

GERMAN HISTORICAL INSTITUTE, WASHINGTON, DC

BULLETIN

SUPPLEMENT 3

2006

FROM HEIMAT TO UMWELT: NEW PERSPECTIVES ON GERMAN ENVIRONMENTAL HISTORY

Introduction <i>Frank Zelko</i>	1
CONTRIBUTORS	
Environmental Protest in Wilhelmine Berlin: The Campaign to Save the Grunewald <i>Jeffrey K. Wilson</i>	9
Nature Conservation in the Age of Classical Modernity: The Landesausschuss für Naturpflege and the Bund Naturschutz in Bavaria, 1905-1933 <i>Richard Hözl</i>	27
The World According to Harro: Mentalities, Politics and Social Relations in an Early Modern Coastal Society <i>Marie Luisa Allemeyer</i>	53
Urban Needs and Changing Environments: Regensburg's Wood Supply from the Early Modern Period to Industrialization <i>Martin Knoll</i>	77
Nature as a Scarce Consumer Commodity: Vacationing in Communist East Germany <i>Scott Moranda</i>	103
German Colonialism and the Beginnings of International Wildlife Preservation in Africa <i>Bernhard Gifßbl</i>	121
Did They Know What They Were Doing? An Argument for a Knowledge-Based Approach to the Environmental History of Twentieth-Century Agriculture <i>Frank Uekötter</i>	145

INTRODUCTION

Frank Zelko

Germans, like the people of most nations, have a shared view of their past which owes as much to mythology as history. At its most basic level—that of, say, everyday conversation or tabloid journalism—this view of a nation’s past is distilled into a series of clichés which explain the national character in a way that resonates with both natives and foreigners. One such cliché holds that Germans are frequently slow to embrace various ideas and developments that occur in other “modern” nations, but once they finally do, they approach them with ferocious energy and unparalleled discipline and organization, qualities which are among the most resonant of German traits. The industrial revolution is frequently viewed through this lens, as is the eventual embrace of parliamentary democracy. The fact that such clichés rarely withstand historical scrutiny is largely beside the point; like religion, they are immune to scholarly falsification.

Environmentalism occupies a similar place in the popular mythology of the Bundesrepublik: Germany was slow to get on board, but once it did, it took environmental reform further—and practiced it better—than other nations. The history of the German branch of Greenpeace, the nation’s most successful and visible environmental organization, confirms this view. The German group emerged only after Greenpeace had already established itself in North America and Western Europe, but within a decade it became the largest and most powerful Greenpeace group in the world. This *Sonderweg* view of German environmentalism, however, ignores a long tradition of *Naturschutz* and *Landschaftspflege*, not to mention the environmental proclivities of National Socialism, however problematic they may have been.

Environmental history, which has been well established in the United States for the past three decades, also seems to fit the latecomer cliché. Initially, the discipline appeared to make little headway in Germany, but it is now beginning to thrive, as the essays in this volume demonstrate.¹ In the case of environmental history, however, the field’s relatively slow scholarly development is indeed the result of some very particular aspects of German history. Ironically, German scholars were among the first to write historical narratives that incorporated human interaction with various landscapes. To the historically informed, this should come as no great surprise. After all, in the nineteenth century German scientists such as Ernst Haeckel were pioneers in ecology, while scholars such as Alexander von Humboldt and Carl Ritter helped give birth to the modern discipline of geography. Wilhelm Heinrich Riehl blended ecology and

geography with history and anthropology in his multi-volume and monumental *Naturgeschichte des deutschen Volkes als Grundlage einer deutschen Socialpolitik* (1851–1869). After the First World War, a group of historians influenced by Riehl's work established a school of *Volksgeschichte* in which regional cultures were inextricably intertwined with their landscapes and ecologies.²

Volksgeschichte's focus on human interaction with the landscape, which bore some resemblance (though also some significant differences) to the work of the Annales School in France, was part of an important development in twentieth-century historiography. Nevertheless, the *Volksgeschichte* of the prewar era has been irreparably tainted by its association with Nazi ideology. Rather than simply describing and analyzing the history of various environments and the people that dwelt in them, some of these scholars advocated the creation of certain types of landscapes—ones that were orderly, fruitful, in short, “civilized”—and insisted that only Teutonic people were capable of converting wild forests and malarial marshes into productive and aesthetically pleasing landscapes. Slavs, Jews and other “inferior” races were incapable of carrying out this vital work, and their removal was seen as a necessary part of the project of landscape civilization.³ Such views obviously served Nazi ideology very well, and as a result historical scholarship that discusses the interaction between German culture and the German environment has understandably been viewed with suspicion in the postwar era. As David Blackbourn has recently noted, while a title such as *Rooted in the Land* is completely unproblematic in an American context, in Germany it would risk conjuring taboo concepts such as *Lebensraum* and *Blut und Boden*.⁴

Despite the recent trend toward a “normalization” of German nationalism, particularly during the World Cup this past summer, the Nazi era continues to loom over postwar German historiography like a massive, barely dormant volcano, and environmental history also lies in its shadow. Furthermore, the conflation of environmentalism with Nazism has spilled over Germany's borders and is occasionally used as a cudgel against late twentieth- and early twenty-first century green politics and social movements. Both radical scholars, such as Peter Staudenmaier and Janet Biehl, as well as conservatives such as Anna Bramwell, construct a sinister narrative in which the agrarian romanticism of Riehl and his contemporaries, with its xenophobic nationalism and antipathy toward industrialization, led directly to the *völkisch* movements of the early twentieth century and the Nazis' putative commitment to the preservation of “authentic” German landscapes. Modern-day environmentalism, such writers warn, retains significant vestiges of this tradition and exhibits latent “ecofascist” tendencies.⁵ The implications for environmental historians are clear: any study of the way Germans have interacted with their

environment in the past risks being accused of the *völkisch* heresy, while histories of environmental ideas and movements must conform to a declensionist narrative in which *Naturschutz* becomes hitched to National Socialism, thereby promulgating the culturally deracinated landscapes of Nazi utopia.⁶

Despite such potential accusations, an ever-growing number of German historians have begun once again to focus on people's interaction with their environment throughout history. Most of them are hyper-aware of the potential problems the new discipline may encounter as it bumps up against the ever-present process of *Vergangenheitsbewältigung*. But many would also agree with Blackbourn's sentiments (though they are probably grateful that the words come from a British academic based at Harvard): "It is really time that we stopped letting National Socialism dictate who we read and how we read them." Why should German historians, Blackbourn asks, shun Riehl's work "because what he wrote resonated with some National Socialists some seventy years after he wrote it?"⁷

The shadow of the past is not the only factor that has held German environmental history back. The fact that some of the field's earlier texts were closely associated with *Naturwissenschaften* and scientific positivism was also a concern for historians who were oriented toward cultural theory and studies of mentalité.⁸ The conservatism of the German academic system, with its rigid demarcations between sub-disciplines, also discouraged historians from departing from the more established historical traditions and identifying themselves as environmental historians. The contributors to this volume have grappled with these dilemmas to various degrees and their work reflects the more nuanced approach to German environmental history that has characterized the discipline in recent years. They recognize, for example, that while some aspects of *Naturschutz* and *Landschaftspflege* dovetailed with Nazi ideology, they also bear other historical characteristics which do not fit the declensionist narrative. Jeffrey Wilson's careful examination of the efforts to preserve Berlin's Grunewald at the turn of the last century, for instance, demonstrates that preservationists were not merely knee-jerk reactionaries steeped in German romanticism. Rather, they were reformers who thought seriously about how to deal with the less salutary consequences of modernization. Richard Hözl comes to a similar conclusion in his study of early twentieth-century *Naturschutz* in Bavaria, discerning a significant number of progressive tendencies in organizations which had previously been dismissed as agrarian romantics. Like their counterparts in Berlin, or for that matter, in the United States, Bavarian nature protection organizations sought "an alternative, more sustainable and careful path to modernization."

At first glance, a study of seventeenth-century North Frisian communities along the windswept west coast of Schleswig-Holstein would appear to lie beyond the contentious historiographical terrain described above. However, as Marie Luisa Allemeyer points out, the long-held popular image of North Frisians as heroic marsh dwellers fighting a constant battle against the encroaching sea was used by the National Socialists as a metaphor for the German people's battle against racial "contamination." Allemeyer is interested in exploring how ordinary North Frisians thought about and interacted with their environment. Drawing on a rich source of archival materials that are rarely available to social historians of the early modern era, she delves deeply into the minds of her dike-building subjects, in the process teasing out the meaning they invested in the natural world around them and how this in turn affected their interaction with their coastal environment. Through this approach, Allemeyer breaks down the simplistic dichotomy that pits the marsh dwellers against the sea and offers a more complex version of their environmental worldview.

Martin Knoll's study of Regensburg and its hinterland during the eighteenth and nineteenth centuries takes us into the heart of one of Germany's archetypal landscapes: the verdant forests of subalpine Bavaria. In Knoll's hands, the landscape that in earlier times inspired so much romantic longing and Teutonic mythology becomes merely another place where humans have attempted to balance resource extraction and conservation. Following in the steps of scholars such as William Cronon, Knoll dispassionately examines the interaction between the city and its hinterland, focusing on Regensburg's efforts to secure supplies of wood from the surrounding forest just as the burgeoning industrial revolution began to foster intensive competition for natural resources.⁹ The pressure on the regional environment, and the political, economic and social changes that accompanied it, are set against the backdrop of broader cultural and intellectual changes in which Europeans began to adopt an increasingly utilitarian attitude toward nature. Scott Moranda's article also deals with the commodification of nature, though with a twist. Moranda focuses on the way citizens of the German Democratic Republic experienced nature through recreation. His case study of the Erzgebirge region of southern Saxony demonstrates that East Germans came to view recreational facilities such as reservoirs and forestland as consumer goods, and the inability of the state to provide the population with satisfactory "nature experiences" was assimilated into the broader critique targeting communism's failure to provide people with sufficient amenities.

Bernhard Gißbl's contribution takes us well beyond the borders of Germany and into the East African colonies, vestiges of Germany's rela-

tively limited role in the scramble for Africa. His study points to the links between German conservation policies in Africa and those of other imperial powers, particularly Great Britain. Such imperial conservation efforts, Gißobl argues, were among the first to promote wildlife conservation at an international level, foreshadowing later cooperative efforts such as the International Whaling Commission and the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES). Nevertheless, German conservation efforts constituted a form of imperialism that imposed certain values, such as the German hunting ethos, upon local indigenous people, thereby disrupting or destroying their traditional hunting and farming lifestyle. As Gißobl puts it, Africans "experienced imperial environmentalism as a form of environmental imperialism."

In his study of twentieth-century German agriculture, Frank Uekötter analyses the impact that industrial technology has had on farmers. The use of increasingly sophisticated heavy machinery, soil analysis, agricultural software and chemical fertilizers and pesticides has encouraged a transfer of knowledge from farmers to agricultural advisors. These new "experts" act as professional interlocutors between farmers and the scientists and engineers they increasingly depend upon. Despite the fact that Uekötter answers the question in his essay title with an emphatic "no!", he does not feel any "nostalgia for besieged indigenous knowledge." His goal is instead to understand: "Who is the expert, since when, and for what reason?" Thus Uekötter seeks to write an environmental history that questions a common discourse pitting science and progress against traditional knowledge and environmentalism.

The essays in this volume were originally presented at the 2004 Young Scholars Forum held at the German Historical Institute in Washington DC. With the generous support of the Friends of the German Historical Institute, the forum provided emerging scholars with the opportunity to discuss their work with some of the most distinguished environmental historians in Europe and the United States. The forum emphasized the following themes: the environmental consequences of industrialization and agriculture; changing ideas about nature from the standpoint of cultural and intellectual history; and the history of environmentalism, including movements originating in government agencies, activist groups and other organizations. The presentations ranged across geographical and disciplinary boundaries. In addition to papers that dealt solely with Germany, the forum also heard from scholars working on the United States, Israel, Russia, Africa, France and the United Kingdom.¹⁰ For the sake of thematic consistency, the seven essays eventually chosen for publication dealt primarily with Germany.

In addition to the forum's participants, I would like to thank those who contributed considerable time and energy to its realization. The forum was conceived by GHI director Christof Mauch, who was also an enthusiastic moderator and participant. Charles Closmann, now at the University of North Florida, put a tremendous amount of effort into co-organizing the event, while the administrative and organizational skills of Christa Brown and Bärbel Thomas of the GHI were, as always, indispensable. Andrea Humphreys, a doctoral candidate at the University of Queensland, put her PhD dissertation aside for several weeks while editing the articles, and her stellar efforts were appreciated by all concerned, as were those of Stephen Scala at the GHI, who took care of the nitty-gritty copy editing tasks. I would particularly like to thank the distinguished scholars who devoted four days of their busy lives to the forum, providing guidance, constructive criticism and the experience that stems from many decades of practicing environmental history. Verena Winiwarter from the University of Vienna, Joachim Radkau from the University of Bielefeld, John McNeill from Georgetown University and Donald Worster from the University of Kansas generously made themselves available from dawn to dusk. Their many insights and comments, as well as the broader influence of their scholarship, made the event an invaluable experience for all the participants, and the essays in this volume are clearly indebted to their work.

Notes

¹ For an overview of the state of environmental history throughout the world, see J. R. McNeill, "Observations on the Nature and Culture of Environmental History," *History and Theory* 42 (December 2003): 5–43. Recent studies in German environmental history include Christof Mauch, ed., *Nature in German History* (New York, 2004) and Thomas Zeller and Thomas Lekan, eds., *Germany's Nature: Cultural Landscapes and Environmental History* (New Brunswick, NJ, 2005).

² Willi Oberkrome, "Entwicklung und Varianten der deutschen Volksgeschichte (1900–1960)" in *Volksgeschichten im Europa der Zwischenkriegszeit*, ed. Manfred Hetting (Göttingen, 2003), 56–99.

³ The work of the historical geographer Martin Bürgener is a good example of this kind of landscape history. See David Blackbourn, *The Conquest of Nature: Water, Landscape and the Making of Modern Germany* (London, 2006), 240–249. For an overview of *Volksgeschichte*'s innovations in the 1920s, see Oberkrome, *Volksgeschichte: Methodische Innovation und völkische Ideologisierung in der deutschen Geschichtswissenschaft 1918–1945* (Göttingen, 1993), 56–99.

⁴ Blackbourn, *Conquest of Nature*, 17. The book referred to is William Vitek and Wes Jackson, *Rooted in the Land: Essays on Community and Place* (New Haven, 1996).

⁵ Peter Staudenmaier and Janet Biehl, *Ecofascism: Lessons from the German Experience* (Oakland, CA, 1996). Anna Bramwell, *Blood and Soil: Richard Walther Darré and Hitler's Green Party* (Abbotsbrook, UK, 1985). For refutations of Bramwell's argument, see Piers H. G. Stephens, "Blood, not Soil: Anna Bramwell and the Myth of 'Hitler's Green Party,'" *Organization and Environment* 9(3) (Autumn 2000): 267–94 and Frank Uekötter, "Natur- und Landschaftsschutz im Dritten Reich: Ein Literaturbericht," in Joachim Radkau and Frank Uekötter, eds., *Natur-*

schutz und Nationalsozialismus (Frankfurt, 2003), 459–461. In a bizarre speech to the Australian parliament, the conservative Australian senator George Brandis attacked the Australian Greens for their “Nazi tactics” and described them as having a National Socialist lineage dating back to the work of Wilhelm Heinrich Riehl. Interestingly, the speech relied heavily on Staudenmaier and Biehl’s work. For a transcript, see <http://www.smh.com.au/articles/2003/10/29/1067233222840.html>.

