environment did not act “intentionally.” *Agency* is not a synonym for *intentionality*. This emphasis on reciprocal (if often uneven) encounters between human and nonhuman agents carves out a productive middle ground between the polarities of environmental determinism and a model of agency centered solely on the human mind.

Moreover, wherever human and nonhuman agencies have long intermingled, it is probably impossible to categorize landscapes neatly as “cultural” or “natural.” Instead, it is more useful to treat landscapes as hybrid—the ongoing outcomes of human-nonhuman interaction.¹⁹ This is certainly the case with the Camargue, and so this article outlines the wetlands’ prewar environmental history before delving into their post-1940 history of muddled Vichy policy making, nature preservation campaigns, and military mobilizations, which increased dramatically after the German invasion of the unoccupied zone in November 1942.

Creating the *Réserve Naturelle*

The Camargue was fashioned through a combination of natural and human factors. This process began in the Flandrian period of the

¹⁷ Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford, 2005), 71, 72. See also Latour, *We Have Never Been Modern*, trans. Catherine Porter (Cambridge, MA, 1993).

¹⁸ Donna Haraway, *When Species Meet* (Minneapolis, MN, 2008), 262.

¹⁹ See Bess, *Light-Green Society*, 256–65; and Kerry Whiteside, *Divided Natures: French Contributions to Political Ecology* (Cambridge, MA, 2002), 47–48.

Upper Pleistocene, when the Rhône deposited silt and sands to form dunes that now reach to about four meters above sea level at their highest. High temperatures and strong winds, such as the mistral, result in a deficit of water, which allows salt aquifers to rise to the surface, privileging *sansouire* vegetal associations (dominated by *Salicornia* plants) that can withstand the high salt content of the soil.²⁰

Human activity has strongly shaped the physical evolution of the Camargue. From Caesar's establishment of Arles in 46 BCE, successive waves of agricultural settlers cultivated the wetlands, leading, by the Middle Ages, to deforestation, drainage projects, and irrigation and flood defense systems. Yet the inhospitable climate and the poor soil made the Camargue hard to "tame" and kept it sparsely populated; not until the large-scale drainage works of the nineteenth century was it more extensively cultivated.²¹ In all, thirty thousand hectares were reclaimed with dikes along the Rhône, a seawall, and drainage ditches that restricted salt steppes and lagoons to the lowest-lying southern Camargue.²² Politically, this process was far from smooth; throughout the latter half of the nineteenth century, farmers and the salt extraction industry competed for priority.²³ The Camargue's contact with the Rhône and the Mediterranean is now controlled by a complex system of dikes, drains, and pumps, so that the "natural" environment is in fact "completely artificialized."²⁴

Despite these extensive human modifications, prewar writers constructed the Camargue as a wild and hostile place. Writing in 1933, Fernand Benoît, an eminent Provençal archaeologist, portrayed it as "a landscape of infinite desolation" where mirages contributed to the "unreal and tragic character" of the setting, and whose human inhabitants were subjected to "wind, encroachments from the sea, fevers, and mosquitoes."²⁵ But other interwar observers celebrated this land-

²⁰ This description is based on Patrick Duncan, *Horses and Grasses: The Nutritional Ecology of Equids and Their Impact on the Camargue* (New York, 1992), 23–25; Luc Hoffmann, "An Ecological Sketch of the Camargue," *British Birds* 51 (1958): 321–22; and Picon, *Espace et le temps*.

²¹ See Picon, *Espace et le temps*, 35–53. War also helped mold the Camargue's landscape: thick forests of oaks, elms, and pines once supplied wood for naval ships (Fernand Benoît, *La Camargue* [Paris, 1933], 10).

²² These drainage projects were part of a nationwide reclamation scheme initiated by Napoléon III. See Hoffmann, "Ecological Sketch," 322; and Hugh D. Clout, "Reclamation of Coastal Marshland," in *Themes in the Historical Geography of France*, ed. Hugh Clout (London, 1977), 204–8.

²³ See Picon, *Espace et le temps*, 82–86. Salt production has also been an important factor in the creation and maintenance of the Guérande marshlands in western France. See Ian B. Thompson, "The Role of Artisan Technology and Indigenous Knowledge Transfer in the Survival of a Classic Cultural Landscape: The *Marais Salants* of Guérande, Loire-Atlantique, France," *Journal of Historical Geography* 25 (1999): 216–34.

²⁴ Thierry Lecomte et al., "Au sujet du marais . . .," in Cadoret, *Protection de la nature*, 52.

²⁵ Benoît, *Camargue*, 5, 16–17. Benoît's vision of the Camargue fitted with a deep-seated "expert" view of European wetlands "as dark, disorderly corners of nature, where vegetation and

scape, paradoxically because it had been thoroughly modernized and “improved” as a place of wildness, tradition, and virgin nature.²⁶

In particular, writers associated with the Félibrige movement viewed the Camargue as an ancient and mysterious landscape. Robert Zaretsky shows how Félibrige writers (a group of poets inspired by Frédéric Mistral who strove to preserve Occitan language and culture) used the Camargue as a “screen” for their traditionalist musings and for constructions of regionalist identities. The Camargue’s supposed wildness acted as a guarantor of Occitan traditions, specificity, and nationalism against the centralizing tendencies of Paris. As such, it deserved protection from an outside world that threatened it with “uniformity and homogeneity.”²⁷

The urge to protect the Camargue’s strange beauty and charm from modernity was shared by others. On the eve of World War II, Tony Burnand, a writer specializing in fishing and hunting, and Joseph Oberthür, a naturalist, writer, and artist, published the two-volume *Toute la Camargue*, an introduction to the wetlands and a passionate plea for their preservation. They longed for a Camargue cleansed of, and protected from, the trappings of modernity: an “ethnological, botanical, and zoological reserve.”²⁸ Burnand and Oberthür’s viewpoint typifies a critique of industrial modernity in interwar France that lauded a “return to the land.”²⁹ But whereas this impulse is normally associated in France with the peasantry and agriculture, the example of the Camargue suggests that other economic sectors were interested as well.

Indeed, Burnand and Oberthür called for an “opposing influence” to challenge industrial modernity and for someone to “fight, put up the barriers, [and] desperately maintain all that makes up the Camargue’s beauty, its moral dignity, its physical splendor.”³⁰ They therefore praised the SNAF for striving to preserve the Camargue’s fauna and flora in the twelve-thousand-hectare reserve centered on the Vaccarès lagoon that the society had managed since 1927. To be sure, Burnand and Oberthür’s view of the reserve as a pristine slice of wilderness saved from the ravages of the modern capitalistic state was simplistic and

animal bodies decayed, emitting noxious-smelling and unhealthy miasmas” (David Blackburn, “Conquests from Barbarism: Taming Nature in Frederick the Great’s Prussia,” in *Nature in German History*, ed. Christof Mauch [New York, 2004], 14).

²⁶ Picon, *Espace et le temps*, 17.

²⁷ Zaretsky, *Cock and Bull Stories*, 9, 126.

²⁸ Burnand and Oberthür, *Toute la Camargue*, 2:200.

²⁹ See Romy Golan, *Modernity and Nostalgia: Art and Politics in France between the Wars* (New Haven, CT, 1995). Returning to the land was not an exclusively right-wing ideal, as Shanny Peer illustrates in *France on Display: Peasants, Provincials, and Folklore in the 1937 Paris World’s Fair* (Albany, NY, 1998). Nor was it an exclusively French movement. See John A. Williams, *Turning to Nature in Germany: Hiking, Nudism, and Conservation, 1900–1940* (Stanford, CA, 2007).

³⁰ Burnand and Oberthür, *Toute la Camargue*, 2:189.

romanticized. The reserve was not created on a wilderness. The Camargue's environment was highly artificialized, as noted above, and the site itself was owned (but no longer exploited) by Alais-Frogès-Camargue, a powerful salt company with personal ties to the SNAF. Nor was the reserve universally accepted. Some local inhabitants opposed the withdrawal of their hunting, fishing, and grazing rights; even now some view the reserve as a Paris-imposed "quasi-colonial" enterprise.³¹

Accusations of colonialism do not fall wide of the mark, because the SNAF's history is rooted in colonial science. Established in 1854, the society concentrated on acclimatization in, or the introduction and adaptation of nonnative species to, the French colonies.³² By the twentieth century, however, the SNAF had adopted a vision concerned more with protecting indigenous species. As a consequence, the SNAF began to establish *réserves naturelles*, such as the Camargue, in metropolitan France and sought to further the protection of fauna and flora in France's colonies.³³ Its agreement with Alais-Frogès-Camargue meant that the Camargue was part of the network of protected natural sites in France and Africa that had developed since the mid-nineteenth century: Napoléon III made 1,097 hectares of Fontainebleau forest a *réserve artistique* in 1861; the Réserve Naturelle des Sept-Iles was created off the Brittany coast in 1912, and a five-thousand-hectare reserve around Mont Pelvoux in the Alps in 1914; and colonial administrators established thirteen national parks in Algeria and ten natural reserves in Madagascar between 1923 and 1927.³⁴ The increasing focus on nature protection, however, did not mean that the SNAF had abandoned its scientific study of the Camargue's environment. According to Gabriel Tallon, a former chemical engineer who became director of the Camargue reserve in 1929 and stayed there for almost forty years, the SNAF had two main aims in the Camargue: to protect nature and to promote scientific study.³⁵

The SNAF had high hopes for the Camargue reserve. Tallon believed that under the society's careful management the reserve would become "an oasis where birds can frolic in peace." It would also serve as a "center of radiance for the philosophy of nature protection."³⁶ According to Clément Bressou, the SNAF's secretary-general and director of its reserves, human activity must be suppressed so that

³¹ See Picon, *Espace et le temps*, 93–99. See also Jacques de Caffarelli, "Histoire de la réserve de Camargue," *Le courrier de la nature*, Jan.–Feb. 1975, 57–61.