⁶ Undoubtedly, various strands of *Naturschutz* had a *völkisch* outlook and were easily assimilated into National Socialist ideology. However, as Raymond Dominick has pointed out, these strands have largely disappeared or been absorbed into various cryptofascist organizations. See Raymond H. Dominick III, *The Environmental Movement in Germany: Prophets and Pioneers, 1871–1971* (Bloomington; Indianapolis, 1992), 114.

⁷ Blackbourn, *Conquest of Nature*, 17. For a more balanced study of the connection between environmentalism and National Socialism see Franz-Josef Brüggemeier, Mark Cioc and Thomas Zeller, eds., *How Green were the Nazis?: Nature, Environment, and Nation in the Third Reich* (Athens, OH, 2006).

⁸ For example, see Christian Pfister, *Das Klima der Schweiz von 1525 -1860 und seine Bedeutung in der Geschichte von Bevölkerung und Landwirtschaft* (Bern, 1984) and Peter Brimblecombe and Christian Pfister, eds., *The Silent Countdown: Essays in European Environmental History* (New York, 1990), whose contributors stem largely from the natural sciences.

⁹ The model for this type of regional environmental history is Cronon’s *Nature’s Metropolis: Chicago and the Great West* (New York, 1992).

¹⁰ For a summary of the Forum, see Charles Closmann, “Young Scholars Forum 2004: Environment, Culture, Politics: Transatlantic Perspectives,” *GHI Bulletin* 35 (Fall 2004), which can be viewed at: <http://www.ghi-dc.org/bulletinF04/35.184.pdf>.

CONTRIBUTORS

MARIE LUISA ALLEMAYER is Coordinator of the International Max-Planck Research School (IMPRS) for the History and Transformation of Cultural and Political Values in Medieval and Modern Europe at the Max-Planck-Institut für Geschichte, Göttingen, Germany. Her dissertation "Kein Land ohne Deich . . ." Lebenswelten einer Küstengesellschaft in der Frühen Neuzeit" will be published this year.

BERNHARD GÖSSL is a research associate at the University of Mannheim. He is currently working on a PhD dissertation entitled "Germany's Imperial Game: Hunting, Wildlife Preservation and Popular Images of Africa In Imperial Germany."

RICHARD HÖLZL currently holds a research scholarship of the German Science Foundation (DFG) and is a member of the Graduate Research School of Interdisciplinary Environmental History at Göttingen University, where he is working on a PhD project entitled "Rural Life, Modern Statehood and Scientific Forestry. A History of Environmental Conflict in Nineteenth-Century Germany."

MARTIN KNOLL is assistant professor for early modern history at the University of Regensburg. He is currently working on a book on the representation of territory, city and environment in early modern topographical literature.

SCOTT MORANDA is assistant professor of history at the State University of New York at Cortland. He is currently revising his dissertation, "The Dream of a Therapeutic Regime: Nature Tourism in the German Democratic Republic, 1945–1978," for publication.

FRANK UEKÖTTER is Dilthey Fellow at the Research Institute of the Deutsches Museum in Munich, Germany, with a project on the history of agricultural knowledge in the twentieth century. His most recent book, *The Green and the Brown: A History of Conservation in Nazi Germany*, was published by Cambridge University Press in 2006.

JEFFREY K. WILSON is assistant professor for modern German and European history at the University of New Orleans. He is currently working on a book that examines the concept of "the German forest" and the ways this national idyll was mobilized by a variety of social and political groups to shape the German landscape.

FRANK ZELKO was a fellow in environmental history at the German Historical Institute, Washington DC, in 2003–04. From 2004–06 he was lecturer in history at the University of Queensland (Australia) before taking up his current position as assistant professor in environmental history at the University of Vermont. His work focuses on the history of environmentalism around the world and he is currently finishing a book on the history of Greenpeace.

ENVIRONMENTAL PROTEST IN WILHELMINE BERLIN: THE CAMPAIGN TO SAVE THE GRUNEWALD

Jeffrey K. Wilson

In the early part of the twentieth century, Berlin witnessed an ongoing struggle between the state and the metropolis over the future of the region's forests, especially the Grunewald. Between 1902 and 1914, as the city and its environs grew from roughly 2.7 to 3.7 million inhabitants, the state sought to capitalize on the climbing value of its properties near the capital. A broad range of Berliners responded to this threat with a campaign to save the surrounding forests. This battle to preserve the woods demonstrated the depth and strength of environmental action in this period. One collaborative study of German environmental politics bemoans the failures of early twentieth-century activists, complaining of their antimodernism, conservatism, timidity, lack of vision and inability to form broad coalitions.¹ While Berliners fighting for the preservation of the Grunewald may not have utilized the confrontational techniques of today's environmental activists, their efforts were far from romantic, diffident or fragmented. Along with Berlin's political leaders, the city's press and associational life rallied to save the woods, pressuring the government not to sell state forests for real estate development. This broad and sustained mobilization of public opinion, from about 1904 to 1914, put great pressure on the Prussian state to accede to their demands. By the First World War, the state had abandoned its plan to profit marvelously from its extensive wooded properties around Berlin, and instead transferred the forests to the capital at a small fraction of their real estate value. Although significant institutional barriers, primarily the Prussian three-class voting system, impeded the progress of Berliners' demands, they were not impervious.² The liberal urban establishment's efforts to preserve the Grunewald and other woodlands extended beyond the anemic efforts described by some historians; rather, the campaign to save the Grunewald presaged contemporary environmental endeavors.³

The Grunewald, a largely coniferous forest, stood on roughly four thousand hectares of sandy soil between Berlin's western suburbs and the broad stretch of the River Havel. Local princes had hunted there since at least 1543, and it remained a royal hunting ground until 1904, when Kaiser Wilhelm II withdrew his sport from the vicinity of Berlin. Hunting served as an important ritual of the court, and the imperial entourage marked Saint Hubertus Day (November 3, honoring the patron saint of the chase) with a colorful hunt in the Grunewald. The party, dressed in

the English style, would eat breakfast outdoors at the royal hunting lodge and then proceed on horseback in pursuit of forty wild boar released into the woods. Kaiser Wilhelm I continued to participate in the *Hubertusjagd* into the 1870s, despite his advanced age, along with about two hundred members of German high society. The whole affair captured the elegance and taste of the imperial court.⁴

Starting in the 1870s, however, curious city-dwellers marred this noble sport. One local author disdainfully referred to the “dense hordes [of] uninvited old Berliners” that followed the hunting party, complaining that the “rabble of the capital” (*Pöbel der Hauptstadt*) had transformed the *Hubertusjagd* into a rowdy “*Volksfest*.⁵ Prince Heinrich von Schönburg-Waldenburg described the tumult surrounding the *Hubertusjagd* in the 1880s, relating how “ten thousand Berliners of all calibers” gathered outside the hunting lodge to abuse the participants. While “especially well-known and popular riders were greeted with cheers,” those not so fortunate “were met with bad jokes” (*mit faulen Witzen bedacht wurden*). Indeed, almost every rider had some taunt shouted at him by the crowd; Schönburg-Waldenburg recalled that one could choose to either respond with a clever retort or, if things got rude, pretend not to have heard. Any rider showing signs of anger “made himself totally ridiculous” (*hätte sich unsterblich lächerlich gemacht*) in the eyes of the crowd. Schönburg-Waldenburg concluded that: “A kind of *Narrenfreiheit* was proclaimed for the Berliners.”⁶ By 1894, it took forty gendarmes and an army contingent to hold back the throng. A hiking-guide to the Grunewald complained that the authorities frequently had to close the Grunewald to the public due to “ever greater ill-mannered disturbances” on the part of Berliners.⁷ By 1900, the disruptive gatherings had begun to drive the Kaiser and his entourage from the forest altogether. As another guide to the Grunewald explained:

Unfortunately, a certain part of the public has earnestly tried to spoil the visits of the Kaiser and his guests in the Grunewald. These noble souls, who lack the organ to distinguish between a good time and blatant roughness, have finally brought it to a point where the Kaiser—who surely would have liked to have maintained the *Volksfest*—gave an order to remove the *Hubertusjagd* to a more distant reserve not easily reached by troublemakers.⁸

In the end, an expanding urban public managed to seize—at least during the *Hubertusfest*—the forest for itself. The celebration had also given many Berliners their first taste of the Grunewald, as one local journal reminisced.⁹ The forest thus was clearly becoming an important locus of popular recreation, and Berliners began to appropriate it for themselves.

But as Berlin expanded during the speculative boom of the early 1870s—the *Gründerjahre*—real estate developers also cast an expert eye

westwards to the wooded hills and chains of lakes that comprised the Grunewald. There, tycoons like Hamburg's J. A. W. von Carstenn envisioned profitable villa suburbs on the English model. Carstenn, among others, lobbied the state to sell him the land and to reinvest the proceeds in extending the city's infrastructure to the new suburbs.¹⁰ The state resisted these requests, citing two issues. The first was legal: all state forests were held as collateral for state debt, and the proceeds from their sale could only be applied to the debt, not public works. Second, cabinet ministers insisted on the importance of the Grunewald to the health of Berlin, citing its salubrious influence on the air and the opportunities it provided for recreation.¹¹ Prussian officials thus blocked private development and acknowledged the public's claim to the royal hunting ground in the early 1870s.

The state did not maintain this clear vision of the public good, however. As the largest single landholder in Berlin's environs, the Prussian Ministry of Agriculture—administrator of the state forests—demonstrated a keen desire to develop Berlin's suburbs. Furthermore, it displayed great acumen in handling its landholdings. Rather than unloading all its property in the *Gründerjahre*, the state slowly offered its property for sale, keeping prices high. Moreover, it held on to its land during recessions, seeking the most favorable conditions for sale.¹² But perhaps the most significant obstacle to the development of the Grunewald, as the ministers noted, was the fact that proceeds from such a sale would not flow into ministerial budgets, but would be applied to state debt. This, however, would change by the turn of the century.

Real estate developers were not the only Berliners to imagine the transformation of the Grunewald in the 1870s. The Countess Adelheid von Dohna-Poninski, concerned with the overcrowding of Berlin's workers in the city's notorious tenement houses (*Mietskasernen*), called for greater public access to the forests around the city. In 1874, Dohna-Poninski issued a pamphlet proposing to limit the expansion of the city and to preserve green spaces for public use. Fearing Bismarck's political repression of working-class dissent would provoke revolution, she insisted "that the right of every inhabitant to reach open space within a half hour from home not be injured." This required parks within two kilometers of any point in the city, including a great "green ring of the metropolis," where "the entire population, with all of its classes," could come together to enjoy all manner of "recreational sites in the outdoors, including kitchen gardens, suited to their various natural needs."¹³ For her, the forest would serve as a means to improve the quality of workers' lives during the tortuous processes of industrialization and urbanization.

Despite the fact that Berlin's overcrowding became increasingly serious over the course of the 1880s and 1890s, neither the state nor the city

did much to guide Berlin's expansion. In the 1860s, James Hobrecht, Berlin's chief urban planner, laid out large city blocks where he anticipated low-density housing surrounded by private gardens. By the end of the century, these lots had been developed to the fullest extent, with apartment blocks rising five stories high and preserving no green space around them. Some buildings attained enormous sizes, extending back from the street around a series of small courtyards. Such patterns of construction made Berlin one of the most densely populated cities in Europe, suffering from all the attendant public-health consequences.¹⁴ By the 1890s, municipal authorities began to propose regulations on metropolitan growth and to plan major new parks. Among those proposals was the purchase of the Grunewald. In 1892 and 1893, the city fathers approached the Prussian government with offers to buy the forest, but to no avail. The authorities had no interest in selling to the municipality what was becoming a prime piece of urban real estate.¹⁵

The Grunewald's rising significance as a site of public recreation, coupled with the state's refusal to sell it to the city, raised some doubts about the future of the forest, moving others to intervene. In 1897, the Silesian Free Conservative, Count Mortimer von Tschirschky-Renard, a member of the Prussian Herrenhaus, proposed legislation to turn the Grunewald into a "state park" with the support of 58 colleagues. Drawing on romantic notions, Tschirschky-Renard called on the state to preserve the Grunewald as an "*Urwald*" to be managed according to aesthetic, not fiscal, principles.¹⁶ Berlin's Free Conservative paper, *Die Post*, echoed Tschirschky-Renard's call to preserve the Grunewald from future destruction.¹⁷ With rising concerns over the problems of Berlin's rapid urban growth, conservative nature enthusiasts sought to enlist the state to save the Grunewald from the encroaching city. Prussian authorities responded by reassuring the legislature that the state was actively concerned with cultivating the aesthetics of the Grunewald.¹⁸ Privately, however, the Prussian cabinet regarded the Tschirschky-Renard bill as a threat to the state's property rights.¹⁹ The Minister of Agriculture therefore promoted and passed a weaker version of Tschirschky-Renard's bill, which simply called on the government to consider the public interest in its management of the forest.²⁰

With the explosive growth of Berlin at the end of the nineteenth century, the Grunewald's significance as a site for recreation only expanded. It became a favored spot for picnics, hiking excursions and beer gardens.²¹ Public pressure to preserve the Grunewald, whether emanating from the Prussian Landtag, the City of Berlin or the unruly crowds attending the *Hubertusjagd*, finally prompted Kaiser Wilhelm II to play the role of Berlin's benefactor. Indeed, he liked to style himself as the people's emperor, and in January 1902 Wilhelm announced that he would

convert the royal hunting preserve of the Grunewald into a “*Volkspark*.” Several Berlin papers greeted the Kaiser’s decision with enthusiasm, noting greater public access to the forest would enhance the health and beauty of the capital.²² The left liberal *Volks-Zeitung*, however, suspected the *Volkspark* plan might have been conceived as a means to sell parts of the Grunewald to real estate speculators.²³

The *Volks-Zeitung*’s misgivings were justified. Until 1901, forestry authorities (the Forstfiskus) had been required by law (since 1820) to use all income from the sale of woodlands to repay state debts.²⁴ With that restriction now out of the way, the Ministry of Agriculture secretly hoped to generate enormous funds not subject to the oversight of the Landtag for land acquisitions in the Prussian east, as the *Volks-Zeitung* speculated.²⁵ In conjunction with the *Volkspark* project, the ministry planned to sell a significant portion of the Grunewald for the development of a fifty-meter wide *Prachtstrasse* and a luxury residential district.²⁶ Within two months of the Kaiser’s announcement of the *Volkspark* plan, Department of Forestry Chief Wesener informed provincial authorities in Potsdam that the ministry intended to sell over 500 hectares of the Grunewald along the proposed road to developers.²⁷ It appeared that Carstenn’s vision of the Grunewald might, at least in part, become reality after all.