³² See Bess, *Light-Green Society*, 64–66. For a detailed history of the SNAF, see Michael A. Osborne, *Nature, the Exotic, and the Science of French Colonialism* (Bloomington, IN, 1994).

³³ See Ford, "Nature, Culture, and Conservation," 191–92.

³⁴ See Bess, *Light-Green Society*, 67–68; and Ford, "Nature, Culture, and Conservation," 183.

³⁵ Gabriel Tallon, *La réserve zoologique et botanique de Camargue* (Paris, n.d.), 16.

³⁶ *Ibid.*, 21.

nature could “be given back to itself, free to follow its own evolutionary tendencies, free from the actions of humanity.”³⁷ This stance was somewhat ironic, given that humans had greatly modified the Camargue and that the reserve’s very existence depended on a system of dikes, drains, and pumps. Nonetheless, the “renaturing” of the reserve was a central component of the SNAF’s long-term plans.

Before the outbreak of war in 1939, the SNAF basked in praise for its attempts to preserve the Camargue’s “natural” landscape. The water and skies of the Vaccarès “spoke of rediscovered peace [and] the state of nature finally recovered.”³⁸ This sense of calm was, however, illusionary. War, defeat, and the establishment of Philippe Pétain’s *Etat français* threatened to radically transform the Camargue’s landscape.

The Camargue between Cultivation and Classification

The Camargue posed something of a conundrum for the newly installed Vichy regime, which was torn between traditionalist and technocratic factions and impulses. On the one hand, the Camargue was a symbol of regionalist tradition that dovetailed with Vichy traditionalists’ *retour à la terre* philosophy. On the other hand, the region was ripe for technocratic agricultural “improvement.” In 1942 Marceau Jouve of the Union Régionale Corporative Agricole des Bouches-du-Rhône presented the dual possibilities of the Camargue to Pierre Caziot, Vichy’s minister for agriculture. The Camargue was a “nostalgic land that has greatly inspired poets, an Eden for wildlife hunters, [and a place] where flamingos and wild ducks hover throughout the year. . . . But this Rhône delta is also . . . a rich alluvial land where winemakers abound . . . and . . . it is also the only place in France where rice cultivation is possible.”³⁹ Furthermore, marsh drainage would permit wheat cultivation over thousands of hectares. The Camargue offered both wildlife and wildness, as well as wine and wheat (alongside the salt extraction industry). Of course, previous governments had faced similar dilemmas, but the exigencies of postdefeat France added a particular impetus. The Vichy regime’s technocratic and traditionalist splits presented further complications. In the end, there was no coherent policy toward the Camargue, and Vichy tried to have it both ways, introducing plans to modernize agriculture *and* legislation to protect the Camargue’s natural heritage. These policies were inevitably riddled with contradictions.

Plans to drain the Camargue vied with the Vichy regime’s inten-

³⁷ Clément Bressou, preface to Burnand and Oberthür, *Toute la Camargue*, 1:ix.

³⁸ Burnand and Oberthür, *Toute la Camargue*, 2:196, 199–200.

³⁹ Marceau Jouve, *Rapport sur l’agriculture dans les Bouches-du-Rhône* (Marseille, 1942), 4–5.

tions to drain and cultivate marshlands in the Limagne area of the Auvergne, at Saintonge in the Charente-Maritime *département*, and in the Vendée.⁴⁰ Commenting on the draining of the Albens wetlands in the Savoie *département*, Josette Reynaud praised the government's efforts, which would provide work for the unemployed, increase the arable land by eight hundred hectares, and purify the local climate by removing "the fog that is so harmful to delicate crops."⁴¹ Vichy therefore joined Fascist Italy and Nazi Germany in the 1940s as an authoritarian regime that implemented marsh reclamation as a way of fighting unemployment, boosting agrarian production, and promoting agricultural colonization.⁴²

Like the draining of the Albens wetlands, the regime's proposals for agricultural development in the Camargue did not pass unnoticed. In 1941 Jean Bazal put the matter starkly in *L'illustration* by asking, "Are we going to drain the Camargue?" The government, his article revealed, planned to lower the water level in the Vaccarès to encourage drainage from higher fields, while fifteen pumping stations drained water from lower-lying fields.⁴³ These plans met with some approval. Paul-Emile Cadilhac, also writing in *L'illustration*, integrated them into a historical narrative of the Camargue that stressed its domestication rather than its wildness. Describing agricultural modernization in glowing terms, he argued that the Camargue was "not just the land of bulls, a theme for literature, an emotionally moving landscape, or a godsend for hunters"; it also boasted a long history of agricultural exploitation that, thanks to the war, was reviving and being extended. For instance, one now saw rice grown in the Camargue, after a long absence, because it could not be imported from Indochina. Cadilhac also praised the government's renovation of the Camargue's irrigation systems and the electrification of its pumping stations.⁴⁴ Vichy's agricultural schemes enjoyed some success. In 1942, 350 hectares of rice was planted, with another 1,000 in 1943.⁴⁵ Wine production, however, was less impressive, failing to reach its 1933 high of thirty-six hundred hectares before ceasing in 1942.⁴⁶

⁴⁰ *Agriculteurs, voici*, 34.

⁴¹ Josette Reynaud, "Actualité: Le dessèchement des marais d'Albens (Savoie)," *Revue de la géographie alpine* 32 (1944): 502.

⁴² See E. J. Russell, "Agricultural Colonization in the Pontine Marshes and Libya," *Geographic Journal* 94 (1939): 273–89; and David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (London, 2006), 270–72.

⁴³ Jean Bazal, "Un plan de grands travaux: Va-t-on assécher la Camargue?" *L'illustration*, Feb. 1, 1941, 105–7.

⁴⁴ Paul-Emile Cadilhac, "A la conquête de la terre: L'avenir de la Camargue," *L'illustration*, Mar. 6, 1943, 141–43.

⁴⁵ The harvest for 1942 came to one thousand metric tons. See René Bomio, "Le riz en Camargue," *Science et vie*, no. 383 (1949): 102; and Cadilhac, "A la conquête de la terre," 143.

⁴⁶ See Picon, *Espace et le temps*, 88.

Vichy-led agricultural modernization alarmed some, because it threatened to transform fundamentally the physical characteristics of the Camargue. As such, this initiative reignited earlier debates on agricultural expansion and modernization. The SNAF's long-term management of its reserve was partly motivated, for instance, by the sense that nature required protection from modernity, including intensive agriculture.⁴⁷ In 1928 (a year after the reserve's creation) a state project had proposed lowering the Vaccarès's water level.⁴⁸ The threat resurfaced in the early 1930s, when the SNAF opposed proposals to drain the Vaccarès to make way for vineyards. One observer noted that the society "certainly deserves to win, for if its mandate [to manage the wetlands] were withdrawn, I am afraid that there would be a massacre of innocents on the Camargue."⁴⁹

If anything, wartime agricultural modernization heightened such anxieties. Writing in 1942, Frédéric Gaymard feared that if the government boosted agricultural production and drained the marshes, it might deprive the Camargue of its "current physiognomy," leaving it only "an immense cultivated plain like all the other plains; the *camarguais* bulls and horses will be progressively pushed back until they finally disappear." Still, Gaymard acknowledged that it was necessary to "yield to the demands of the painful period in which we live," and he wished Vichy success with its agricultural plans: "We, the friends of the Camargue, bend toward the inevitable, but we will guard a vivid memory of this strange land, one of the jewels of our beautiful Provence." He hoped, however, that some parts of the Camargue could keep their individuality so that certain regional traditions could be protected.⁵⁰

Others were less hesitant. Although Bazal claimed "complete objectivity" when examining the question of the Camargue's management, it was clear where his loyalties lay. His article pointed out several problems that Vichy's project posed. Only grass and grapes would be able to grow on the recovered land, and France already produced enough wine (interestingly, Bazal makes no mention of Vichy's concerns about alcoholism). Furthermore, the potential transformation of the Vaccarès would disrupt valuable fish stocks and foster mosquito populations, turning the region into a hotbed of malaria. To reinforce his argument, Bazal gave an extended interview to Bressou, who asked, "What would Marshal Pétain think about this quarrel between the traditionalists and the moderns?" Bressou, like Bazal, argued that there was already an

⁴⁷ See Bressou, preface, vi; and Tallon, *Réserve zoologique et botanique*, 21.

⁴⁸ See Bazal, "Un plan de grands travaux," 105.

⁴⁹ Susanne R. Day, *Where the Mistral Blows: Impressions of Provence* (London, 1933), 189.

⁵⁰ Frédéric Gaymard, *Camargue* (Marseille, 1942), 24–25, 52.

overproduction of wine in France and that any from the Camargue would be of “poor quality”: “*Voilà* all that the devastation of our Basse-Camargue, a pure, regional treasure, would bring.”⁵¹ Similarly, Folco de Baroncelli, a bull breeder and self-styled aristocratic defender of the Camargue, protested government plans for a hydraulic project near Saintes-Maries-de-la-Mer. Writing personally to Pétain, he portrayed the Camargue as “an island of beauty, light, poetry, and mirages in the midst of the hideous materialism that has been the principal cause of our great calamity [defeat at the hands of Germany].”⁵²

Opposition to the Camargue’s modernization grew nationally. Its supporters mobilized themselves in the capital, forming Les Amis de la Camargue à Paris under the leadership of Joseph Brel.⁵³ According to Brel, the group’s “sole ambition” was to support the “magnificent efforts” of the SNAF in its defense of the Camargue. He also spoke up for the wetlands’ fauna: “Thin-legged flamingos with scarlet corselets, beavers, and you, avocets, black bulls, and white horses, creatures persecuted by human cruelty, we set off with courage in the defense of your land, priceless jewel of the Mediterranean!”⁵⁴

The SNAF also mounted a campaign to minimize the effects of agricultural modernization. It lobbied Charles Colomb, director general of the Forestry Administration, and Monsieur de Pampelonne, director general of the Agricultural Engineering Administration (Génie Rural). The campaign appears to have been largely successful. Following a 1942 report from Pierre Salvat, inspector general of the Forestry Administration, Caziot urged that “the work of the natural reserve of the Camargue . . . be maintained and developed.” Moreover, he declared protection of the reserve “a national necessity, so nothing must be done in the Camargue that would destroy or diminish [it].”⁵⁵ It is not surprising that Vichy traditionalists supported the preservation of the Camargue’s landscape (not to mention the Félibrige movement and the promotion of local dress), given that it had become a symbol of regional traditions.⁵⁶ That traditionalists incorporated the supposedly wild Camar-

⁵¹ Bazal, “Un plan de grands travaux,” 105–7. In a subsequent article Bazal defended the reserve again, arguing that it should be “officially aided and encouraged” to protect migrating birds (“Défense et illustration de la Camargue,” *Visages du monde*, Oct. 1941, 19).

⁵² Quoted in Zaretsky, *Cock and Bull Stories*, 134.

⁵³ Among other things, Brel was an authority on the artichoke. See his book *L'artichaut (Cynara Scolymus): Etude historique, littéraire, agricole, alimentaire et médicale* (Paris, 1930).

⁵⁴ Quoted in Bazal, “Un plan de grands travaux,” 108.

⁵⁵ Quoted in Clément Bressou, “Actes des réserves de la Société nationale d’acclimatation de France: Commission générale des réserves,” in *Conférences de la Société nationale d’acclimatation de France: Actes de réserves de la Société nationale d’acclimatation de France pour 1940 et 1941*, included in *Société nationale d’acclimatation de France, Conférences*, Summer and Autumn 1941, Winter 1942, 40.

⁵⁶ As Zaretsky argues, there was a “dovetailing of ideological concerns” between Vichy and the defenders of the Camargue (*Cock and Bull Stories*, 135). See also Faure, *Projet culturel*, 66–82.

gue into Vichy's *retour à la terre* philosophy, however, suggests that we need to revise our assumption that the movement targeted exclusively cultivated land.

The comments of Caziot, a leading proponent of this philosophy, indicate the contradictions inherent in Vichy's policies toward the Camargue. Most notably, while planning its agricultural modernization, the regime classified the SNAF's reserve among France's "sites and natural monuments of artistic, historic, scientific, legendary, or picturesque character" (*arrêté* of June 8, 1942).⁵⁷ This classification of the Basse-Camargue, the culmination of more than a decade of campaigning by the SNAF, built on previous legislation for the protection of historical and natural monuments, such as the laws of December 31, 1913, and March 2, 1930.⁵⁸ In October 1943 Abel Bonnard, secretary of state for national education, even wrote to Bressou to thank him for his help in protecting this site "of an exceptional character and beauty [and] of unprecedented scientific interest."⁵⁹ Vichy and the SNAF could cooperate, then, when it suited their interests.

But why did Vichy classify the reserve as a natural monument at a time when it sought to intensify agricultural production? One possibility is that conferring this extra protection on the reserve was a way for Vichy to "pay a small price for its lip service to regionalism."⁶⁰ While there is undoubtedly much truth in this observation, Vichy traditionalists also hoped to restore France's traditions and, by extension, its true character and greatness.

The Basse-Camargue's classification was part of Vichy's wider legislative program of heritage conservation. As the secretary of state for national education reminded Pétain, "The national interest demands more than ever" that "our marvelous country" is "impeccably maintained [*tenu*]."⁶¹ The secretary of state for communications also urged the protection of artistic monuments and natural sites, since France was a "rural civilization" and these sites would be important for tourism after the war.⁶² Vichy's attempt to preserve France's heritage included

⁵⁷ Société Nationale pour la Protection de la Nature (hereafter SNPN), Paris, Secrétaire d'Etat à l'Education Nationale, "Arrêté du 8 juin 1942."

⁵⁸ For an overview of heritage laws in France, see Jérôme Fromageau, "L'évolution du droit et des institutions a-t-elle été identique?" in *Patrimoine culturel, patrimoine naturel*, ed. Ecole Nationale du Patrimoine (Paris, 1995), 39–49.

⁵⁹ SNPN, Secrétaire d'Etat à l'Education Nationale, Secrétaire Général des Beaux-Arts to Vice-Président de la Société Nationale d'Acclimatation de France, Directeur Général des Réserves, Oct. 22, 1943.

⁶⁰ Zaretsky, *Cock and Bull Stories*, 135.

⁶¹ Médiathèque de l'Architecture et du Patrimoine (hereafter MAP), 80/1/29 Secrétaire d'Etat à l'Education Nationale, "Rapport au maréchal de France, chef de l'Etat français," n.d.

⁶² Archives Départementales de l'Isère (hereafter ADI), 170 M 8bis, Secrétaire d'Etat aux Communications, Commissariat au Tourisme, "Compte-rendu sténographique de l'exposé fait

1943 laws prescribing inventories of heritage sites and limiting the installation of billboards around protected sites. Furthermore, the government introduced the notion of a *champ de vision* around monuments and strengthened legislation passed in 1910 that forbade advertisements and other eyesores near protected sites.⁶³ Portrayed as part and parcel of rebuilding France, this legislative program “is not dictated by aesthetic considerations of a purely speculative nature,” the regime claimed, “but integrates itself in the restoration program to which this government is dedicated.”⁶⁴ The classification of the Basse-Camargue fell within Vichy’s plans to restore and regenerate France.

Overall, the Camargue’s wartime environmental history exposes the conflicts engendered by the Vichy regime’s internal divisions. The reserve was simultaneously a place to protect and to exploit for its agricultural potential. This relatively defined geographic space therefore embodied the contradictions of a regime torn between ideological imperatives, material pressures, and competing political personalities and philosophies. The SNAF had also maneuvered itself into an ambiguous position, having opposed agricultural modernization while supporting the Basse-Camargue’s classification. The organization was forced into further contortions as it fought for the survival of its reserve in the face of military pressures.

War on the Reserve

It seems almost self-evident that nature conservation is one of the first casualties of war. National defense, military mobilization, and shortages of food and natural resources all make the protection of fauna and flora seem like a luxury, a relic of peacetime.⁶⁵ Yet after the outbreak of war in 1939 concerns were expressed in France about the fate of nature. Speaking with regard to France’s colonies, H. Humbert, a professor at the Muséum National d’Histoire Naturelle in Paris, argued at the Academy for Colonial Sciences in February 1940 that nature protection was worth pursuing in wartime, because in its absence “natives

par M. Henry de Ségogne, commissaire au tourisme lors de la récente installation d’un comité régional,” Aug. 1943, 1–4.

⁶³ MAP, 80/1/30 Secrétaire d’Etat à l’Education Nationale to Préfets, circular no. III, Oct. 9, 1943. See also Archives Départementales des Alpes-Maritimes (hereafter ADAM), 717 W 409, Secrétaire d’Etat à l’Education Nationale to Préfets, circular no. 107, Aug. 12, 1943. On the 1910 legislation, see Patrick Young, “A Tasteful Patrimony? Landscape Preservation and Tourism in the Sites and Monuments Campaign, 1900–1935,” in this issue.