Planning for the *Prachtstrasse* took some time, and only at the end of 1904 did the Ministries of Finance and Agriculture request permission from the Kaiser to sell the northern portion of the Grunewald.²⁸ Berlin’s progressive newspapers caught wind of these plans and launched a campaign against them in the fall of 1904. With the *Berliner Volks-Zeitung* and the *Berliner Tageblatt* in the forefront, many articles began to appear detailing rumors of sinister designs on the Grunewald and denouncing the anticipated butchery of the forests (*Waldschlächterei*) as inimical to the health of the city. The editors of these papers also circulated a petition protesting the sale of any part of the forest—gathering an impressive 30,000 signatures—which they submitted to Minister of Agriculture Victor von Podbielski in November.²⁹ At the same time, the illustrated *Kladderadatsch* ridiculed Podbielski in caricature as the hero of land speculators, and the Deutscher Bund der Vereine für naturgemäße Lebens- und Heilweise held a rally of concerned citizens, insisting that the communal authorities and the Landtag intercede to protect the public’s access to the Grunewald.³⁰ The authorities stood their ground, however, refusing to concede to public demand, so the press campaign continued.

In this clash with the state, the left liberal press styled itself as the champion not just of Berliners in general, but also specifically of Berlin’s working class. As the autumn press campaign against government land deals began, the *Berliner Volks-Zeitung* complained that development plans would hurt Charlottenburg’s working-class neighborhoods.³¹ In

the wake of the November petition, the *Berliner Tageblatt* proudly published a grateful letter from “a number of unionized Berlin workers” thanking the paper for its “manly and energetic intervention for the preservation of the Grunewald.” The letter testified: “You spoke to us Berlin workers from the heart, because in the end we alone are the victims, as the propertied classes can substitute summer holidays and longer excursions.” These workers echoed the recurrent discourse on the importance of the Grunewald for the health of Berlin, but more intriguing was their animus against the Social Democrats. They complained bitterly in their letter that neither the Social Democratic paper, *Vorwärts*, nor the party leadership had expressed any opinion on the Grunewald matter. These frustrated workers therefore declared: “We’ve finally had enough of letting ourselves be fed with these high-sounding, hackneyed expressions . . . We want to rub the cries from the ‘isolated reactionary mass’ outside of Social Democracy in the faces of our ‘leaders.’”³² The preservation of the Grunewald, a liberal reader of the *Berliner Tageblatt* might surmise, functioned therefore not only as a public health measure, but also as a means to reach out to the workers.

Appeals to the working class held great importance for Berlin’s left liberals at the turn of the century, whose monopoly on political power in municipal politics and the city’s delegations to the Landtag and the Reichstag was being seriously eroded by socialist candidates. Already in 1883—despite the official ban on campaigning by the party and the income-based, three-class voting system—Social Democrats entered Berlin’s Stadtverordnete Versammlung, and by 1914, they held 44 of the 142 seats in that body. In 1893, the party controlled five of Berlin’s six seats in the democratically elected Reichstag, and when the Social Democrats finally entered the Landtag’s Abgeordnetenhaus in 1908—again in spite of the discriminatory three-class voting system—they captured 6 of Berlin’s 21 seats.³³ Thus, in making their case to the government and the public, left liberal newspapers and politicians must have had the socialist threat in mind. It seems likely, therefore, that they predicated their repeated emphasis on the importance of forests for the working classes on political considerations, and not simply on goodwill.³⁴ As time progressed, and the strength of Berlin’s Social Democratic Party increased, the working-class motif of the debates only grew.

As the level of tension rose between Berliners and the Prussian state, and as left liberals attempted to appropriate the issue for themselves, rightward leaning newspapers that had criticized official pronouncements in the past now downplayed the confrontation. In the wake of the November petition, the nationalist *Tägliche Rundschau*—which had articulated largely the same critical stance as the *Volks-Zeitung*—now concluded rather anemically that the only question remaining was how

much Berlin would have to pay to secure the Grunewald for itself.³⁵ The Free Conservative *Berliner Neueste Nachrichten*, another early critic of the state's Grunewald policy, similarly demurred, providing only a simple account of the petition.³⁶ With the progressive newspapers aggressively taking control of the story by actively participating in it, protecting the Grunewald became a largely left-liberal issue.

While the progressive newspapers' indignation over the proposed sales caused reformers on the right to drop the issue, it called forth invective from more traditional conservatives. The reactionary *Kreuzzeitung* stepped forward to defend Podbielski from attacks in the liberal press. In an exasperated tone, it complained that the *Berliner Tageblatt* believed that Berlin's size and wealth entitled it to privileged treatment by the state. While the public might have demonstrated its attachment to the Grunewald, the *Kreuzzeitung* noted this was no reason for the authorities simply to give it away as a gift. Instead, the paper recommended a parental approach: the officials should treat the capital as a child that needs to learn responsibility, and should demand a price for the forest.³⁷ Thus the struggle for the Grunewald pitted Berlin's left-liberal champions against the Prussian administration and its archconservative allies. As the press campaign yielded few concessions, the debate leapt from the headlines into the Prussian parliament.

As a result of the government's hostile stance towards Berlin and its efforts to save the Grunewald from development, political forces at the state level organized to block the Ministry of Agriculture's agenda. Between 1905 and 1910, the conflict played out on the floors of both houses of the Prussian Landtag. Left liberals rallied to the cause of forest protection, denouncing state policy as selfish and shortsighted, as it ignored public health to the detriment of Berliners and Germany as a whole. They accused the Ministry of Agriculture of attempting to turn a profit on the backs of Berlins' workers.³⁸ National Liberals eventually joined in the debate, echoing the demand for public access to and preservation of the Grunewald.³⁹ The state continued to insist on its right to dispose of its property as it pleased, but quickly found itself under pressure from Conservatives to concede.⁴⁰ Berlin Conservatives raised concerns over the degeneration of urban youth lacking opportunities for healthy recreation.⁴¹ At the same time, Conservatives from other parts of the country began to express some discomfort with the government's hard line, suggesting that the Grunewald was more than just another piece of urban real estate.⁴² Indeed, just about the only voice supporting the government was the agrarian *Deutsche Tageszeitung*.⁴³ This widespread resistance placed the Minister of Agriculture in a difficult position, requiring him to navigate a course between acknowledging the state's responsibility to the public (and in particular the Kaiser's promise of a *Volkspark*) on the one

hand and the administration's desire to realize significant profits from its land around Berlin on the other. Largely silent support for the government came from agrarians and the Center Party in the legislature, both of which blocked bills directing the state either to preserve the Grunewald or sell it at reduced rates to Berlin.⁴⁴ By 1910, although opponents of state policy had managed to protect only the Grunewald's Havel shoreline from being sold, they nonetheless succeed in shaping the debate, putting the government on the defensive.⁴⁵ This laid the groundwork for the later negotiated settlement. However, it would take pressure not only from the press and the Landtag, but also from the broader public, to push the government to compromise.

While the Landtag became increasingly critical of government policy, Berliners mobilized to protect the Grunewald. As far back as the autumn of 1904, tens of thousands had petitioned the government to save the woods. But with media and legislative efforts to rein in the regime stalled, a wide range of Berliners turned to more vocal forms of protest. Berlin's lively network of public associations, encompassing everything from landowners' societies to hiking clubs, rallied together to stymie government plans. They argued that greater access to the forest would help address the problems of unregulated urban expansion, declining public health, rising social unrest and deteriorating national sentiment.

Through 1907 and 1908, Berlin's myriad public associations—the fabric of German civil society—began to use their influence to lobby the government. Perhaps with the memory of Tschirschky-Renard's efforts in mind, several civic organizations petitioned the Herrenhaus to preserve the Grunewald in 1907.⁴⁶ A second set of petitions originated in January 1908, at an auspicious gathering dubbed the *Waldschutztag*. This meeting was convened by the Berliner Waldschutzverein to bring together individuals and groups to strategize the defense of the Grunewald.⁴⁷ High-profile dignitaries studded the attendance list, including Walter Leistikow, the celebrated secessionist painter, Arthur von Gwinner, the director of the Deutsche Bank, Baron Octavio von Zedlitz und Neukirch, the leader of the Free Conservative Party with close ties to industrial interests, and Prince Heinrich zu Schönaich-Carolath, a wealthy reformist aristocrat with industrial interests who had left the Free Conservatives to join the National Liberals. Rather than agrarians waxing romantic over the beauties of the Grunewald, these prominent personages championing Berliners' right to the woods reflected the modernizing wing of Imperial Germany's elites. Moreover, this assemblage illustrated the broad alliance of political interests mobilizing to defend the woods; Pan German League activist Admiral Eduard von Knorr sat in the meeting alongside left liberal Bernhard Schnackenburg, soon to be appointed Lord Mayor of Altona.

Joining these distinguished social and political figures was a number of scientists and academics, three of whom addressed the assembly on key topics. The Director of the University of Berlin's Hygiene Institute, Professor Rubner, spoke on the climatic and hygienic importance of the Grunewald; State Geologist Dr. Hans Potonié focused on its botanical and zoological importance; and the teacher Dr. Henning reported on recent tree felling and real estate development in the woods.⁴⁸ Following the speeches, this dignified assembly drafted a petition calling on the state to limit its sale of forests near cities and asked that any such sales be brought to the attention of the Landtag. Twenty-six groups, ranging from the Deutsche Entomologische Gesellschaft and the Botanischer Verein der Provinz Brandenburg to Berlin's elite *Heimat* group, Brandenburgia, submitted the petition separately to the Herrenhaus.

This elite protest stirred sympathy in the Herrenhaus. Despite government opposition, the chamber agreed with the petition and resolved that the government should limit its sales of the Grunewald and inform the Landtag of them.⁴⁹ Although the bill had no teeth, it indicated the seriousness with which the unelected Herrenhaus regarded the growing discontent. After all, the assembly could have simply ignored the petitions with impunity. Now, however, this overwhelmingly Conservative body began to impinge on state plans. In an official statement to the Herrenhaus, the government agreed to avoid the sale or exchange of land in the Grunewald "in so far as this can be reconciled with the purposes of the state."⁵⁰ Again, officials responded to legislative pressure with vague guarantees, which only served to further mobilize the public.

While the first *Waldschutztag* might appear to have achieved little, it in fact paved the way for the far more popular second *Waldschutztag* the following year. There, Berliners of many different stripes and from far more modest social backgrounds called for the preservation of the woods. Thirty groups representing teachers, housing reform advocates, public health officials and *Heimat* enthusiasts, among others, expressed their dismay at the continual loss of woodlands in the region and advocated their purchase by the municipalities. In contrast to the first conference—dominated by prestigious personalities—the second conference was driven by a broad array of interest groups.

On January 16, 1909, medical professor Dr. Karl Anton Ewald, the Chairman of the Berliner Waldschutzverein, opened the second *Waldschutztag* in the *Architektenhaus* on the Wilhelmstrasse, in the heart of Berlin's government district. In attendance was not only a panoply of Berlin associations, but also government and municipal officials. Ewald opened the meeting by describing the changing role of his Waldschutzverein. While it had been founded to prevent littering in the Grunewald, the political situation had impelled the members to campaign to save the

forests around Berlin. This move from attempting to discipline the public (preventing “*Schmutz*”) to advocating for them (promoting “*Schutz*”) suggests the responsiveness of Berlin’s civic leaders to public desires. Ultimately, Ewald argued, the preservation of these woods would further the social, cultural, aesthetic and public health agendas of all the groups participating in the *Waldschutztag*.⁵¹

Besides the Berlin Forest Protection Association, an additional five groups sponsored the meeting, each representing differing agendas in the conservation of the Grunewald: the Bund Deutscher Bodenreformer under the leadership of the property reform advocate Adolf Damaschke; the Büro für Sozialpolitik, a coalition of liberal social reformers, represented by one of its founders, Ernst Francke; the Deutsche Gartenstadt-Gesellschaft, a group promoting more affordable suburban living to counterbalance the increasing density of cities and headed by the moderate socialist Bernhard Kampffmeyer; the Landesgruppe Brandenburg des Bundes Heimatschutz, led by the left-liberal Abgeordnetenhaus representative, nature enthusiast and school principal, Karl Wetekamp; and the Zentralkommission der Krankenkassen Berlins und der Vororte, represented by a Herr Simanowski.⁵² These groups set the program for the conference.

The diversity of organizations sponsoring the meeting illustrated the broad array of interests coalescing around the opposition to state policy. Property reform advocates, concerned with rising rents and poor housing conditions, sought to prevent the state from selling its land to real estate speculators in order to avert a further escalation of land prices throughout the region. Moreover, they sought to preserve the forest for the use of their impoverished constituency. Kampffmeyer’s vision of a garden city, with light and air for all, likewise sought to reform urban housing conditions and preserve parklands in and around the city. Naturally, insurance companies also had an interest in improving the living conditions of their clients and promoting better public health. A healthier population with better access to recreation would also contribute to the goals of social reform, ameliorating the growing misery of Berlin’s working class and thus alleviating the social tensions liberal reformers felt fueled political radicalism. In a similar vein, *Heimat* protection interests believed the preservation of the Grunewald would serve not only to address the problems of cramped urban housing, deteriorating public health and the social crises arising from them, but also felt the forest would contribute to a growing feeling of local and national patriotism that would inoculate the poor against the appeals of revolutionary socialism.

These motives found their echo and some elaboration in the further thirty groups participating in the meeting. Twelve groups focused on social concerns: five stressed urban issues, four were liberal labor unions, two social reform associations and the last a league of women’s groups.⁵³

Another ten of them addressed public health issues: four associations were dedicated to public health generally, three to combating alcoholism, two with athletics and one with holistic medicine.⁵⁴ These two clusters of associations comprised the majority of the interest groups at the conference, reflecting the dominance of social and public health concerns at the organizers' level. In addition, a further five groups represented youth and educational interests: three were teachers' associations, one promoted science education and the last was a youth welfare organization.⁵⁵ A final three represented academic interests: the Verein für Geschichte Berlins, the Deutsche botanische Gesellschaft and a scientific society promoting the preservation of the Grunewald's moors.⁵⁶ While these diverse groups all approached the Grunewald problem from a different angle, the need to maintain workers' access to nature held the conference together. As the representative of the liberal Verband Deutscher Gewerkvereine, Goldschmidt, argued, "The interest of the workers is closely connected with the preservation of woodlands around Berlin," stressing this issue would determine the "national future."⁵⁷ The speakers all identified workers' access to nature as an important means of overcoming the problems of urbanization that threatened their health, morality and patriotism. This broad coalition sought to act in the public interest.