⁶⁴ MAP, 80/1/28, “Note sur la loi relative à la protection des sites et des paysages,” Jan. 3, 1943.

⁶⁵ One exception to the scarcity of research on this subject is Kurk Dorsey, “Compromising on Conservation: World War II and American Leadership in Whaling Diplomacy,” in Russell and Tucker, *Natural Enemy, Natural Ally*, 252–69.

and Europeans” might revert to ecologically destructive habits.⁶⁶ As the example of the SNAF in the Camargue shows, Humbert was not alone in advocating the protection of nature during wartime.

To galvanize its membership and to justify nature protection at a time when France’s present and future seemed so uncertain, the SNAF elevated nature protection to an act of patriotism. The society would secure France’s most important natural sites so that the country could benefit from them in peacetime. To accomplish this, the SNAF’s Central Council took charge of the reserves and reduced their management to “the essential” to preserve their “territorial integrity.” This presumably meant granting the surveillance and policing of the reserves a higher priority than scientific studies and new projects. According to Bressou, this strategy would ensure that when “peace arrives once again, the Société d’Acclimatation . . . will have succeeded in safeguarding some of [France’s] most precious natural treasures [and] will be able to usefully contribute to the restoration of our most beautiful and dear nation.”⁶⁷ Yet this undertaking was not easy. For apart from the Camargue, the organization had established reserves at Néouvielle in the Pyrenees (1935) and at Lauzanier in the Alps (1936). The precarious existence of these reserves was exacerbated by the limited resources of the SNAF, whose membership numbered only twenty-five hundred at the start of the twentieth century.⁶⁸

War created a multitude of problems for the SNAF. For a start, communications were disrupted between its Paris headquarters and its reserves.⁶⁹ Moreover, during the phony war, the Camargue reserve lost one of its guards to military mobilization, and Tallon was requisitioned to work in a factory (although he was eventually able to transfer back to the region). After defeat in 1940, however, the reserve was fully staffed again, even if there, as elsewhere in France, food was in short supply and fuel shortages hampered travel. Indeed, the reserve staff managed to receive a limited number of scientists and other visitors, as well as tag birds and establish new research stations.⁷⁰

Compared to the Lauzanier reserve (now part of the Mercantour National Park), the Camargue fared well early in the war. Lauzanier was totally occupied by Italian troops, who by denying SNAF personnel

⁶⁶ See H. Humbert, *La protection de la nature dans les territoires d’outre-mer pendant la guerre: Communication faite à l’Académie des sciences coloniales, 21 février 1940* (Paris, 1940), 7–8.

⁶⁷ Bressou, “Actes des réserves,” 37.

⁶⁸ See J.-P. Raffin and G. Ricou, “Le lien entre les scientifiques et les associations de protection de la nature: Approche historique,” in Cadoret, *Protection de la nature*, 64–65.

⁶⁹ See Bressou, “Actes des réserves,” 37.

⁷⁰ See “Actes de la réserve zoologique et botanique de Camargue,” no. 24, 1940–41, in *Conférences de la Société nationale d’acclimatation de France: Actes de réserves de la Société nationale d’acclimatation de France*, no. 24, 1940–41, 41–51.

access reportedly fostered poaching and damage to forest plantations.⁷¹ This foreign military occupation succeeded one by French troops in the late 1930s, when soldiers had used Lauzanier for target practice, causing “a grave threat to the tranquillity of the fauna.”⁷² Nor was the SNAF alone in protesting the military mobilization of the Alps in the late 1930s. In 1937 the naturalist and speleologist Gustave Boissière called for the creation of a national park, a site “free from all human intrusion,” in the Vercors, which was under threat from the military training.⁷³

The Camargue, however, soon faced a massive challenge from that most modern of war machines, the airplane. This was not a new threat. Just after World War I, Baroncelli had protested the French air force’s use of airspace above the Camargue. The noise and presence of the planes had disrupted the Camargue’s birdlife, including the flamingos that bred in the area. Baroncelli had demanded that “the responsible authorities give the most severe orders that such acts of savagery never again happen.”⁷⁴ During World War II the problems posed by planes returned with a vengeance.

That the Camargue was earmarked as a suitable location for aerial training is no surprise. As the minister for the French air force noted in 1938, training sites should be established in areas “of low population density and minor cultivation . . . as well as near the coast.” The Camargue fitted the bill perfectly, and during the 1939–40 combats the French air force carried out target practice over the wetlands.⁷⁵ This development threatened to prevent the surveillance of the reserve, as well as disperse its flamingos and other wildlife. However, the reserve was spared by the use of nonexplosive shots and the “unfortunate events of June 1940.”⁷⁶ Rapid military defeat saved the reserve.

⁷¹ See “Actes de la réserve du Lauzanier,” no. 5, 1940–41, in *Conférences de la Société nationale d’acclimatation de France: Actes de réserves de la Société nationale d’acclimatation de France*, no. 24, 1940–41, 84.

⁷² “Actes des réserves de la Société nationale d’acclimatation de France: Commission générale des réserves; Extraits du procès-verbal de la réunion du 9 décembre 1937,” in *Bulletin de la Société nationale d’acclimatation de France*, Jan.–Feb. 1938, 1.

⁷³ Gustave Boissière, “Un parc national dans le Vercors,” *La nature*, Dec. 15, 1937, 583–84.

⁷⁴ Quoted in Zaretsky, *Cock and Bull Stories*, 119. Zaretsky observes that “in light of the slaughter just ended in Europe such rhetoric seems misplaced” (119).

⁷⁵ Service Historique de l’Armée d’Air (hereafter SHAA), 2 B 153, Ministre de l’Air to Général Commandant la 1e Région Aérienne, Dijon; Général Commandant la 2e Région Aérienne, Paris; Général Commandant la 3e Région Aérienne, Tours; Général Commandant la 4e Région Aérienne, Aix-en-Provence; and Général Commandant la 5e Région Aérienne, Alger, “Recherche de champs de tir,” July 1, 1938; see also Clément Bressou, “Actes de la réserve zoologique et botanique de Camargue, no. 25, 1942–1947,” *La terre et la vie*, no. 2, special issue (1949): 43.

⁷⁶ “Actes de la réserve zoologique et botanique de Camargue, no. 24, 1940–1941,” in *Conférences de la Société nationale d’acclimatation de France: Actes de réserves de la Société nationale d’acclimatation de France pour 1940 et 1941*, included in *Société nationale d’acclimatation de France, Conférences*, Summer and Autumn 1941, Winter 1942, 42.

Yet aerial threats did not end there. From January 1941 on, French military authorities revived their plans to transform the Basse-Camargue into an aerial training zone.⁷⁷ Bressou protested that this decision ignored the reserve's "scientific interest" and threatened its "very existence," possibly leading to the "immediate, total, and definitive disappearance of the Camargue's original birdlife."⁷⁸ Nonetheless, there was some room for negotiation with the authorities, and the SNAF mobilized against the firing ground. A petition was sent to the minister for national defense, the minister for the air force, the minister for national education (who was responsible for protecting monuments and sites), the prefect of the Bouches-du-Rhône, and the head of the regional air force. In addition, Alais-Frogès-Camargue, the head of the Faculty of Sciences at the University of Marseille, the forestry conservator in Aix-en-Provence, and local associations joined the protests.⁷⁹

France's scientific community also mobilized itself, drawing attention to the reserve's scientific importance both nationally and internationally. A motion unanimously passed by the Assembly of Museum Professors on February 15, 1941, described the Basse-Camargue as "the most important of the rare natural reserves of our country," inasmuch as it sheltered unique species of birds and acted as a major center of scientific research. The assembly argued that the establishment of a firing ground would result in the "immediate destruction of the fauna and flora, which are strictly protected," and demanded that these plans "be abandoned."⁸⁰ This campaign met with some success, limiting the damage to the reserve.

However, it was not just the French air force that had designs on the Camargue. After occupying what had been the unoccupied zone in November 1942, the German air force singled out the wetlands for target practice. In August 1943 warnings were posted on the edge of the Vaccarès: "Aerial firing ground. Access to the lagoon prohibited. Danger of death." As if to underscore this warning, planes dropped bombs over the shoreline of the Mornès island.⁸¹ Tallon was extremely concerned about the German plans. Writing to the head of the Fac-

⁷⁷ After the British attacks against Mers el-Kébir and Dakar, the Armistice Commissions allowed the French air force to maintain a significant number of personnel and planes. In Dec. 1940 it boasted sixteen thousand men and 816 planes (289 of them based in metropolitan France). See Jean Doise and Maurice Vaïsse, *Politique étrangère de la France: Diplomatie et outil militaire, 1971-1991* (Paris, 1992), 442-43.

⁷⁸ Bressou, "Actes des réserves," 37-38.

⁷⁹ See *ibid.*, 38-39.

⁸⁰ Quoted *ibid.*, 39.

⁸¹ See Réserve Naturelle de la Camargue (hereafter RNC), Gabriel Tallon to Léo Kuyten, Sept. 21, 1943. The German air force also planned to create an "exercice terrain" for planes on the neighboring Crau plain. See Archives Municipales d'Arles (hereafter AMA), A H 247, Sous-Préfet d'Arles to Maire d'Arles, Apr. 13, 1943.

ulty of Sciences at the University of Marseille, he outlined the potential consequences, which included the disappearance of birdlife, the destruction of the Rièges wood, restricted access to the reserve, and the end of eel fishing in the Vaccarès (which would represent a loss for the reserve's income and local food supplies). Tallon expressed surprise at the German plans, as he had recently received a visit from a Doctor Panzer, director of the Danzig Museum, German army officer, and delegate from the German Office of the Protection of Nature who was charged with liaising with French nature reserves. Indeed, Panzer had come to the Camargue to see how the reserve could be protected from "the current circumstances."⁸²

It was not just the reserve that stood to suffer. Increased aerial bombing also meant trouble for the *gardiens* (cowherds) who grazed their livestock across the watery expanses of the Basse-Camargue. Allied aircraft already made their lives difficult. One cowherd remembers that after air raids over Arles, Allied planes dropped unused bombs over the Vaccarès to lighten their load on the flight back to base. Silt-filled craters created unpredictable terrain, and crossing the area became a "lottery."⁸³

The threat from the air stretched across the pre- and postliberation periods. Like the French and German air forces, U.S. military authorities established an aerial firing ground over the Camargue. In February 1945 Tallon reported that U.S. planes were targeting the tip of the Mornès (just as German planes had done), firing machine guns and dropping light bombs over a ten-square-kilometer area. He particularly feared that the Rièges wood, which lay within the firing ground and was the only surviving Phoenician juniper forest in France, would be destroyed and thereafter "fail to regenerate." In addition, the affected zone constituted the only unmined part of the Camargue. This meant that once target practice began, the reserve would effectively cease to function.⁸⁴ A month later Tallon confirmed that the bombing had been "disastrous for the reserve."⁸⁵ The U.S. air force's activities in the Camargue had reportedly already induced the flamingos to seek sanctuary elsewhere.⁸⁶

⁸² Archives Départementales des Bouches-du-Rhône (hereafter ADBDR), 76 W 128, Gabriel Tallon to Doyen de la Faculté des Sciences de Marseille, Sept. 23, 1943, 1. For more on fishing, see RNC, Gabriel Tallon to Alais-Froges-Camargue, Feb. 7, 1944.

⁸³ Quoted in Annelise Chevalier, *Le Bois des Rièges: Coeur de la Camargue, entre mythe et réalité, récits de gardiens, manadiers, pêcheurs et autre camarguais . . .* (Sommières, 2004), 84, 125.

⁸⁴ Centre des Archives Contemporaines des Archives Nationales (hereafter CACAN), 19771615/77, Gabriel Tallon, "Création d'un camp de bombardement pour les aviateurs américains en Basse-Camargue," Feb. 10, 1945.

⁸⁵ RNC, Gabriel Tallon to Monsieur Rossigneux, Chef du Contentieux, Alais-Froges-Camargue, Mar. 22, 1945.

⁸⁶ See CACAN, 19771615/77, Conservateur des Eaux et Forêts, Aix-en-Provence, to Direc-

The SNAF lobbied both German and U.S. military authorities to limit the effects of the target practice.⁸⁷ As in 1941, scientists and forestry officials joined the protests, demonstrating the reserve's reputation in France and (according to Bressou) overseas.⁸⁸ For several years already, appeals on behalf of the Camargue's renowned landscape had been an important weapon in the defense of the reserve. In late 1943 the minister for national education, at the urging of the head of the Faculty of Sciences at the University of Marseille, had asked German authorities to "respect the character of a site whose conservation possesses a general interest beyond the merely national."⁸⁹ Now, in early 1945, the forestry conservator in Aix-en-Provence assured Tallon that he would do "everything in [his] power" to help with the campaign against the U.S. air force's plans, although he admitted that "the game would be hard to win, as our allies find it hard to accept reclamations of this nature, [since] they believe that the end justifies the means."⁹⁰ Yet on both occasions, the SNAF's efforts met with some success as German and U.S. military authorities issued orders restricting the use of the Vaccarès. Consequently, the damage to the reserve was "less important than [the SNAF] had reason to fear."⁹¹

The attempts to protect the reserve against the devastating effects of aerial testing suggest that nature preservation remained a live issue during the war, when France's naturalists and scientists battled to save what they could of France's natural heritage. Furthermore, there was some room to maneuver with French, German, and U.S. military authorities on this matter. As in their attempt to limit agricultural modernization, the Camargue's defenders enjoyed some success in protecting the landscape against the destructiveness of modern warfare. However, they had less room to maneuver once the Germany military had incorporated the Camargue into its strategy for defending France against Allied attack.

teur Général des Eaux et Forêts, "Réserve de la Camargue, champ de tir aérien," Apr. 23, 1945. See also Etienne Gallet, *Les flamants roses de Camargue* (Lausanne, 1949), 124.

⁸⁷ Officials from the reserve wrote to a Professor Truger in Avignon and to the German air force commander at Istres but apparently failed to receive a reply from either. See Tallon to Doyen de la Faculté des Sciences, 1.

⁸⁸ See Bressou, "Actes de la réserve zoologique et botanique de Camargue, no. 25, 1942–1947," 44.

⁸⁹ ADBDR, 76 W 128, Ministre Secrétaire d'Etat à l'Education Nationale to Préfet Délégué des Bouches-du-Rhône, 3ème Division, 1er Bureau, "Bouches-du-Rhône—Etang de Vaccarès," Nov. 10, 1943.

⁹⁰ CACAN, 19771615/77, Conservateur des Eaux et Forêts, Aix-en-Provence, to Gabriel Tallon, Feb. 15, 1945. These protests need to be seen within the context of relations between France and the other Allied forces following French liberation. See Hilary Footitt, *War and Liberation in France: Living with the Liberators* (Basingstoke, 2004).

⁹¹ Bressou, "Actes de la réserve zoologique et botanique de Camargue, no. 25, 1942–1947," 44.

Fortifying the Camargue

The Camargue represented different things to different people. For some, it was a cradle of Provençal traditions. For others, it was an unparalleled nature reserve. For Vichy modernizers, it was a land of unrealized agricultural potential. For the German army, however, it was an area whose natural defenses needed strengthening. From November 1942 on, German military authorities laid barbed wire and more than three hundred thousand mines in the Basse-Camargue. These defenses were complemented by antitank devices, bunkers, turrets, and artillery posts throughout the lower Camargue, particularly along its coastline.⁹² The landmines undoubtedly caused problems for local communities. Saintes-Maries-de-la-Mer's population urgently wanted the mines removed after liberation, as they represented "a serious danger . . . and a major obstacle from the point of view of food supplies."⁹³ Mines and other defenses also hampered surveillance of the reserve, because they restricted the SNAF's access to its lower sections.⁹⁴ The mines caused further problems for the reserve once local fishermen, who could no longer fish freely in the Saintes-Maries-de-la-Mer region because of the risk, had requested the right to fish in the Vaccarès. Tallon (with memories of prewar legal disputes with hunters and fisherman fresh in his mind) resisted this move, citing the paucity of fish stocks and claiming that the request was merely a ploy for poachers to gain access to the coveted fish of the Vaccarès.⁹⁵

The impact of wartime fishing, hunting, and poaching on the reserve is worth considering in greater detail. Before the war, hunting was an important human pressure on the reserve, and the wartime prohibition on hunting with guns, as well as the German military presence, may have led to restrictions.⁹⁶ For instance, in 1949 the *Times's* special correspondent suggested that the mines had helped protect the

⁹² See *Ibid.*, 45; and Alain Chazette, "Les défenses allemandes en Camargue," 44–54. Unpublished article supplied by Eric Coulet, director of the Réserve Naturelle de la Camargue.

⁹³ ADBDR, 150 W 174, Sous-Préfet de l'Arrondissement d'Arles to Préfet des Bouches-du-Rhône, Sept. 29, 1944.

⁹⁴ See Bressou, "Actes de la réserve zoologique et botanique de Camargue, no. 25, 1942–1947," 45.

⁹⁵ See RNC, Tallon to Rossignieux. In the reserve's early years hunters and fishermen had contested its boundaries in the courts. See Caffarelli, "Histoire de la réserve," 58. An interwar visitor to the reserve had also pointed out that the local population had designs on the Camargue's waterfowl and "killed adult birds, collected eggs to make omelettes, and even [took] chicks to put in the fricassee" (A. Rochon-Duvigneaud, "Une visite à la réserve de Camargue: L'effort à faire pour son organisation," *Bulletin de la Société nationale d'acclimatation de France*, Aug. 1928, 113).