The efforts of the *Waldschuttag* garnered national attention, and demonstrated to Prussian authorities public resolve in the matter.⁵⁸ This increasing attention to the Grunewald issue prompted Berlin's left liberal Mayor, Max Kirschner, to engage the government in negotiations; a few months after the second *Waldschuttag*, Kirschner joined with suburban mayors in an effort to buy the Grunewald and other forests surrounding the metropolis.⁵⁹ Securing the woods was one element of a larger effort at regional cooperation to manage urban growth; the other two issues were public transportation and city planning. Their first effort at negotiation—in April 1909—involved 10,000 hectares of woodland around the city. This effort failed, however, when the Ministry of Agriculture insisted on a price of two marks per square meter and the municipalities refused to pay more than one.⁶⁰

Over the course of the following two years, the municipalities formalized their association in the form of a *Zweckverband*, formally laying down the political and financial relationships between them.⁶¹ They resumed negotiations with the government in 1911, and by May 1912, the Ministry of Agriculture offered 11,200 hectares of forest for just under 179 million marks (or roughly 1.60 marks per square meter). The Forstfiskus also claimed the right to repurchase the land from the municipalities at the original price.⁶² The *Zweckverband* rejected this price and the left liberal press expressed outrage at the right of repurchase.⁶³ The leader of the *Zweckverband*, Dr. Karl Steiniger, complained to the Kaiser person-

ally, and Wilhelm commanded his Minister of Agriculture to produce a more suitable offer.

Within the cabinet, anxiety over growing popular impatience with the series of drawn-out negotiations compelled some to seek compromise. Already in 1908, public anger over government intransigence prevented the cabinet from requesting funds for the *Prachtstrasse* project. At the height of the *Daily Telegraph* crisis, in which Wilhelm II's rather too-candid comments about Germany's relationship with several other nations were published in the aforementioned British daily, the Minister of Finance worried that criticism of the plans could "turn against His Majesty and therefore would be very unfortunate, especially now."⁶⁴ Similarly, fears of public distrust led to the polarization of the cabinet in the 1912 negotiations, with the Ministries of Finance and Agriculture taking a hard line, while the remaining ministries urged concessions. Although the Ministries of Finance and Agriculture, under pressure from the Kaiser, initially proposed lowering their initial 179 million mark offer to 113 million, a few months later they recommended raising the price, arguing that Berlin could afford market rates.⁶⁵ The Ministries of Public Works and the Interior strongly objected to the inflated sum, citing public health concerns. Moreover, the Minister of Public Works stressed the sale was "politically absolutely necessary." If the state now insisted on a higher price, "the good will of the government would be doubted," and this would have serious consequences, "especially because the person of His Majesty the King has already been associated with the matter."⁶⁶ By January 1913, internal and external pressure had forced the Forstfiskus to reduce its offer to 70 million marks for 10,000 hectares, less than half the price (0.70 marks per square meter) of its 1909 demand. But even this dramatic reduction was considered insufficient by the Ministries of Culture and the Interior, who along with Chancellor Bethmann-Hollweg, felt the price should be set at 53 million marks out of concern for "general political considerations." The Ministries of Trade, Justice and Public Works were willing to entertain even lower figures.⁶⁷ Pressure from below had brought about serious compromises from the highest state officials.

After much negotiation, the *Zweckverband* finally agreed to an offer of 10,000 hectares for 50 million marks at no interest. With annual payments fixed at 3 million marks, this meant the cost of the woods worked out to be less than one mark per inhabitant per year. Moreover, as a result of the outbreak of war shortly after the deal was concluded, the cost to the city was reduced by half as a result of rising inflation.⁶⁸

Berliners fought hard for their woods. They infiltrated the Grunewald, symbolically driving the Kaiser out by 1904. Over the course of the next twelve years, they transformed the Grunewald from a royal

hunting ground into a municipally owned public park. They protested the state's plans to profit from the sale of public woodlands, insisting they be preserved for their health and enjoyment. In the press, in parliament and in their associations, citizens of the metropolis articulated their demands. They believed a belt of forests around their congested city could help solve the pressing urban, medical, social and political problems of the day. Left liberals championed the city's cause, calling for the state to justify its policies to the public. Nature could help solve the enormous problems posed by industrialization and urbanization, left-liberal reformers insisted, and they demanded the state compromise on its goals. When Berlin's leaders realized they could not trust the state to preserve the woods, they turned to buying them. Pressure from the public split conservatives and Prussian officials, forcing the state to relinquish the woods surrounding Berlin at a fraction of their real estate value and frustrating government plans to cash in on its property.

The struggle to protect the Grunewald demonstrated the rational and progressive agenda of the nature enthusiasts. Far from being a preserve of reactionaries and romantics, the campaign to protect the Grunewald represented a serious attempt to deal with the consequences of modernization, not to flee from them. This fight also demonstrates the power of Berlin's liberal municipal administration, along with its allies in the press and the network of associational life, to overcome the self-interested motives of the Prussian state. An active city government assumed responsibility for social reform when reform at the state level stalled, hoping through its efforts to win the working classes over to liberalism. Finally, the Grunewald story documents the potential of the public, energized by this strong leadership, to confront the state over issues concerning social welfare, public health and environmental protection. By the First World War, Berliners had succeeded in wresting what they wanted from the state.

Notes

¹ Ulrich Linse, Reinhard Falter, Dieter Rucht and Winfried Kretschmer, "Ein Vergleich," in *Von der Bitschrift zur Platzbesetzung. Konflikte um technische Grossprojekten: Laufenburg, Walchensee, Wyhl, Wackersdorf*, eds. Ulrich Linse, Reinhard Falter, Dieter Rucht and Winfried Kretschmer (Berlin, 1988), 231, 237, 240, 248, 254. This sort of dismissal of early environmental efforts is common. See for example Arne Andersen, "Heimatschutz. Die bürgerliche Naturschutzbewegung," in *Besiegte Natur. Geschichte der Umwelt im 19. und 20. Jahrhundert*, eds. Franz-Josef Brüggemeier and Thomas Rommelspacher (Munich, 1987), 143–157. For a revision of this view, see Thomas Lekan, *Imagining the Nation in Nature: Landscape Preservation and German Identity, 1885–1945* (Cambridge, MA, 2004); John Alexander Williams, "'The Chords of the German Soul Are Tuned to Nature': The Movement to Preserve the Natural Heimat from the Kaiserreich to the Third Reich," *Central European History* 29 (1996): 339–384; William Rollins, *A Greener Vision of Home: Cultural Politics and Environmental Reform in the German Heimatschutz Movement, 1904–1918* (Ann Arbor, 1997).

² Dan Mattern argues with regard to the creation of Greater Berlin that “without reforming the Prussian three-class suffrage, movement on the provincial and state levels were [sic] foreclosed.” The example of the campaign to save the Grunewald, part of the struggle to create a Greater Berlin, reveals the power of public protest under municipal leadership. Mattern, “Creating the Modern Metropolis: The Debate over Greater Berlin, 1890–1920” (PhD diss., University of North Carolina, 1991), 196.

³ Raymond Dominick very briefly discusses the Berliners’ campaign for the woods as a success in his book on the early German environmental movement. See his *The Environmental Movement in Germany: Prophets and Pioneers, 1871–1971* (Bloomington, 1992), 43–45.

⁴ W. von D., “Sanct Hubertus-Fest im Grunewald bei Berlin,” *Über Land und Meer* 33 (1874): 255; August Trinius, *Die Umgebung der Kaiserstadt Berlin* (Berlin, 1889), 208; Karl Schmedes, ed., *Grunewald*, vol. 4, *Fontane’s Führer durch die Umgegend Berlin*, ed. Touristen-Club für die Mark Brandenburg (Berlin, 1894), 28.

⁵ Trinius, *Die Umgebung der Kaiserstadt Berlin*, 209.

⁶ Heinrich Prinz von Schönburg-Waldenburg, “Parforcejagd im Grunewald,” in *Geist und Gesellschaft der Bismarckzeit*, ed. Karl Heinz Höfele (Göttingen, 1967), 263.

⁷ Schmedes, *Grunewald*, 28.

⁸ Hermann Berdow, *Der Grunewald* (Berlin, 1902), 94.

⁹ G. Albrecht, “Aus der Vergangenheit des Grunewalds,” *Brandenburgia* 16 (1907/8): 254–255.

¹⁰ On Carstenn, see Michael Erbe, “Berlin im Kaiserreich” in *Geschichte Berlins*, 2 vols., ed. Wolfgang Ribbe (Munich, 1987), 2:704–708; Felix Escher, *Berlin und sein Umland. Zur Genese der Stadtlandschaft bis zum Beginn des 20. Jahrhunderts* (Berlin, 1985), 219–226; Christoph Bernhardt, *Bauplatz Gross-Berlin* (Berlin, 1998), 199; Werner Hegemann, *Das steinerne Berlin. Geschichte der grössten Mietkasernenstadt der Welt* (Berlin, 1963), 343–352.

¹¹ Letter from Ministers Itzenplitz (Trade) and Camphausen (Finance), Nov. 20, 1872. In Geheimes Staatsarchiv Preussischer Kulturbesitz (hereafter GStAPK), I HA Rep.89, Nr.31820, b.32–37.

¹² Escher, *Berlin und sein Umland*, 236–237, 242–243.

¹³ For her concern for the working classes, Heinrich von Treitschke tarred Dohna-Poninski as a socialist in his *Preussische Jahrbücher*. Arminius [Countess Adelheid Dohna-Poninski], *Die Grossstädte in ihrer Wohnungsnot und die Grundlagen einer durchgreifenden Abhilfe* (Leipzig, 1874), 149. See also Hegemann, *Das steinerne Berlin*, 369–372, 377; Werner Hegemann, “Stadt und Wald,” *Die Woche* 7 (1913): 256.

¹⁴ Günther Richter, “Zwischen Revolution und Reichsgründung,” in *Geschichte Berlins*, ed. Ribbe, 2:704–708; Escher, *Berlin und sein Umland*, 605–687, 662–667; Jutta Lubowitzki, “Der ‘Hobrechtplan.’ Probleme der Berliner Stadtentwicklung um die Mitte des 19. Jahrhunderts,” in *Geschichte Berlins*, ed. Ribbe, 1:11–130; Nicholas Bullock and James Read, *The Movement for Housing Reform in Germany and France, 1840–1914* (Cambridge, 1985), 86–93, 198–206; Gerhard Narweileit, “Zur Umweltproblematik in der Stadt Berlin während der industriellen Revolution (1800–1870),” *Jahrbuch für Wirtschaftsgeschichte*, Sonderband (1986): 85–107; Erbe, “Berlin im Kaiserreich,” 700–704; Brian Ladd, *Urban Planning and Civic Order in Germany, 1860–1914* (Cambridge, MA, 1990), 89–90, 224–226.

¹⁵ Meetings of the Magistrat Berlin (hereafter MB), Sept. 13 and 20, Oct. 13 and 21, 1892. In Landesarchiv Berlin (hereafter LAB), STA Rep.01–02, Nr.1814, b.6–10; see also speech by Abgeordnetenhaus (hereafter AH) Delegate and Berlin Stadtrat Fischbeck in the AH, Feb. 13, 1907, 579–580, in LAB, STA Rep.01–02, Nr.1814, b.40. Staatsministerium (hereafter SM) meeting, Nov. 16, 1892, in GStAPK, I HA Rep.90, Nr.1632, b.21–22. Letter from Ministry of Agriculture to MB, Nov. 15, 1892. In LAB, STA Rep.01–02, Nr.1814, b.11.

¹⁶ Herrenhaus (hereafter HH) Motion by Count von Tschirschky-Renard, May 15, 1897, in GStAPK, I HA Rep.169, C 23, Nr.39, b.1.

¹⁷ R. S., "Zur Erhaltung des Grunewaldes," *Die Post*, May 22, 1897, in GStAPK, I HA Rep.89, Nr.31820, b.117.

¹⁸ Speech by Lucius in HH, May 21, 1897; speech by Miquel in HH, May 31, 1897, in GStAPK, I HA Rep.169, C 23, Nr.39, b.2-4.

¹⁹ SM meeting, Jan. 6, 1898, in GStAPK, I HA Rep.90, Nr.1632, b.37.

²⁰ HH, May 31, 1897, in GStAPK, I HA Rep.169, C 23, Nr.39, b.4.

²¹ See chapter IV of my dissertation, "Nature and Nation: The 'German Forest' as a National Symbol, 1871-1914," (PhD diss., University of Michigan, 2002).

²² C. G., "Der Grunewald zum Volkspark umgeschaffen," *Deutsche Warte*, Jan. 19, 1902; "Der Grunewald als Volkspark," *National Zeitung*, Mar. 12, 1902; "Der Volkspark Grunewald," *Das deutsche Blatt*, Mar. 18, 1902; "Die Umwandlung des Grunewalds in einen Volkspark," *Der Tag*, Mar. 12, 1902, in LAB, STA Rep.01-02, Nr.1814, b.16-21.

²³ "Zu dem Grunewald-Volksparkprojekt," *Volks-Zeitung*, Mar. 14, 1902, in LAB, STA Rep.01-02, Nr.1814, b.20.

²⁴ See speech by Luwig Jablonski in Der Berliner Zentralausschuss für die Wald- und Ansiedlungsfrage, ed., *Der Kampf um unsere Wälder* (Berlin, 1909), 10.

²⁵ Escher, *Berlin und sein Umland*, 308.

²⁶ On the state's role in promoting and profiting from private real estate development, see Escher, *Berlin und sein Umland*, 293-295, 299-300.

²⁷ Letter from Wesener to Königliche Regierung Potsdam, Mar. 27, 1902, in Landeshauptarchiv Brandenburg (hereafter LHAB), Pr. Br. Rep.2A I P, Nr.1068, b.1-2.

²⁸ Letter from Podbielski and Rheinbaben to the Kaiser, Dec. 21, 1904, in GStAPK, I HA Rep.89, Nr.31820, b.179-181.

²⁹ "Schicksal des Grunewaldes." *Volks-Zeitung*, Nov. 14, 1904.

³⁰ Stutz, "Pod der Waldverwüster." *Kladderadatsch* 57 (Oct. 9, 1904): 164; "Gegen die Verstümmelung des Grunewaldes," *Volks-Zeitung*, Nov. 12, 1904, in LAB, STA Rep.01-02, Nr.1814, envelope 2.

³¹ "Wenn der Grunewald 'Volkspark' wird," *Volks-Zeitung*, Sept. 23, 1904, in LAB, STA Rep.01-02, Nr.1814, envelope 2.

³² Letter from Berlin workers to the *Berliner Tageblatt*, quoted in "Der Kampf um den Grunewald," *Berliner Tageblatt*, Nov. 15, 1904, in LAB, STA Rep.01-02, Nr.1814, b.30-31. The archival collections of newspaper articles I consulted contained no clippings from *Vorwärts* on the Grunewald until 1907. Whether this was for lack of interest in the issue on the part of the Social Democrats or archival caprice, I cannot say.

³³ On Berlin politics, see Erbe, "Berlin im Kaiserreich," 759-775; James Sheehan, *German Liberalism in the Nineteenth Century* (Atlantic Hights, NJ, 1995), 230.

³⁴ A similar dynamic unfolded in other German cities, where the socialists' entry into municipal politics spurred left liberals to propose social reforms. See George Steinmetz, *Regulating the Social: The Welfare State and Local Politics in Imperial Germany* (Princeton, 1993), 186; Ursula Bartelsheim, *Bürgersinn und Parteiinteresse: Kommunalpolitik in Frankfurt am Main 1848-1914* (Frankfurt/Main, 1997), 255-259.