⁹⁶ Hunting during the occupation is an underresearched area. For instance, there is no index entry for "hunting" or "poaching" in Jackson, *France*. One exception to the dearth of scholarship in this area is H. R. Kedward, "La Résistance et la polyvalence de la chasse," in *La Résistance et les Européens du Sud*, ed. Jean-Marie Guillon and Robert Mencherini (Paris, 1999), 245–55.

Camargue's flamingos by limiting human interference with them.⁹⁷ Yet hunting did not stop in the Camargue between 1940 and 1944, any more than it did elsewhere in France. In the occupied zone, German authorities allowed the hunting of rabbits and boar (so-called nuisance animals). In the unoccupied zone, hunting was closed on November 24, 1942.⁹⁸ Before this date, Caziot allowed some rabbit hunting, and certain prefects authorized local authorities to organize boar hunts to protect precious crops.⁹⁹ In the face of such restrictions and food shortages, hunters, on whom Vichy had imposed a corporatist structure to encourage "discipline and solidarity," lobbied officials for the right to hunt.¹⁰⁰ Fishermen did the same, not only in the Vaccarès but elsewhere on the Rhône.¹⁰¹

But even if there were wartime restrictions on officially sanctioned hunting, it is likely that poaching increased rapidly during the war because of food shortages.¹⁰² This seems to have occurred in the Camargue. One resident of Saintes-Maries-de-la-Mer remembers bagging huge quantities of rabbits (up to thirty a day) despite the presence of mines.¹⁰³ Perhaps more significantly, German soldiers also helped themselves to the Camargue's fauna, according to one local cowherd.¹⁰⁴ In other words, the wartime balance sheet for hunting on the reserve remains murky. But it is clear that as the war progressed and the threat of an Allied invasion of France increased, the Camargue was drawn deeper into the totalizing momentum of modern warfare. German submersion plans threatened to radically transform the wetlands' environment, demonstrating that although the German authorities had an

⁹⁷ "A Trip to the Camargue: Main European Gateway for Migrant Birds," *Times*, May 28, 1949.

⁹⁸ See 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)*, 10 vols. (Paris, 1951), vol. 7, monograph P. A. 6, 23. In all, 715,000 hunting guns were handed over to German authorities in the occupied zone, and 1.2 million were deposited with French authorities in the unoccupied zone. The postwar Commission Consultative des Dommages et des Réparations accused German authorities of failing to control boar and other nuisance animals that caused crop damage.

⁹⁹ See ADBDR, 7 M 167, Pierre Caziot to Préfets, Sept. 26, 1940; ADAM, 88 W 14, *arrêté* of June 4, 1942.

¹⁰⁰ See Archives Départementales du Var, 1790 W 56, "Extrait du journal officiel du 30 juillet 1941: Loi no. 2673 du 28 juin 1941 relative à l'organisation de la Chasse."

¹⁰¹ See ADBDR, 188 W 105, Secrétaire Général, Amicale des Pêcheurs à la Ligne Alpes/Rhône, Mar. 27, 1941.

¹⁰² Robert Gildea argues that the intensity of poaching during the occupation was motivated by "survival" rather than by "sport" (*Marianne in Chains: In Search of the German Occupation of France, 1940-1945* [London, 2002], 148). The Commission Consultative des Dommages et des Réparations held that poaching reduced rabbit and partridge populations during the war. The situation of migratory birds, such as wood pigeon, apparently remained unchanged (*Dommages subis par la France*, vol. 7, 25).

¹⁰³ Interview with Pierre Sellier, Saintes-Maries-de-la-Mer, Apr. 16, 2006. Tapes and transcript in author's possession.

¹⁰⁴ Hubert Yonnet, quoted in Chevalier, *Bois des Rièges*, 101, 125.

officer, the aforementioned Doctor Panzer, to liaise with French nature reserves, military considerations overrode nature protection.

Plans to flood the Camargue to prevent Allied planes from landing during an invasion threatened both traditionalist and modernist aspirations for the Camargue as a refuge for wildlife or a productive agricultural center. A detailed Ponts et Chaussées report outlined how these plans would alter the Camargue's environment. They called for a gradual draining of higher fields and marshes into the Vaccarès, and ultimately into the sea, by means of pumping stations and canals. The lagoon levels needed to be kept low to facilitate drainage from higher ground and to maintain a table of saltwater low enough to permit crop cultivation. As high sea levels often corresponded with periods of high precipitation, gates in the sea dike would allow water out from the Vaccarès when sea conditions permitted. The strong mistral presented an additional danger when the lagoons were full, as it could cause water to surge over the sea dike, potentially destroying it, along with the valuable salt industries centered on Salin-de-Giraud.¹⁰⁵

To create the flood, German authorities envisaged blocking the gate of the sea dike, isolating the Vaccarès and causing its water level to rise by pumping an increased volume of water from the Rhône.¹⁰⁶ On February 14, 1944, German authorities requested that the regional prefect provoke the flooding of the Camargue (and the Vallée des Baux to the north) for "urgent military reasons."¹⁰⁷ Subsequently, the regional prefect informed Pierre Laval, the head of government, that he believed that the German authorities intended to maintain water levels at their winter average throughout the year, a situation that would prove difficult to control.¹⁰⁸

Unsurprisingly, this demand caused grave concern among French officials and the SNAF. Tallon believed that mixing fresh and salty water would "drastically alter all the biological conditions" of the reserve. He predicted that the Rièges wood and other vegetation would die out, that the reserve's buildings would be destroyed, and that its guards and visitors would be unable to carry out their tasks. As he had done in opposing aviation testing grounds, Tallon stressed the reserve's scientific and biological importance, known throughout the world "and

¹⁰⁵ See ADBDR, 76 W 128, Ingénieur des Ponts et Chaussées de l'Arrondissement d'Arles, "Note sur l'inondation de la Camargue ordonnée par les autorités allemandes d'occupation," Mar. 18, 1944.

¹⁰⁶ See ADBDR, 76 W 128, Ingénieur du Génie Rural to Directeur Général du Génie Rural et de l'Hydraulique Agricole, Mar. 21, 1944.

¹⁰⁷ ADBDR, 76 W 128, Major General Elster, Etat-Major Principal de Liaison 894, Marseille, Feb. 14, 1944.

¹⁰⁸ See ADBDR, 76 W 128, J. F. Bussière, Préfet de la Région de Marseille, to Pierre Laval, Chef du Gouvernement, Feb. 22, 1944.

notably in Germany.”¹⁰⁹ Similarly, the Bouches-du-Rhône’s architect for historical monuments argued that submerging the Vaccarès—indeed, introducing any change to the water system in the Camargue—would “lead to the destruction of this very interesting region.”¹¹⁰ These protests were apparently noted by the German authorities.¹¹¹

Local state officials feared that the flooding, moreover, would necessitate the evacuation of twelve thousand people from the Camargue, as well as submerge pastureland, destroy cultivated land, threaten cattle breeding, and damage salt production.¹¹² Officials responsible for the latter industry believed that the flooding would wash the salt pans’ contents out to sea, halting production and leading to the loss of 260,000 tons of salt stocks. They argued that this would damage German interests, as it would deprive the factories that supplied the occupier with products derived from saltwater (such as bromine).¹¹³

The region’s agriculture was also under threat, according to a local agricultural engineer. If the Camargue’s water levels were artificially maintained at winter levels, it would be impossible to cultivate crops and vines, rising salt levels would sterilize the soil, and swamps would turn into lagoons, meaning that they would cease to support cattle grazing. Furthermore, the engineer predicted that the Camargue risked outbreaks of malaria due to the increased number of lagoons. Meanwhile, in the Vallée des Baux, the Vichy regime’s recent twenty-million-franc investment in local agriculture would be wiped out.¹¹⁴

These concerns had little influence on the German authorities. From March 1 on, all functioning pumping stations on the Rhône were in action. Moreover, German units based at Saintes-Maries-de-la-Mer and Salin-de-Giraud took advantage of southeasterly winds to open gates on the sea dike, allowing seawater to flow into the Vaccarès. These actions, reported a state agricultural engineer, threatened to wreck agricultural interests as well as to submerge the salt pans at Salin-de-Giraud. Thereafter the German authorities seem to have bowed to

¹⁰⁹ ADBDR, 76 W 128, “Rapport de G. Tallon sur les répercussions du projet de ce territoire,” Feb. 25, 1944.

¹¹⁰ ADBDR, 76 W 128, Architecte Départemental des Monuments Historiques, “Projet de submission partielle de la Camargue et de la vallée des Baux,” Feb. 25, 1944.

¹¹¹ See ADBDR, 76 W 128, E. Freiherr von Spiegel, Consul Général d’Allemagne, Marseille, to J. F. Bussière, Préfet Régional de la Région de Marseille, Mar. 11, 1944.

¹¹² See ADBDR, 76 W 128, Sous-Préfet de l’Arrondissement d’Arles to Préfet des Bouches-du-Rhône, “Submersions dans la région d’Arles,” Feb. 22, 1944; and ADBDR, 76 W 128, G. Moyen, Cabinet du Préfet de la Région de Marseille, Feb. 22, 1944.

¹¹³ See ADBDR, 76 W 128, Tivolle, Inspecteur Général de la Production Industrielle, Fleury, Ingénieur en Chef des Industries Chimiques, Bureau, Ingénieur en Chef des Mines, “Note urgente sur les répercussions probables de l’inondation de la Camargue et de la Vallée des Baux,” Feb. 21, 1944.

¹¹⁴ See ADBDR, 76 W 128, Ingénieur en Chef du Génie Rural, Marseille, “Rapport,” Feb. 22, 1944.

French protests, allowing dike gates to be opened when the mistral blew to lower the level of the Vaccarès.¹¹⁵

Yet by March 20 pumping from the Rhône had driven water levels in the marshes and fields of the upper Camargue above their winter average—high enough to threaten livestock, which had to be removed, and other agricultural interests. The Basse-Camargue was more secure, for the moment, because there were fewer pumping stations there and because the sandy terrain near Saintes-Maries-de-la-Mer absorbed water at a high rate. However, one state agricultural engineer cautioned that if the water level of the Vaccarès rose any farther, the sea dike might be overwhelmed.¹¹⁶ The local state agricultural engineer urged the subprefect of Arles to advise German authorities that water levels had already gone beyond a safe level.¹¹⁷ As these reports indicate, the radical transformation of the Camargue's environment seemed imminent.

Thwarting the Flood

The environment was not a passive backdrop to the Camargue's war-time history, for human and nonhuman agents (the mistral and other weather conditions) combined to undermine the plans to flood the region. Alongside the more apocalyptic predictions for the Camargue's future, one Ponts et Chaussées engineer had highlighted on March 18 how the lack of fuel and lubricants for the pumping stations was already showing signs of hindering the German submersion plans (for which more than 8 tons of coal, 450 liters of diesel, and 25 liters of oil were needed daily).¹¹⁸ During the end of March and the beginning of April, these shortages became more pronounced and augmented the drying effect of the mistral. On April 7 the head engineer of the Agricultural Engineering Administration noted that due to the strong mistral blowing across the Camargue since the end of March and the poor functioning of pumping stations, the "situation was no longer of an alarming character."¹¹⁹ A month later the flooding remained in check.¹²⁰

Although the German authorities finally managed to secure extra fuel for the pumping stations, the local Ponts et Chaussées engineer

¹¹⁵ See Ingénieur du Génie Rural to Directeur Général du Génie Rural.

¹¹⁶ See *ibid.*

¹¹⁷ See ADBDR, 76 W 128, J. Arrighi de Casanova, Ingénieur du Génie Rural, to Sous-Préfet de l'Arrondissement d'Arles, Mar. 22, 1944.

¹¹⁸ ADBDR, 76 W 128, Caillol, Ingénieur des Ponts et Chaussées de l'Arrondissement d'Arles, "Rapport: Inondation de la région d'Arles et du Sud-Est du département du Gard," Mar. 18, 1944, 1.

¹¹⁹ ADBDR, 76 W 128, Reynaud, Ingénieur en Chef du Génie Rural to Préfet des Bouches-du-Rhône, Apr. 7, 1944.

¹²⁰ See ADBDR, 76 W 128, Arrighi de Casanova, Ingénieur du Génie Rural, "Situation au 10 mai 1944 des inondations stratégiques provoquées par les autorités militaires allemandes dans la région arlesienne."

noted at the end of May that there was “nothing particular to signal,” for “intense evaporation” during the hot weather had held the water levels in the lagoons “as low as possible,” and the Saliers, Grand Mer, and Pont de Rousty marshes were “*constantly retreating*.”¹²¹ In June the frustrated German command blocked drainage canals to compartmentalize the Camargue’s water levels by altitude and so, they hoped, cause flooding in higher areas to spill over into the Basse-Camargue.¹²² Again, these measures had “no effect” because of the extreme heat, dryness, and evaporation.¹²³ Through human and nonhuman agents, therefore, the Camargue survived the submersion measures. In northern France, by contrast, German authorities “completely submerged” eighteen thousand hectares in an attempt to thwart the Allied invasion, compounding the damage caused by flooding around the Allied evacuation site at Dunkirk in 1940.¹²⁴

That the thrust of Operation Anvil-Dragoon (the Allied invasion of Provence in August 1944) disembarked farther east than planned on the Var coastline further limited war damage in the Camargue. Bressou therefore could say that “the war has passed over the . . . reserve without damaging it too much.”¹²⁵ Visitors in the postwar era also noted little change. In 1947 the British naturalist G. K. Yeates reported for *Country Life* that “to the physical appearance of the Camargue ten years have brought no change, despite the war and the occupation of the area by French, German, and Allied troops in turn.” Any changes to bird populations, he believed, had more to do with natural conditions, such as drought, than with the war.¹²⁶ To readers of the *Ibis* a year later, Yeates again noted that “the war has left few scars on the Camargue,” even if uncleared landmines had made bird-watching “decidedly unhealthy and dangerous” in some areas.¹²⁷ (This is perhaps not surprising, as the

¹²¹ ADBDR, 76 W 128, Caillol, Ingénieur des Ponts et Chaussées de l’Arrondissement d’Arles, “Rapport,” May 30, 1944.

¹²² See ADBDR, 76 W 128, Caillol, Ingénieur des Ponts et Chaussées de l’Arrondissement d’Arles, “Rapport,” June 20, 1944.

¹²³ Officials feared, however, that heavy rain might change the situation. See ADBDR, 188 W 19, Ingénieur en Chef du Génie Rural to Préfet des Bouches-du-Rhône, “Situation au 25 juin 1944 des inondations stratégiques provoquées par les autorités allemandes dans la région arlesienne,” June 30, 1944; ADBDR, 76 W 128, Caillol, Ingénieur des Ponts et Chaussées de l’Arrondissement d’Arles, “Rapport,” July 4, 1944; and ADBDR, 76 W 128, Caillol, Ingénieur des Ponts et Chaussées de l’Arrondissement d’Arles, “Rapport,” July 31, 1944.

¹²⁴ Commission Consultative, *Domages subis par la France*, vol. 1, 219. In all, military installations and aerodromes, as well as floods provoked for defensive purposes, had rendered 304,114 hectares unusable. See Vergeot and Aubé, *Rapport sur le problème agricole français: Données et solutions* (Paris, 1944), 50.

¹²⁵ Bressou, “Actes de la réserve zoologique et botanique de Camargue, no. 25, 1942–1947,” 46.

¹²⁶ G. K. Yeates, “The Camargue Re-visited,” *Country Life*, Sept. 5, 1947, 474.

¹²⁷ G. K. Yeates, “Some Supplementary Notes on the Birds of the Rhône Delta,” *Ibis*, July 1948, 426. A 1977 bird-watching guide to the Camargue presented a similar view: “With the return

Bouches-du-Rhône had been the most heavily mined *département*).¹²⁸ In a similar vein, Etienne Gallet's 1949 guide to the Camargue's flamingos made little mention of the war's influence on the reserve (apart from the disruption to the birds' nesting in 1944 due to increased aviation activity). Gallet described the Camargue as a mysterious "desert of salt" and a landscape of "special charm," especially in those places where nature had been left to itself and "humanity had not yet introduced its miserable civilization."¹²⁹ This view of the Camargue would not have been out of place in prewar descriptions of the wetlands.

Gallet's comments indicate that for some postwar observers the Camargue continued to fulfill its role as a site of tradition and virginal nature free from the trappings of modernity. Yet the Camargue's landscape had been the outcome of centuries of interlocking human and natural histories. The war had been the latest episode in this history, and as such it had no place in the Camargue-as-wilderness narrative. It is hardly unsurprising, therefore, that observers ignored that the wetlands had emerged from the war largely unscathed due to the combination of human and nonhuman factors.

Conclusion

It is striking that so few traces of the war exist in the contemporary Camargue landscape. Notable exceptions include the memorial to the Saliers internment camp (inaugurated in February 2006), where Vichy had held about seven hundred Roma between 1942 and 1944, and the remains of German bunkers and other defenses on the shoreline (fig. 1).¹³⁰

At least one local remembers the German submersion plan, but his account may well be an isolated case.¹³¹ That is not to say that the Camargue's wartime environmental history lost all relevance after 1944. Salt extraction remained an important industry in the area, and traces of the Camargue's wartime history were replayed in postwar France. In the 1960s sonic booms caused by high-speed fighter jets disturbed the reserve's birdlife, and a petition was apparently sent in protest to the French government.¹³² After 1945 protests accompanied the establish-

of peace in the summer of 1945, there were still few apparent changes to either scenery or way of life" (M. Shepherd, *Let's Look at the Camargue: An "Ornitholidays" Guide* [Bognor Regis, 1977], 21).

¹²⁸ For an overview of French land-mine clearance operations, see Danièle Voldman, *Le déminage de France après 1945* (Paris, 1998).

¹²⁹ Gallet, *Flamants*, 11–12, 124.