³⁵ "Das Schicksal des Grunewaldes," *Tägliche Rundschau*, Nov. 14, 1904, in Staatsbibliothek Preussischer Kulturbesitz, Nachlass Conwentz, K12 (Zeitungsausschnitte zum Naturschutz).

³⁶ "Unsere Information bezüglich des Grunewaldes," *Berliner Neueste Nachrichten*, Nov. 14, 1904, in LAB, STA Rep.01-02, Nr.1814, envelope 2.

³⁷ "Noch einmal Berlin und der Grunewald," *Neue Preussische Zeitung*, Nov. 15, 1904, in LAB, STA Rep.01-02, Nr.1814, envelope 2.

³⁸ In the AH, see speeches by Kreitling (Jan 28, 1905), Gerschel (Jan. 18, 1907) and Fischbeck and Müller (Feb. 13, 1907), in LAB, STA Rep.01–02, Nr.1814, b.39–40. In the HH, see speech by Bender (Mar. 30, 1908), in LAB, STA Rep.01–02, Nr.1814, b.79.

³⁹ In the AH, see speeches by Böttinger and Friedberg (Feb. 13, 1907), in LAB, STA Rep.01–02, Nr.1814, b.40.

⁴⁰ Speaking for the government in the AH, see speeches by Podbielski (Jan. 28, 1905) and Wesener (Jan. 18, 1907, and Feb. 13, 1907), in LAB, STA Rep.01–02, Nr.1814, b.39–40.

⁴¹ In the AH, see speeches by Hammer (Feb. 1, 1906) and Felisch (Jan. 25, 1908), in GStAPK, I HA Rep.169, C 23, Nr.39. See also petitions from the Berliner deutschkonservativer Wahlverein (A. B. Wagner) to the Ministry of Agriculture, Jun. 28, 1906, and Dec. 1906. In GStAPK, I HA Rep.90, Nr.1632, b.42 & 43.

⁴² In the AH, see speeches by Brandstein and Pappenheim (Feb. 13, 1907), in LAB, STA Rep.01–02, Nr.1814, b.40.

⁴³ "Grunewald und Fiskus," *Deutsche Tageszeitung*, Aug. 13, 1908, in LAB, STA Rep.01–02, Nr.1814, b.82.

⁴⁴ See AH Budget Commission meeting, Feb. 25, 1909, in GStAPK, I HA Rep.169, C 23, Nr.39.

⁴⁵ See AH, Mar. 13, 1909, in GStAPK, I HA Rep.169, C 23, Nr.39.

⁴⁶ Petition from the vereinigte kommunale Vereine von Zehlendorf to the HH, 1907, in LAB, STA Rep.01–02, Nr.1814, b.77.

⁴⁷ For a brief depiction, see Dominick, *The Environmental Movement in Germany*, 44; Escher, *Berlin und sein Umland*, 316.

⁴⁸ Invitation to the first Waldschuttag from the Berliner Waldschutzverein to the MB, Dec. 1907, in LAB, STA Rep.12, Nr.485, b.13.

⁴⁹ HH, 6 April 1908, in GStAPK, I HA Rep.169, C 23, Nr.39.

⁵⁰ *Übersicht der Entschlüsse der Königlichen Staatsregierung auf Beschlüsse des Herrenhauses aus der 20. Legislaturperiode*, Nr. 19, in GStAPK, I HA Rep.169, C 23, Nr.39.

⁵¹ Berliner Zentralausschuss, ed., *Der Kampf um unsere Wälder*, 6.

⁵² Ibid., 5. On Damaschke and the Bodenreform movement, see Kevin Repp, *Reformers, Critics, and the Paths of German Modernity: Anti-politics and the Search for Alternatives, 1890–1914* (Cambridge, MA, 2000), 69–91; Bullock and Read, *The Movement for Housing Reform*, 159–163, 178–179; Elisabeth Meyer-Renschhausen and Hartwig Berger, "Bodenreform," in *Handbuch der deutschen Reformbewegungen, 1880–1933*, eds. Diethart Kerbs and Jürgen Reulecke (Wuppertal, 1998), 265–276; Josef Seemann, "Bund Deutsche Bodenreformer (BDB) 1898–1945," in *Lexikon zur Parteiengeschichte*, eds. Dieter Fricke et al. (Leipzig, 1983), 282–288; Ladd, *Urban Planning*, 177–178. On Kampffmeyer and the Gartenstadt movement, see Klaus Bergmann, *Agrarromantik und Grossstadtsfeindschaft* (Meisenheim am Glan, 1970), 135–164; Kristiana Hartmann, *Deutsche Gartenstadtbewegung: Kulturpolitik und Gesellschaftsreform* (Munich, 1976); Kristiana Hartmann, "Gartenstadtbewegung," in *Handbuch der deutschen Reformbewegungen*, eds. Kerbs and Reulecke, 289–300. On Francke and the Büro für Sozialpolitik, see Rüdiger vom Bruch, ed., *Weder Kommunismus noch Kapitalismus: bürgerliche Sozialreform in Deutschland vom Vormärz bis zur Ära Adenauer* (Munich, 1985), 130–139; Holger J. Tober, *Deutscher Liberalismus und Sozialpolitik in der Ära des Wilhelminismus* (Husum, 1999).

⁵³ Included here were: the Ansiedlungsverein Gross-Berlin, Berliner Zentralausschuss für die Wald- und Ansiedlungsfrage, Freie Vereinigung Grunewald, Mieterbund Gross-Berlin, Verein der Vororte Berlins zur Wahrung gemeinsamer Interessen; the Gewerkverein der Heimarbeiterinnen, Hirsch-Duncker Gewerbeverein, Verband der Deutschen Gewerkvereine, and the Kartell der Christlichen Gewerkschaften Berlins und Umgegend; the Berlin branch of the Gesellschaft für soziale Reform and the Jacob Plaut-Stiftung Berlin; and the Verbündete Frauenvereine Gross-Berlin.

⁵⁴ Included here were: the Berliner medizinische Gesellschaft, the Berlin branch of the Deutsche Zentrale für Volkshygiene, the Verein für öffentliche Gesundheitspflege, and the Vereinigung der Walderholungsstätten vom Roten Kreuz; the Berliner Zentralverband zur Bekämpfung des Alkoholismus, Brandenburgischer Distrikt des Internationalen Guttempler Ordens, and Deutscher Verein gegen Missbrauch geistiger Getränke; the Ausschuss der Berliner Turngaue and Berliner Hochschulsportvereinigung; and the Bund der Vereine für naturgemäße Lebens- und Heilweise (Naturheilkunde).

⁵⁵ Included here were: the Berliner Gymnasiallehrer-Verein, Berliner Gymnasiallehrer-Gesellschaft, Berliner Lehrerverein; the Berlin branch of the Verein zur Förderung des mathematischen und naturwissenschaftlichen Unterrichts; and the Deutsche Zentrale für Jugendfürsorge.

⁵⁶ Included here were: the Verein für die Geschichte Berlins, Deutsche Botanische Gesellschaft, and the Ausschuss der wissenschaftlichen und gemeinnützigen Vereine zur Erhaltung der Grunewald-Moore.

⁵⁷ Berliner Zentralausschuss, ed., *Der Kampf um unsere Wälder*, 32.

⁵⁸ National organizations whose branches participated in the conference published lengthy reports, and the transcript of the meeting proved so popular among reform circles, a second edition was issued in 1910. See Erich Neuhaus, "Berliner Waldschutztage," *Bodenreform* 20 (1909): 70–75; "Zum Schutze der Wälder um Gross-Berlin," *Soziale Praxis* (1909): 436–437; "Zur Grunewald-Frage," *Heimatschutz in Brandenburg* 1 (1909): 48–53; Letter from Berliner Zentral-Ausschuss für die Wald- und Ansiedlungsfrage to MB, January 15, 1910, in LAB, STA Rep.01–02, Nr.1814, b.127.

⁵⁹ "Denkschrift betreffend die Erhaltung des Waldbestandes um Berlin," in LAB, STA Rep.01–02, Nr.639, b.12–15.

⁶⁰ See Letter from MB to Minister of Agriculture von Arnim, Apr. 13, 1909, in LAB, STA Rep.01–02, Nr.1814, b.117; letter from Minister of Agriculture von Arnim to MB, May 5, 1909, in LAB, STA Rep.01–02, Nr.1814, b.119; meeting with Wrobel referred to in a letter from the Oberstadtssekretär to Oberbürgermeister Berlin, September 2, 1909, in LAB, STA Rep.01–02, Nr.1814, b.113–114.

⁶¹ For accounts of the *Zweckverband* and its tasks, see Escher, *Berlin und sein Umland*, 318–320; Jürgen von Reuss, "Freiflächenpolitik als Sozialpolitik," in Martin Wagner, 1885–1957: *Wohnungsbau und Weltstadtplanung: die Rationalisierung des Glücks*, ed. Akademie der Künste (Berlin, 1985): 49–65; Erbe, "Berlin im Kaiserreich," 749–754; Bernhardt, *Bauplatz Gross-Berlin*, 273; Mattern, "Creating the Modern Metropolis," 255ff.

⁶² Letter from the Minister of Agriculture to the Ministry of Public Works, May 4, 1912, in GStAPK, I HA Rep.90, Nr.1632, b.189.

⁶³ "Die Vorlage über die Gross-Berliner Waldkäufe," *Berliner Tageblatt*, Oct. 9, 1912, in LHAB, Pr. Br. Rep.2A, III F, Nr.3101; Bernhard Dernburg, "Ein Kritisches Moment in der Entwicklung Gross-Berlins," *Berliner Tageblatt*, Jul. 6, 1912, in GStAPK, I HA Rep.90, Nr.1632, b.196.

⁶⁴ SM meeting, Nov. 30, 1908, in GStAPK, I HA Rep.90, Nr.1632, b.67–68.

⁶⁵ Ministry of Agriculture meeting, Oct. 12, 1912, in GStAPK, I HA Rep.90, Nr.1632, b.266–267, 271–273.

⁶⁶ Ministry of Agriculture meeting, Oct. 12, 1912, in GStAPK, I HA Rep.90, Nr.1632, b.266–267.

⁶⁷ See SM meetings, Oct. 29, 1912, Nov. 11, 1912, Jan. 4, 1913, Jan. 11, 1913, Jan. 22, 1913, in I HA Rep.90, Nr. 1633, b.18–25, 43–52, 92–97, 102–104, 118–123.

⁶⁸ See *Kaufvertragstwurf*, as well as the transcripts of the meetings of May 26 and 29 and June 3, 1914, in LHAB, Pr. Br. Rep.2A, III F, Nr.3094. Copy of memorandum written by the former Verbandsdirektor Steiniger in 1938, reprinted in Rainer Stürmer, *Freiflächenpolitik in Berlin in der Weimarer Republik* (PhD Diss., Free University of Berlin, 1990), 348–349.

NATURE CONSERVATION IN THE AGE OF CLASSICAL MODERNITY: THE LANDESAUSSCHUSS FÜR NATURPFLEGE AND THE BUND NATURSCHUTZ IN BAVARIA, 1905–1933

Richard Hözl

Introduction

In his 1987 essay on the Weimar Republic, which has already become a classic of German historiographical literature, Detlev Peukert defined the term “classical modernity” as the age of the socio-cultural breakthrough of the “modern” way of life from the 1890s to 1933.¹ Preceded by the consolidation of the industrial system in Germany up to the 1890s, the age of “classical modernity” was characterized by radical change and development in science, art, urban planning and technology. One of the consequences of all this was a new way of looking at the process of civilization and a critical view of the problems, losses and conflicts, such as the degradation of nature and the environment, which resulted from the rapid modernization of society. While mainstream public opinion and influential groups in German society appraised the industrial and technological manifestations of “progress,” technicians and engineers fought their way into the ranks of traditional academic professions, fostering almost mythical expectations about the capacities of modern technology. Below the surface, society began to exhibit signs of unease and nervous unrest, triggering a whole cluster of reform movements around the turn of the twentieth century.² The early environmental movement in Germany is located within a wider range of reform movements and critics of civilization, which included distinctly anti-bourgeois groups such as nudists, who challenged Wilhelmine prudery, often in combination with ideas of Social Darwinism and “racial hygiene.” Along with natural healing groups and agrarian settlers they followed, in one way or another, a holistic goal promising the “salvation of civilized man” through a “return to nature.” However, other groups, such as the teetotalers, the so-called *Heimatschutz* movement and the early environmentalists, were deeply rooted in bourgeois society.³

This study is based on a close look at two organizations of the early German environmental movement: the Landesausschuss für Naturpflege in Bayern (LAN), which was jointly founded in 1905 by several private Munich-based associations and the Bavarian Department of the Interior, and the Bund Naturschutz in Bayern (BN), which was launched in 1913

as a private initiative to provide the LAN with a popular basis. Both organizations have as yet not been the focus of historical research on the German environmental movement. Except for a few remarks in larger monographs and some short articles, the historiography of the environmental movement has primarily focused on the Staatliche Stelle für Naturdenkmalpflege in Preussen.⁴ The latter sets an example of personal and institutional continuity from its foundation in 1906 by Hugo Conwentz to its extension in 1934 under Walter Schoenichen, when it became the sole environmental agency of the Third Reich, to its reestablishment after 1945. The most important interpretation of the German environmental movement was by Walter Schoenichen in his 1954 treatise, in which he emphasized that early environmentalism was first and foremost derived from romantic thought.⁵ Schoenichen construed a direct line of development from the “Germanic studies” (*germanistische Studien*—in the sense of *Germanenforschung*) of the early nineteenth century to the idea of nature protection at the beginning of the twentieth century and thereby related the environmental movement as a whole to his own distinctly anti-modernist, blood-and-soil outlook.⁶

The profound reorientation of German society in the 1960s and 1970s (including a reorientation of German historiography) led to a new interpretation of nature protection which did not doubt Schoenichen’s basic thesis of German environmentalism’s purely romantic descent, but harshly criticized this concept as backward-looking, antimodern or even proto-fascist.⁷ Although this interpretation is not altogether false, as the personal example of Schoenichen shows, it appears to over-emphasize and generalize the antimodernist aspect. Indeed, since the early 1990s German historiography has seen a new approach to the interpretation of critics of civilization, life reformers and environmentalists.⁸ New, progressive traits have been discovered in the concepts of these groups and a closer look at the Bavarian organizations concerned with nature protection seems to confirm this trend. Schoenichen’s thesis of a purely romantic outlook does not hold for the two organizations on which this study focuses. The growing concern about the negative effects of industrialization today has led to the demand to treat modernization as a complex and at times ambivalent process and to discard simple dichotomies such as “modern” versus “antimodern” or “reactionary” versus “progressive.” This is not to argue in favor of a positivist idea of historiography, but suggests that the negative effects of modernization and modern ways of living and social reproduction, such as environmental degradation, and criticism of it have to be taken seriously. Indeed, the early environmental movement in Bavaria is best characterized by its attempts—which often ended in failure—to find an alternative, more

sustainable and careful path to modernization in industrially and technologically backward Bavaria.

Dispositions: Environmental and Social Change

The pace of change in the relationship between humankind and its natural environment has accelerated in the second half of the twentieth century at a rate that has made necessary completely new forms of reaction to and mitigation of environmental degradation. Familiarity with the contemporary environmental movement may mean the ideas, arguments and discussions of those early environmentalists sound strange, romantically naive or even reactionary. Therefore a thorough historical analysis cannot but take a look at the material and cultural dispositions, laid down in the course of the nineteenth century, which prefigured the discourse on nature protection around 1900.⁹ Along with the material environmental problems resulting from the process of industrialization, the Bavarian concept of nature protection was influenced by an aesthetic perception of nature as picturesque landscape, as well as an idea of *Heimat* that emphasized the impact of geographical surroundings on the character of the inhabitants of a given area.

That the industrial revolution presented a major turning point in environmental history is undisputed among historians.¹⁰ With hindsight, its main environmental impact seems to have been the switch from solar energy to fossil fuels as the prime source of energy as well as the dynamics of economic growth it unleashed. However, since our concern is early Bavarian environmentalism, we have to ask which particular effects of industrialization were visible around 1900, the approximate starting point of the movement. At the time, industrial pollution in Germany was confined to small "pollution isles" (*Verschmutzunginseln*) and industrialization in Bavaria concentrated around the cities of Augsburg, Nuremberg and Munich.¹¹ Population growth, urbanization, radical changes in agriculture, urban growth and the colonization of the picturesque Bavarian landscape by billboards and industrial architecture were visible manifestations of the industrial age which worried the early environmentalists. Also of great significance was the fact that Germany's population grew from 20 million in 1800 to 65 million in 1914.¹² The increase in urban population peaked in Western Prussia, but in cities like Munich and Nuremberg the population grew at rates of 209 percent and 266 percent respectively in the years from 1875 to 1910.¹³ Munich, for instance, which became the second largest German city in 1890, had increasing difficulties accommodating its population within the old city boundaries. Large-scale urban extension was the consequence, accompanied by rather rudimentary urban planning.¹⁴ As a result, people such as Max Haushofe, an

environmentalist and professor of politics and economics at Munich's polytechnic, voiced criticism that was widespread in fin-de-siècle Germany: "A certain number and size of cities is surely necessary, because without cities a high level of civilization is not possible in a people. But now there are many cities, and enough of them."¹⁵

The rapid population growth was accompanied by a radical reform of agriculture and forestry and a corresponding increase in production, leading to a tangible improvement in living standards by the end of the nineteenth century.¹⁶ The reforms meant the end of traditional forms of farming characterized by the dependence of the rural population on the landowner, the moral economy of the commons, local markets and, on the whole, extensive cultivation of land and forests. Towards the end of the century, new forms of cultivation, such as intensive use of manure and fertilizer, the scientific management of forests, the drainage of swamps, land consolidation, the use of heavy machinery and new management methods, exhausted the soil and radically depleted non-agricultural flora and fauna.¹⁷

Usually, these changes in land use meant a streamlining of landscapes and forests which collided with what Nipperdey refers to as the German bourgeoisie's "predominantly aesthetic and sentimental relationship to nature,"¹⁸ a relationship that arose under the influence of romanticism and as compensation for the dominance of scientific and economic perspectives which viewed the natural environment merely as an exploitable resource. The result was an irreconcilable ideological split; on the one hand there was a pseudo-religious sublimation of nature, while on the other hand there was a completely rational, mechanistic and scientific view of the environment that relegated the romantic view to the sphere of private life.¹⁹

The "invention" of the sublime and romantic nature was instructed by the works of poets, artists and painters. Indeed, nature became one of the "grand topics"²⁰ of painting in the nineteenth century. As Wilhelm Riehl put it, the painter's "eye for the landscape, which evolved from a focus on the individual object to a perspective on the whole,"²¹ provided the early environmentalists with an aesthetic approach to the protection of nature, long before geography and ecology thought in terms of ecosystems. The Alps stand as an example for the *topos* of wild and untamed nature, thereby typifying this aesthetic attitude.²²

However, only a few years after small groups of artists and aristocratic travelers had discovered the "sensations" of the Alps, a new phenomenon, tourism, set in. The "democratization of traveling"²³ brought huge groups of tourists into the regions renowned for their natural beauty and generated a whole new branch of the economy, accompanied by massive hotels, souvenir shops, railways, log cabins, cable railways,

and hiking paths on the mountain ridges, tourist and hiking clubs and travel literature with enormous circulation.²⁴ Within a few years, Alpine nature had not only been transformed into “the well-known cliché of the beauty of nature,”²⁵ but its appearance had also been changed by mass tourism. The Bavarian Alps saw a similar development to that which the Western Alpine region had experienced a few decades earlier. While the region south of Munich was still a virtual no-man’s land around 1850 (it still took almost 24 hours to travel from Munich into the Alps), by 1900, as Max Haushofer notes, it had become city’s front yard for weekend tourists:

The railway lines that lead to Alpine lakes such as the Ammersee and Würmsee, the Kochelsee, the Tegernsee or the Schliersee, and to the Inn Valley not only give the well-off classes the possibility of undertaking day trips to the attractive mountain landscape, but also allow the petty bourgeoisie and the working class to take part in this aristocratic joy; long trains carry thousands of Munich’s inhabitants into the Alps on Sundays and holidays.²⁶

During the hundred years from the romantic period to the turn of the twentieth century, people’s experience of, and attitudes toward, nature had undergone fundamental changes. Nature as a cultural image and construction had become ever more present in ever broader circles of society. It became a major aspect of the cultural formation of society and it was associated with a particular aesthetic notion. Indeed, in some respects we may talk of a democratization of nature which provided the starting point for the movement to protect nature and the environment from degradation.

Directly related to the concept of nature is the idea of *Heimat*. This term has generated much lively discussion and several different definitions.²⁷ Most authors emphasize the geographical and anthropological notions of the term, the specific relation of the individual to their natural and social environment. According to Rolf Petri, the *Heimat* idea had its greatest impact in the century between 1850 and 1950 and can therefore be regarded as a direct reaction to the process of industrialization.²⁸ One of its earliest and most lucid proponents was the writer and historian Wilhelm Heinrich Riehl (1823–1897), who laid down his program of a conservative modernization of German society in his *Natural History of the German People*²⁹ (*Naturgeschichte des deutschen Volkes*). Acknowledging the end of the stable social order of the *ancien régime* and the new geographical and social mobility demanded by the emerging industrial system, Riehl intended

to reintegrate and stabilize those members of the community and society who have become socially ‘homeless’ (*heimatlos*), and to redraw the lines of those

forms of community that have been blurred in the current age of transformation.³⁰

Important for the history of nature protection is Riehl's belief that his project of a new, conservative social order could only be achieved if Germany's environment was protected in its natural form. For Riehl, nature, and forests in particular, were the source of the reinvigoration of the "German people's soul," (the *Volkscharakter*).³¹ In Riehl's worldview, the idea of the nation is transformed into the experience of everyday life by the *Heimat* idea—here, the abstract nation becomes tangible for individual perception.³² Furthermore, the concept of *Heimat* is filled with content by connecting it to the natural environment. Thus nature becomes a distinctly political and conservative term.

This paper will now turn to the motivation, arguments and general outlook of the early Bavarian environmentalists, as well as to how they organized themselves. Their actions were prefigured by the basic cultural and material conditions of Wilhelmine Germany summarized above. However, it was their direct experience that determined the organizational form and the modes of argumentation of the early Bavarian environmental movement.

Organizing Environmental Protection

The first decade of the twentieth century saw the foundation of a number of genuine nature protection organizations, that is, organizations that solely concerned themselves with the protection and conservation of the natural environment or parts of it.³³ They were organized either as small state agencies or private associations. The most influential of the former was the Prussian Staatliche Stelle für Naturdenkmalpflege, founded in 1906 and led by Hugo Conwentz (1855–1922), a professor of botany and the director of a natural history museum. Conwentz developed a unique concept of nature protection, *Naturdenkmalpflege*, a term best translated as the "conservation of natural monuments." By 1914 most German states had followed Conwentz's example and set up state agencies for nature protection. However, hardly any of them maintained Conwentz's original notion of *Naturdenkmalpflege*.³⁴ Toward the end of the *Kaiserreich* several private associations, such as the Verein Naturschutzbund, started to spread the idea of nature protection.³⁵ Those who joined this quest were also conscious of being part of an international community. As the Bavarian environmentalist, Gottfried Eigner, noted in 1907, "the movement for nature protection comprises the whole civilized world."³⁶

In Bavaria, organized nature protection began in 1902, when Gabriel von Seidl, a well-known architect and influential member of Munich's art

circle, founded the Isar Valley Society, or, to use its full cumbersome title, “The Association for the Conservation of the Beautiful Landscape around Munich, with Special Emphasis on the Isar Valley” (Verein zur Erhaltung der landschaftlichen Schönheiten in der Umgebung Münchens, besonders des Isartales/Isartalverein).³⁷ The Society was concerned with the conservation of the upper Isar Valley as a recreation area for the urban population of Munich—a distinctly modern idea in times of rapid and unplanned urban expansion.³⁸ Although the association was deeply rooted in the urban bourgeoisie, it criticized well-off Munich citizens who barred access to the slopes of the Isar Valley by fencing in their country houses. While the association had some success in buying suitable areas along the river and achieved a number of communal regulations on building in green areas, it was not able to keep the river free or stop the construction of hydroelectric plants.³⁹

When the Bavarian State Committee for the Care for Nature, or, to use its German acronym, LAN, was constituted on October 14, 1905, it became the first administrative body for environmental protection in Germany. Its organizational form, as well as the general direction of nature protection in Bavaria, was the outcome of a series of difficult negotiations between three main interest groups: the representatives of the Bavarian administration, a number of private associations (art associations, scientific societies, hiking clubs) and business interest groups.⁴⁰ Naturally, these groups all had different opinions on nature protection. In January 1904 the Munich section of the German Alpine Society, together with about eighty other private associations, presented a petition in which they requested the Bavarian Department of the Interior to “enact suitable regulations” for the protection of natural monuments “of special aesthetic, historical, prehistoric or scientific importance, the conservation of which is of public interest.”⁴¹ The idea was to put natural monuments on a level with historic ones and to develop a new law to regulate natural monuments on private property. The latter was to create an inventory and, if necessary, enable the expropriation of land and compensation for the landowner. In the course of the negotiations, the private environmentalists had to postpone the idea of a legal solution, as the administration was not willing to go that far. At the request of the LAN in 1908, a new police penal code created the possibility of enacting regulations for the protection of endangered species at a local level.⁴² Although the Weimar Constitution of 1919 (Art. 150 No. 1) included the protection of natural monuments, the 1908 Act was to remain the sole legal basis in Bavaria until 1935, when a national law for nature protection was enacted by the Nazi government.⁴³ The administrations before and after World War I feared such a law could burden governments with huge costs resulting

from the need to compensate private landowners affected by expropriations.⁴⁴

The second, though minor, stakeholder in the negotiations on how to organize nature protection was the VDI (German Society of Engineers), one of the most influential lobbying groups for technological and industrial development at the time. When rumors spread that a new institution for nature protection was to be established early in 1905, the VDI turned to the Department of the Interior and demanded a say in the negotiations, mainly because it feared the obstruction of plans for the hydroelectric power plant at the Walchensee:

We have to fear that the rational exploitation of waterpower, which especially in Bavaria is so *extraordinarily* important for industry and the cities, may be obstructed if laws for the protection of natural monuments are enacted without consulting technical engineers. Indeed, technical engineers are able to create the means to combine the wishes of the friends of nature with indispensable technological and economic needs.⁴⁵

The wording of this short quotation, the juxtaposition of the utopian “wishes” of idealist “friends of nature” and the rational expertise of “technical engineers” as well as the “indispensable technological and economic needs” demonstrates a line of argumentation which has confronted environmental movements for as long as they have existed. From the LAN’s perspective, it foreshadowed conflicts that would require new and multi-dimensional arguments and a different form of organization. The administration approved the idea and invited the engineers to join the LAN so that the latter would not “be taken in by endless projects and instead focus on the realistic ones.”⁴⁶ It is hard to estimate the impact of the VDI on the work of the LAN, but within the institutional body it was certainly outnumbered by the representatives of the idea of genuine nature protection.

Almost a year after administrative action on the problem of nature protection had been requested, the Bavarian government reacted. Having originally relied on Conwentz’s concept of small-scale protection of single objects, the Department of the Interior presented a new concept at an interdepartmental meeting which was summarized as *Naturpflege*. *Naturpflege* meant the protection of those “formations of nature the conservation of which serves an extraordinary and non-material interest of the public” and in comparison to which “economic interests would have to take second place.” Public interest meant in this case “scientific and aesthetic interest.”⁴⁷ Despite protests from State Department officials who recognized that *Naturpflege* might go beyond what Conwentz and the Prussian administration were planning, as well as those who voiced concerns about high costs in the case that nature protection would not be

restricted to single natural monuments, the plans were adopted. The Department of the Interior had also developed a plan to set up a semi-official institution in the form of a committee consisting of representatives of private associations. The idea was to establish a "lobby group" for nature protection as a counterweight to the strong industrial lobbies. The "sole object of the committee," the department suggested, "would be to assert the importance of nature protection."⁴⁸

Such suggestions indicate a "modern" concept of procedural politics. They demonstrate the erosion of the nineteenth-century idea of the unbiased and independent civil servant "solely representing the commonwealth."⁴⁹ Policy issues became a matter of fierce bargaining between powerful and highly integrated interest groups. The idea of a semi-official committee was welcomed by the associations selected for membership. In their eyes it presented a proper way to influence politics and policies through a direct link to the government. Indeed, political decisions in Bavaria around 1900 were still negotiated among a small, homogeneous upper class with an elitist, urban, liberal and anti-clerical outlook. It was a class that consisted of high-ranking members of the civil service, big business, large landowners, the aristocracy and the upper middle classes.⁵⁰ Many of the early environmentalists, such as Gabriel von Seidl, were part of this influential circle. An analysis of the committee's membership between 1906 and 1930 shows that it was drawn almost entirely from the nation's bureaucratic and cultural elite. Seventy-four percent of the members were either high-ranking civil servants or carried the title of professor; another 8 percent had other academic titles or military ranks; 6 percent were teachers and 7 percent were artists or writers.⁵¹ The power and prestige of the liberal bureaucratic elites in Bavaria began to fade toward the end of the *Kaiserreich*, a process which continued during the Weimar Republic era. At the same time, Bavarian environmentalists slowly began to emancipate themselves from the administration. Although the government had not opposed the idea of nature protection, it was not willing to give it free rein. At a time when all branches of the administration were faced with the massive expansion of their responsibilities brought on by industrialization and social change, the LAN represented an attempt to transfer environmental responsibility to civil society, although in such a way that it could still be easily controlled.⁵²

Protecting Nature

Over time, however, environmentalists questioned the government's commitment to *Naturpflege* and the boundaries within which they could operate. In its constitutional session in October 1905 the LAN had de-

fined its responsibilities to include: providing authorities with expert advice in order to protect natural areas which were of extraordinary, non-material interest to the Bavarian public; promoting a public sense for *Naturpflege*; "lobbying authorities to save individual natural areas or objects"; and "coordinating all attempts at nature protection in the country."⁵³ The Department of the Interior had mandated that local authorities consult and cooperate with the LAN, which could then boast that "the institutions for *Naturpflege* are acknowledged as the official experts in questions of nature protection."⁵⁴ By 1913 the LAN had 127 sub-committees and 2330 stewards for nature protection at the district and local level. It had published three programmatic volumes, distributed by the administration, which circulated among teachers, priests and magistrates all over Bavaria.⁵⁵ Considerable success concerning the protection of plants and small natural objects added positive value to the balance sheet; forty protected areas for endangered plants had been erected by 1915, plus a number of so-called alpine gardens and natural monuments. Furthermore, 73 species of plants were under local legal protection by 1912.⁵⁶

However, the crucial question proved to be an issue of a very different nature. Already in 1905, the public became aware of plans to construct an enormous hydroelectric plant in the Alpine region south of Munich. The idea was to exploit the natural difference in height between two adjacent lakes by guiding huge amounts of water through several pipelines from the upper lake, the Walchensee, to the lower lake, the Kochelsee, where turbines were supposed to generate electricity for a state that had hitherto been dependent on coal from the Prussian *Ruhrgebiet*.⁵⁷ Although the Bund Heimatschutz had tried to portray the issue as a matter of principle, the LAN and the Isar Valley Society, which had jointly taken up the issue, never intended to obstruct the whole project.⁵⁸ Advocates and opponents of the project mainly argued about questions of detail: How many meters could the water level of the lake be lowered without irreversibly harming the scenic landscape? How much water could be diverted from the River Isar without provoking ecological effects to the detriment of nature, residents and local businesses, such as farming or commercial rafting? How would tourism at the Walchensee and Bad Tölz be affected? Indeed, was there a sufficient market for all the energy that would be generated by the plant?