¹³⁰ For the history of Saliers, see Mathieu Pernot, *Un camp pour les bohémiens: Mémoires du camp d'internement pour nomades de Saliers* (Arles, 2001). For reflections on the German bunkers that littered the French coastline after World War II, see Paul Virilio, *Bunker Archeology*, trans. George Collins (New York, 1994).

¹³¹ Interview with Sellier.

¹³² See Monica Krippner, *Discovering the Camargue* (London, 1960), 61.



Figure 1 Remains of German military defenses in the Réserve Nationale de Camargue near the Phare de la Gacholle (March 2005). © Chris Pearson

ment of an aerodrome at Méjanès and the erection of an antenna on the sea dike during the Algerian war of independence.¹³³ But agricultural modernization and marsh drainage projects have perhaps driven more sustained challenges to the Camargue's defenders. About ten years after Vichy technocrats proposed draining lagoons and marshes, Ponts et Chaussées officials felt obliged to issue reminders that "the interests of the Camargue's zoological and botanical reserve demand a sufficient level of water in the lagoons."¹³⁴ Yet agricultural developments and nature conservation are not necessarily mutually exclusive. The rice plantations reintroduced in postdefeat France now occupy twelve thousand hectares in the Camargue, and, ironically, the Parc Naturel Régional de la Camargue (Camargue Regional Nature Park) considers them an essential actor in the maintenance of the ecosystem; water pumped from the Rhône for rice production irrigates the surrounding land.¹³⁵

¹³³ See Caffarelli, "Histoire de la réserve," 59.

¹³⁴ ADBDR, 188 W 21 Dayre, Ingénieur des TPE, Ponts de Chaussées, Département des Bouches-du-Rhône, Service de Navigation Rhône-Saône, "Rapport de subdivisionnaire," Aug. 8, 1952. See also Blondel and Hoffmann, "Originalité et le rôle," 14.

¹³⁵ "Natura 2000 en Camargue: Une place privilégiée pour la riziculture et l'élevage extensif!" *Bulletin d'information du Parc naturel régional de Camargue*, Nov. 2005.

For despite the upheavals of the 1940–44 period, continuities in the region's environmental history transcend the "dark years," just as they do in its political, social, and cultural histories.¹³⁶ In particular, the SNAF's dedication to its long-term goals demonstrates that nature protection was not put on hold during the years of war and occupation. The reserve itself, which continues to exist under the management of the Société Nationale de Protection de la Nature (which succeeded the SNAF in 1960), became a biosphere reserve in 1977 under UNESCO's MAB (Man and Biosphere) program.¹³⁷ Furthermore, the reserve is one of metropolitan France's 143 natural reserves, a category of protected sites that proliferated rapidly in the postwar period.¹³⁸

The wartime militarization of the Camargue's environment also needs to be situated in the context of French environmental, military, and social history. Since 1945 ecologists and nature protection societies have continued to oppose the militarization of nature reserves, national parks, and other valued landscapes. In the immediate postwar period, the SNAF was kept informed of the Société des Amis de la Forêt's campaign against the War Ministry's plans to create a new military school in Fontainebleau forest.¹³⁹ Furthermore, in the 1960s Bressou was made honorary president of the Comité des Parcs Naturels du Haut-Var, an organization that vigorously opposed the creation of the thirty-five-thousand-hectare Canjuers military base on the sparsely populated land north of Draguignan.¹⁴⁰ In the 1970s ecologists joined farmers, trade unionists, pacifists, and others to oppose the extension of Larzac camp in the Aveyron.¹⁴¹ In many ways the SNAF's wartime

¹³⁶ Paxton's *Vichy France* laid bare the continuities between the Vichy regime and the Third and Fourth Republics. See also Karen Adler, *Jews and Gender in Liberation France* (Cambridge, 2003); Jean-Louis Gay-Lescot, *Sport et éducation sous Vichy, 1940–1944* (Lyon, 1991); Daniel Gordon, "The Back Door of the Nation State: Expulsions of Foreigners and Continuity in Twentieth-Century France," *Past and Present*, no. 186 (2005): 201–32; and Gérard Noiriel, *Les origines républicaines de Vichy* (Paris, 1999).

¹³⁷ See the UNESCO-MAB Biosphere Reserves Directory, www.unesco.org/mabdb/br/brdir/directory/biores.asp?mode=all&code=FRA+03 (accessed Aug. 29, 2008). The reserve is also part of the Parc Naturel Régional de la Camargue (of which the Société Nationale de Protection de la Nature was a founding member). The reserve's Web site can be accessed at www.reserve-camargue.org.

¹³⁸ See Réserves Naturelles de France, "Aujourd'hui, la terre de demain," undated leaflet.

¹³⁹ See Centre Historique des Archives Nationales, Paris, 207 AP/177, "Communication de M. Plon, Secrétaire Général de la Société des Amis de la Forêt, Rapporteur de la Commission Consultative des Réserves Artistiques et Biologiques de la Forêt de Fontainebleau to Section de Protection de la Nature de la Société Nationale d'Acclimatation de Paris, 'L'Ecole Militaire "Toutes Armes" de Fontainebleau,'" Dec. 17, 1945. The Société des Amis de la Forêt was founded in 1907 with the aim of preserving Fontainebleau forest.

¹⁴⁰ See Archives Municipales de Comps-sur-Artuby (Var), 1 W 4/2, "Lettre ouverte du Comité des Parcs Naturels du Haut-Var aux Notabilités du Var," [1973?].

¹⁴¹ Much has been written on the Larzac struggle. For a succinct account, see Alexander Alland with Sonia Alland, *Crisis and Commitment: The Life History of a French Social Movement* (Yverdon, 1994).

activities anticipated these protests. In a surprising twist, however, the Ministry of Defense now lauds its environmental credentials. Not least, it works *with* ecologists to create and manage protected habitats on military bases, and the French air force has launched a sustainable development plan.¹⁴² The continuing relationship between militarization and landscape reinforces the need to integrate the Camargue's wartime history in the context of twentieth-century French environmental history.

The Camargue's wartime environmental history also speaks to questions of resistance, collaboration, and accommodation, even if the SNAF's nature preservation activities, motivated as they were by scientific concerns rather than by political ideology or personal self-interest or survival, do not fit neatly into any of these categories. Sometimes the SNAF successfully lobbied the Vichy regime, most notably securing the classification of the Basse-Camargue and an intervention against German authorities from the minister for national education. At other times it opposed Vichy's plans to modernize the Camargue's agriculture and the use of the Vaccarès as an aerial training ground. Likewise, the SNAF opposed German plans (as well as similar Allied plans) for an aerial training zone over the reserve and the Camargue submersion project, yet it welcomed the "possible application" of German nature conservation laws during the occupation.¹⁴³ It could be argued that at various points the SNAF's actions coincided with Vichy's desire to *sauver l'essentiel* (preserve what is essential) or that they were forms of accommodation or even resistance. But I am less interested in defining exactly where the SNAF lies on the resistance-collaboration scale than in joining historians, such as Lynne Taylor, who question the appropriateness of these labels.¹⁴⁴

The wartime environmental history of the Camargue, then, lies between the polarities of resistance and collaboration, just as the intermingling of human and nonhuman agencies exposes deficiencies in the binary nature-culture model that rests on a radical separation between these spheres.¹⁴⁵ The region's environmental history also shows the

¹⁴² See Laurent Mignaux, DIREN Champagne-Ardenne, "Natura 2000: laissez-passer!" e-mediat Web zine, Apr. 5, 2005, Ministère de l'Écologie et du Développement Durable, www.ecologie.gouv.fr/emediat/article.php?id_article=88 (accessed Oct. 20, 2008); and Elodie Bonin-Laurent, "Le plan d'action environnement de l'armée de l'air," Centre d'Études Stratégiques Aérospatiales, www.cesa.air.defense.gouv.fr/article.php?id_article=388 (accessed Oct. 20, 2008). For a critical analysis of military environmentalism, see Rachel Woodward, *Military Geographies* (Oxford, 2004).

¹⁴³ A. Feuillée-Billot, "Quelques observations sur les oiseaux pendant la guerre," *Société nationale d'acclimatation: Conférences* (1943): 166–67. On nature protection in Nazi Germany, see Frank Uekoetter, *The Green and the Brown: A History of Conservation in Nazi Germany* (New York, 2006).

¹⁴⁴ See Taylor, *Between Resistance and Collaboration*.

¹⁴⁵ Whiteside argues that French political ecologists sidestep the separation of human and

importance of locating particular sites within a wider political and cultural context, as well as of showing how conflicting land use policies unfold in the landscape itself. Examining such sites also calls into question historiographical assumptions, such as the notion that Vichy's *retour à la terre* posturing targeted only fields and farmland. In sum, the Camargue's wartime environmental history indicates that much might be gained from more careful exploration of the natural-cultural histories of other marginalized sites in the French past.

nonhuman nature by concentrating on “*reciprocally problematizing* ‘nature’ and ‘humanity’ [rather] than by refining distinctions between them” (*Divided Natures*, 3).