From the beginning the project was euphorically hailed by businessmen, the media and politicians, and the position of the environmentalists seemed rather hopeless. However, when the construction unit of the Department of the Interior published their plans, which envisaged lowering the water level of the Walchensee by some sixteen meters and diverting large parts of the Isar and another Alpine river, the environ-

mentalists began to mount the barricades.⁵⁹ The Isar Valley Society tried to mobilize public opinion through the media and by contacting the residents of the affected area, in addition to submitting a petition to the Bavarian House of Representatives.⁶⁰ The LAN tried to persuade the Department of the Interior to adopt a compromise plan that would have generated less energy while sparing the region from most of the detrimental effects of the project.⁶¹ The issue came onto parliament's agenda in 1908, 1910 and 1912, and the environmentalists had some success. For instance, the original plans of the Department of the Interior were discarded and the House called for a public competition of engineers that was "to take into account the demands to preserve the beautiful Walchensee landscape."⁶² Nevertheless, the House authorized funding for the project in 1910.⁶³ Although planning came to a temporary halt in 1912, the environmentalists in the LAN were disillusioned. The fact that they had succeeded in forcing environmentalism into a discussion that had initially been strictly confined to the logic of technological and economic progress was a valuable achievement. On the other hand, environmentalists had been the target of harsh criticism from the media and in parliamentary debate.⁶⁴ They also had to acknowledge that the Department of the Interior was not willing to change its plans, despite a number of pleas from the LAN.⁶⁵ In the end, after 20 years of struggle, the plant was completed in 1924 in a slightly altered form. Many of the detrimental effects the environmentalists had warned against, such as dry and eroding river banks, lowered ground water, problematic fish stocks, decreasing iodine wells in the Tölz spa, not to mention the degraded landscape, did indeed eventuate.⁶⁶ However, environmentalists had demonstrated their open-minded, albeit careful, stance towards technological change.

Gradually, the LAN realized that a semi-official conservation committee with little public involvement was almost completely dependent on the goodwill of the administration. In 1913 it took the first step towards greater independence by creating a private association, the Bund Naturschutz. The organization's history was marred by the series of crises that characterized the Weimar Republic. Nevertheless, despite its regional focus on the Bavarian Free State, it became the largest association for environmental protection in Germany in the 1920s. The BN stayed close to the LAN, which continued its work until 1935. The original purpose of the association—"to raise the financial means to stop detrimental intrusions into nature and to encourage donations for nature protection"⁶⁷—proved too difficult to fulfil. Conservation work had been almost completely stopped during the war, and scarce financial means were consumed by inflation in 1922/23. By 1922 the heads of the association realized that the real potential of the organization lay in the strength of its membership, which had already reached 3,000 persons.⁶⁸

The BN's quarterly newsletter, *Blätter für Naturschutz und Naturpflege*, illustrates the lively public work of the association, which attracted a growing number of people through hiking tours, slide and film shows, lectures on nature protection and even advertisements in newspapers and on the radio.⁶⁹ The ambition was to encourage "the masses to enter the association" in order to convert "nature protection into a people's movement"⁷⁰—an appropriate means to promote nature protection in the age of mass consumption and mass tourism. Having started with two hundred members in 1913, the BN increased its membership to 18,086 at the end of the Weimar Republic and reached a peak of 27,531 in 1939.⁷¹ Elementary school teachers constituted roughly a quarter of the overall membership and enjoyed taking teaching out of schools and into public life. Another quarter consisted of civil servants of every level, followed by clerks, priests and corporate members. The increasing membership has to be regarded as a success, all the more because it was not restricted to urban areas or the few prosperous years of the Weimar Republic. While in 1918 and 1920, 32 percent and 37 percent, respectively, of the BN's members came from Munich, the capital's share of the membership decreased to 6 percent in 1926 (7 percent in 1933).⁷² The BN had increased the popularity of its cause significantly and had spread all over the country.

In its practical work the BN had mixed success. Educating the people about the purpose of nature protection was a major focus. Teachers in particular, but also priests and civil servants, helped multiply the efforts of the BN, knowing this would be effective only in the long run: "We have to establish a long-term educational program for the purpose of nature protection and we have to be content if it at least bears fruit in the form of a more nature-friendly attitude among the next generation."⁷³ Another approach focused on the conservation of "untouched" landscapes through founding nature parks, which were to be "protected against the people for the people" for present and future generations. In the words of Karl von Tubeuf, chairman of the BN from 1913 to 1922, they were "to be preserved in their unspoiled quality and power, their virginity and their majestic beauty, for later generations."⁷⁴ Tubeuf's somewhat naïve language demonstrates the dilemma of this approach—even if those protected areas were generous in size, they presented a kind of museum, an exile or a place of recreation for a small number of visitors. Outside, environmental problems were mounting in the rapidly modernizing Bavarian state. Still, the foundation of the nature park in the Alpine region of the Königssee (128 square miles) was a major success for the young association in 1922. Tubeuf reached his goal by spinning an intriguing web of advocates in the turbulent year 1919. These included the local forest keeper, the LAN, the district governor Gustav von Kahr and the

director of the Chamber of Forests.⁷⁵ By 1929, 89 areas of different size had already been put under protection by the administration.⁷⁶ The conflict over the expanding railway system in the Alpine region, however, demonstrated that cooperation with the administration was only successful as long as no substantial economic issues were at stake.⁷⁷ Another striking example was the almost complete lack of a viable legal basis for nature protection. The focus on the education of the public as well as the organizational form of a private association was therefore a step towards emancipation.

Defining Nature Protection

Nature protection in Bavaria was organized according to the principles of modern procedural politics; it used modern means of mass communication and had a quite sophisticated understanding of mass politics in a modern society. However, this alone does not prove the claim that the Bavarian environmentalists proposed a more careful and sustainable path to modernization rather than simply adhering to an antimodernist, backward-looking perspective.⁷⁸ The arguments, motives and approaches of the early environmentalists were shaped by their interpretation of contemporary society during the era of "classical modernity." In 1900, only a small number of people would have answered the following question by Max Haushofer in the affirmative: "And only now, after the close of the nineteenth century, the civilized world realizes that not only does man need protection from the powers of nature, but conversely, nature also needs protection from the acts of mankind. Is this really so?" Within the small group who answered "yes," opinions as to what the reasons for this new situation were and how it was to be resolved varied considerably. Ernst Rudorff, professor of music in Berlin and founder of the Bund Heimatschutz, took a radical position.⁷⁹ For Rudorff, the degradation of nature was not primarily the effect of the external conditions of the industrial system, but the outcome of a fundamental degradation of moral values in Western civilization. "Modern materialism," Rudorff lamented, signifies "that true civilization in our society is dying, for in most parts of the nation there is complete indifference to the legacy of our forefathers, and people's connection with their heritage has faded away altogether."⁸⁰ Therefore the prime purpose of Rudorff's *Heimat* protection was "to bring the devastation caused by the modern system of streamlining to a halt at any cost."⁸¹

The environmentalists of the LAN took a far less radical position. Nevertheless, they also saw degradation as the result of industrialization and a capitalist economy:

Man destroys, not in senseless rage, but in thoughtless levity or brutal pursuit of profit, countless beauties of nature ... A dangerous and destructive crusade against nature begins where mankind dwells too densely, where the masses are forced to exploit every inch of the soil, to liquidate every uneven spot that stands against their hasty and busy working and to unfetter the machinery of their restless pursuit without compassion for the tender formations of nature.⁸²

Others shared Haushofer's analysis, emphasizing either the procedural or individual part of the problem.⁸³ On the whole, however, they shared neither Rudorff's widespread pessimistic view of civilization (*Kulturmessimismus*) nor his racial agrarianism. Haushofer, for instance, acknowledged the ambivalence of modern mobility and urban life:

With the mobilization [of the masses] the continuity of cultural and political life disappears. The consequences are positive and negative ... Rigid morals are also followed by rigid vices and the mobilized worker who is not bound to ancient morals takes part more easily in the progress of modern civilization.⁸⁴

Where Rudorff diagnosed a cultural degradation that was turning "into savagery,"⁸⁵ the Bavarian environmentalists instead saw "spreading historical insight and a growing improvement in the cultural judgement of the people" that provided "responsive ground" for their cause.⁸⁶ Their attitude to modernity was an ambivalent one. They saw "a conflict of interest between the reasonable activities that focused on the practical and the material needs and the also reasonable non-material demands of mankind."⁸⁷ The consequence of this could hardly have been radical opposition. Instead, they demanded a thorough assessment of the consequences of the changes to nature, an analysis of costs and benefits, in which non-material values derived from an intact environment played a major role:

The modern movement that demands the appropriate protection of nature even if major projects are concerned, holds, notwithstanding the majority's opinion of the day, that the great non-material values to be found in the protection and the beauty of nature have to be included in the calculation as major factor. If they are ignored the calculation is false without any doubt.⁸⁸

The goals of the environmentalists were conciliatory, but they were bound to entail economic costs. Authorities, landowners, businesses and the population had to be convinced of the benefit of nature protection for the "common good." To this end the environmentalists developed a number of concepts that dealt with the aesthetic, scientific, patriotic, political, ecological and economic value of the environment.

As mentioned above, nineteenth-century bourgeois culture had evolved an aesthetic approach to the natural world that emphasized the

“beauty of nature” and “delight in nature” (*Naturgenuss*) experienced by contemplating picturesque landscapes. Such landscapes, in Haushofer’s words, “filled the soul with emotions which we need not define or describe, but which still can edify and ennable us. The thoughts produced while warmly contemplating nature will be the healthiest, most honest and natural we will ever be able to think.”⁸⁹ These aesthetic pleasures seemed endangered by an industrial society that depended on ever more intensive modes of production. Gottfried Eigner illustrated similar sentiments in 1908: “Wherever we look at the nature around us, we find the effects of violent human intrusions . . . Picturesque landscapes or single formations of nature which we saw and studied with aesthetic satisfaction or scientific interest only a short while ago have been destroyed or damaged.”⁹⁰ Early environmentalists appealed to these notions when they opposed the closure of riverbanks to the public or the construction of hydroelectric plants. While some historians have accused early environmentalists of obstructing modernization due to “aesthetic scruples,”⁹¹ others criticize their lack of insight into ecology.⁹² However, William Rollins has put forward a persuasive new interpretation: Considering the cultural background of the nineteenth century, approaching environmental degradation from an aesthetic point of view was a logical first step.⁹³

Almost as important for Bavarian nature protection was a line of argumentation that had initially been proposed by Conwentz. Much like the historic building preservation movement of the 1870s, early environmentalists argued that certain unique parts of nature should be preserved as monuments and objects for scientific research on natural history.⁹⁴ Still, Bavarian *Naturpflege* was not restricted to this single line of argumentation and emphasized its differences with other states:

While other states mainly concentrate on the ‘protection of natural monuments,’ Bavaria goes further, as it demands care for nature in general . . . Indeed, it is a basic extension and intensification of nature protection, not only to preserve natural monuments, but also to have the simple and ordinary formations protected and cared for by authorities and private people.⁹⁵

While this concept tried to establish “objective” and “rational” criteria for nature protection, another approach emphasized the patriotic value of nature in the form of *Heimat*:

Since prehistoric times people have received their truest and most lasting impressions from the landscape. In the soul of the landscape the two most important powers of national life are rooted: love for the homeland (*Heimat*) and a nation’s imagination . . . The love for the homeland, in turn, is the basis of every state.⁹⁶

Ernst Rudorff advanced similar arguments and turned them into keystones of his totalitarian and antimodernist worldview. The Bavarian

environmental movement, however, used the *Heimat* idea to supplement other, more important approaches and used it in a context that, in general, tried to reconcile nature and modernity. A further, genuinely modern aspect of nature protection emphasized the benefit for social welfare that intact and accessible nature could bring:

But those millions who year after year are caught between the walls of big cities, working hard, may well ask whether the terrific improvement of traffic will be able to compensate them for the fading beauty of nature. There are enough cities in Germany and elsewhere, where the urban dweller longing for nature even after hours of walking will find nothing but walls and fences, industrial chimneys and warehouses, once in a while a deplorable piece of lawn or a few dusty trees.⁹⁷

Such ideas were behind the Isar Valley Society's fight for recreation areas.

As soon as the environmentalists had taken a moderate position on modernity they were able to argue in economic terms. Already in 1907 Max Haushofer could formulate positions that today are represented by terms such as "sustainability," "intergenerational justice" or "ecotourism":

Finally there are formations of nature that have to be preserved for economic reasons, against the short-term advantage of individuals and in favor of the future and the common good. To cut an apple tree in autumn will certainly bring apples and wood as well, but in the future no more apples whatsoever. Similar actions which are not as blatantly stupid occur over and over again, enacted by men who only look to the small profit of the moment without thinking about the destruction of future values ... Often only small amounts of short-sightedness are necessary to liquidate, for little but easy profit, a natural area that could have been the key to coming riches and continuous delight.⁹⁸

The LAN saw tourist associations and tourist regions as natural allies in the fight against the degradation of nature. For instance, it cooperated with the Alpine spa Bad Tölz to mitigate the effects of the Walchensee plant.⁹⁹ They insisted that such state projects needed to take into account more than just the economic interests of the state as a whole; they should also factor in the impact on the local economy and the interests of the resident, in this case fishermen, tourist facilities, rafting enterprises and forest owners. Furthermore, it was seen as a matter "of a straight sense of justice"¹⁰⁰ (*einfaches Gerechtigkeitsgefühl*) that access to rivers and lakes was not restricted to the state, but also granted to local communities and cities. The fight against the Walchensee project as a whole had a catalytic effect on Bavarian environmentalism. Starting from a primarily aesthetic concept, environmentalists generated economic and even ecologically based arguments. They warned against detrimental effects on the sur-

rounding vegetation that would result from lower river flow. They attributed an increase in the number of agricultural pests to human intrusions into natural ecosystems, such as destroying the hatching places of birds. They also noted the problems created by air and water pollution.¹⁰¹ The LAN requested its members give special attention to projects that "may be potentially dangerous for nature because of the way they are operated (either by emitting smoke, gas, bad smells, noise or wastewater, or by directly depleting local resources like wood and causing deforestation)."¹⁰²

By 1914 the LAN had developed a profound and multidimensional program for the protection of nature and its reconciliation with modernity.¹⁰³ In the programmatic evolution of the LAN, the First World War represented a step backward. Fortunately, it did not suffer the same fate as the *Heimatschutz* movement, which gradually drifted to the political far right, taking up the utopian ideology of the *Volksgemeinschaft* and adopting racist ideas as well as blood-and-soil ideology.¹⁰⁴ It is difficult to locate the BN in the political landscape of the Weimar Republic. Its publications do not provide many direct clues. The environmentalists had already emphasized before 1914 that nature protection was not to be restricted "by party-political considerations or class conflict."¹⁰⁵ On the whole, they were neither advocates nor aggressive opponents of republicanism; they maintained a close relationship with the conservative Bavarian administration, but increasingly lost faith in politics and its capacity to resolve problems, concentrating instead on their own educational work. The course of the war and its outcome had a twofold effect on the BN's program. Firstly, war propaganda and a new political landscape in the 1920s resulted in an emphasis on a patriotic and *Heimat*-centred foundation of nature protection. For example, in 1931, Johann Ruess, secretary of the BN, announced in a radio advertisement: "Whoever joins our cause wants nothing but the protection of our home in a united Germany."¹⁰⁶ The argument remained vague and was often tinged with the idea of a "cultural and moral resurrection of the German people" and of a "new strength."¹⁰⁷ The second effect was equally political. Although people had experienced the destructive power of technology, the German public, including the environmentalists, came to the conclusion that a recovery of Germany's economic and political position could only be achieved by accelerating the speed and scale of modernization.¹⁰⁸ Under such circumstances, nature protection appeared as a minor issue:

Nowadays nature protection cannot raise its voice and warn against the degradation of nature as in those blessed days of peace. The steadfast necessity to rebuild our fatherland urges German technology to extensive and enormous tasks, the implementation of which will cause important changes and a reshaping

of our local (*heimatlich*) landscape and which nature protection has to accept silently.¹⁰⁹

This postwar desire to rebuild a strong Germany endangered many of the goals of the nature protection movement, and the environmentalists had to try to find ways around it. One way was the focus on patriotism. Another was to search for a university-based scientific foundation for nature protection.¹¹⁰ Dealing with large projects and industrial architecture, the BN found a *modus vivendi* by demanding an “appropriate style and a flawless shaping of works of technology.”¹¹¹ However this merely helped it to save face and became absurd when the BN found itself arguing about the color of grid pylons.¹¹²

Surprisingly, initial attempts to amend the foundations of nature protection in the second half of the 1920s came from a direction that had been the starting point of the venture at the turn of the century. It was mainly the landscape painter, Ludwig Bolgiano, chairman of the Isar Valley Society and member of the BN board, who formulated an aesthetic perspective on nature protection that differed from the older static image of the landscape established in the nineteenth century:

We will not find the prime purpose of nature protection, in particular the protection of the landscape, in the perpetuation of certain images of nature that have become dear to us, rather we will go and apply our principle to everything the achievements of our time bring with them.¹¹³

Bolgiano criticized popular images and clichés of nature as “kitsch,” arguing that if such images “are brought to mass circulation among the population they spoil or, rather, poison people’s taste and degrade the nature protection movement in the eyes of its opponents.”¹¹⁴ At the fourth Day for Nature Protection, which was held in Berlin in 1931, Bolgiano demanded those in favor of nature protection be allowed to participate in all forms of planning that had significant implications for the environment.¹¹⁵ Bolgiano’s ideas on landscape protection demonstrate that environmentalists had tried to modernize their program in some respects. On the whole, however, they were unable to continue the promising start of the years before 1914. Paradoxically, this was at least in part the result of the huge success in membership expansion and the extension of the organization all over Bavaria.

When the NSDAP took power in January 1933 the BN was not capable of taking a critical stance on the new regime. During the Weimar Republic it had kept its distance from proponents of a concept of *Heimat* protection that was based on *völkisch* ideas of racial hygiene and agrarian retreat. Its overall outlook, however, did not provide a sufficient basis to

view Nazi propaganda critically. Although the BN had “privatized” nature protection since 1913, its relation to the state was still close. In its understanding, the state was not bound to democratic legitimacy. In May 1933 the BN introduced itself to the new Bavarian Secretary of Education, Hans Schemm, a prominent Nazi figure, as an association which intended to “bring to the people the important cultural idea of nature protection as a strong foundation of the love for home and fatherland and to spread the idea in particular among the youth.”¹¹⁶

Conclusion

Since 1905 Bavarian environmentalists had been trying to implement their particular understanding of a careful and sustainable path to modernization. Their starting point had been a liberal idea that did not reject social and cultural change as a matter of principle. Environmentalism was therefore able to integrate a variety of ideas, including ecology, economic welfare, recreation and a strong concept of landscape aesthetics. However, the First World War and mounting pressure created by the “crises of the age of classical modernity” stalled the program of nature protection and led to a focus on the patriotic idea of *Heimat*. In 1933 Bavarian environmentalists were further away from their original goal than ever. Large parts of their program and organization were limited to the belief in *Heimat* and the state, and both urgently needed renewal.

Notes

This article owes much to the discussions and help I received during my final year at the University of Regensburg and to my supervisor Prof. Dr. Franz J. Bauer. For a more detailed account of this topic, including an analysis of the period from 1933 to 1945, see Richard Hözl, *Naturschutz in Bayern von 1905–1945: der Landesausschuss für Naturpflege und der Bund Naturschutz zwischen privater und staatlicher Initiative*, Regensburger Digitale Texte zur Geschichte von Kultur und Umwelt Band 1 (2005): <http://www.opus-bayern.de/uniregensburg/volltexte/2005/521/>.

¹ Detlev J. K. Peukert, *The Weimar Republic: The Crisis of Classical Modernity* (New York, 1992).

² Wolfgang König, “Massenproduktion und Technikkonsum: Entwicklungslinien und Triebkräfte zwischen 1880 und 1914,” in *Netzwerke: Strom und Stahl 1840–1914*, eds. Wolfgang König and Wolfhard Weber (Berlin, 1993), 265–554; Hartmut Berghoff, “Dem Ziele der Menschheit entgegen”: Die Verheissungen der Technik an der Wende zum 20. Jahrhundert” in *Das neue Jahrhundert: Europäische Zeitdiagnosen und Zukunftsentwürfe um 1900*, ed. Ute Frevert (Göttingen, 2000), 47–78; Hans-Luidger Dienel, “Zweckoptimismus und -pessimismus der Ingenieure um 1900,” in *Der Optimismus der Ingenieure*, ed. Hans-Luidger Dienel (Stuttgart, 1998), 9–24; Joachim Radkau, “Die wilhelminische Ära als ‘nervöses Zeitalter,’ oder: Die Nerven als Netzwerk zwischen Tempo- und Körpergeschichte,” *Geschichte und Gesellschaft* 20 (1994): 211–241.

³ See Kai Buchholz et al., eds., *Die Lebensreform: Entwürfe zur Neugestaltung von Leben und Kunst*, 2 vols. (Darmstadt, 2001); Diethard Krebs and Jürgen Reulecke, eds., *Handbuch der deutschen Reformbewegungen 1880–1933* (Wuppertal, 1998).

⁴ See Friedemann Schmoll, *Erinnerung an die Natur. Die Geschichte des Naturschutzes im deutschen Kaiserreich* (Frankfurt; New York, 2004); Andreas Knaut, "Zurück zur Natur!" *Die Wurzeln der Ökologiebewegung* (Greven, 1993); Raymond H. Dominick, *The Environmental Movement in Germany: Prophets and Pioneers 1871–1971* (Bloomington, 1992); Walter Schoenichen, *Naturschutz—Heimatschutz: Ihre Begründung durch Ernst Rudorff, Hugo Conawetz und ihre Vorläufer* (Stuttgart, 1954); John Alexander Williams, "'The Chords of the German Soul are Tuned to Nature': The Movement to Preserve the Natural *Heimat* from the *Kaiserreich* to the Third Reich," *Central European History* 29 (1996): 339–385; Alfred Barthelmess, *Landschaft, Lebensraum des Menschen: Probleme von Landschaftsschutz und Landschaftspflege geschichtlich dargestellt und dokumentiert* (Freiburg; Munich, 1988), 186–191; Ernst Hoplitschek, *Der Bund Naturschutz in Bayern: Traditioneller Naturschutzverband oder Teil der neuen sozialen Bewegungen* (Berlin, 1984); Arne Andersen and Reinhard Falter, "'Lebensreform' und 'Heimatschutz,'" in *München—Mosenstadt mit Hinterhöfen: Die Prinzregentenzeit 1886–1912*, eds. Friedrich Prinz and Marita Kraus (Munich, 1988), 295–300; Michael Wettengel, "Staat und Naturschutz 1906–1945: Zur Geschichte der Staatlichen Stelle für Naturdenkmalpflege in Preussen und der Reichsstelle für Naturschutz," *Historische Zeitschrift* 257 (1993): 355–399.

⁵ Schoenichen, *Naturschutz—Heimatschutz*, 1.

⁶ In 1954, Schoenichen was still talking about the "receding relations to soil and *Heimat* . . . as the source of essence and true spirit of the German people . . . caused by the poison of modernism" (*fortschreitenden Lockerung der Bindungen an Scholle und Heimat . . . Abwendung von dem Urquell, aus dem unsere gesamte Kultur Sein und Wesen geschöpft hatte . . . latenter, durch das Gift des Modernismus gelähmten Abwehrkräften[n]*), Schoenichen, *Naturschutz—Heimatschutz*, 298. On Schoenichen's ideas on racial hygiene, see Gert Gröning and Joachim Wolschke-Bulmahn, *Die Liebe zur Landschaft, Part 1: Natur in Bewegung* (Munich, 1986), 151–157.

⁷ Klaus Bergmann, *Agrarromantik und Grossstadtfeindlichkeit* (Meisen; Glau, 1970); Jost Hermann, *Grüne Utopien in Deutschland: Zur Geschichte des ökologischen Bewusstseins* (Frankfurt/Main, 1991); Ulrich Linse, *Ökopax und Anarchie: Eine Geschichte der ökologischen Bewegungen in Deutschland* (Munich, 1986); Klaus-Georg Wey, *Umweltpolitik in Deutschland: Kurze Geschichte des Umweltschutzes in Deutschland seit 1900* (Opladen, 1982).

⁸ Thomas Rohkrämer, *Eine andere Moderne? Zivilisationskritik, Natur und Technik in Deutschland 1880–1933*, (Paderborn, 1999); Celia Applegate, *A Nation of provincials: The German Idea of Heimat* (Berkley 1990); Peukert, *The Weimar Republic*; Rolf-Peter Sieferle, *Fortschrittsfeinde? Opposition gegen Industrie und Technik von der Romantik bis zur Gegenwart* (Munich, 1984). This shift of paradigm corresponds to the fading credibility of the *Sonderweg* thesis; see Thomas Nipperdey, "1933 und Kontinuität in der deutschen Geschichte," *Historische Zeitschrift* 227 (1978): 86–111.

⁹ The leading characters of the Bavarian environmental movement up to 1933 were all born around 1850: e.g. Max Haushofer (1840–1907), Gabriel von Seidl (1848–1913), Eduard von Reuter (1855–1942), Karl von Tubeuf (1862–1941) and Johann Ruess (1869–1942).

¹⁰ Rolf-Peter Sieferle, "Grenzen der Umweltgeschichte," *Gaia* 2 (1993): 14–16; Franz-Josef Brüggemeier, *Tschernobyl, 26. April 1986: Die ökologische Herausforderung* (Munich, 1998), 49–128.

¹¹ Brüggemeier, *Tschernobyl*, 67–74; Claus Grimm, "Industriezeitalter: eine geschichtliche Epoche," in *Aufbruch ins Industrie-Zeitalter: Vol. 1 Linien der Entwicklungsgeschichte*, ed. Claus Grimm (Munich, 1985), 11–21; Karl Bosl, "Die 'geminderte' Industrialisierung in Bayern," in *Aufbruch ins Industrie-Zeitalter*, ed. Grimm, 22–39; Karl-Maria Haertle, "Münchens 'verdrängte' Industrie," in *München—Mosenstadt*, eds. Prinz and Kraus, 164–174.

¹² Brüggemeier, *Tschernobyl*, 49. The major importance of population growth for the environment was acknowledged by environmentalists. See for example Max Haushofer, *Der Schutz der Natur*, 2nd ed. (Munich, 1911), 4; or Franz Vollmann, "Die Garchinger Heide als Natur- und Kulturdenkmal," *Das Bayerland* 18 (1907): 447.

¹³ Thomas Nipperdey, *Deutsche Geschichte 1866–1914*, vol. 1 (Munich, 1998), 35–37.

¹⁴ See Dagmar Bäuml-Stosiek, "Grossstadt wachstum und Eingemeindungen: Städtische Siedlungsplanung zwischen Vorsicht und Vorausschau," in *München—Museenstadt*, eds. Prinz and Kraus, 60–69.

¹⁵ Max Haushofer, *Der kleine Staatsbürger: Ein Wegweiser durchs öffentliche Leben für das deutsche Volk*, 3rd ed. (Berlin, 1902), 79.

¹⁶ Brüggemeier, *Tschernobyl*, 51–52.

¹⁷ Reinhard Rürup, "Deutschland im 19. Jahrhundert 1815–1871," in *Deutsche Geschichte*, vol. 3, eds. Reinhard Rürup et al. (Göttingen, 1985), 40–45; Brüggemeier, *Tschernobyl*, 51–62; Joachim Radkau, *Natur und Macht – Eine Weltgeschichte der Umwelt* (Munich, 2000), 237–254.

¹⁸ Nipperdey, *Deutsche Geschichte*, vol. 1, 183.

¹⁹ Ibid., 182–186; Günter Bayerl, "Prolegomena der 'Grossen Industrie': Der technisch-ökonomische Blick auf die Natur im 18. Jahrhundert," in *Umweltgeschichte: Umweltverträgliches Wirtschaften in historischer Perspektive*, ed. Werner Abelshauser (Göttingen, 1994), 52–54; Götz Grossklaus, "Der Naturraum des Kulturbürgers," in *Natur als Gegenwelt*, ed. Götz Grossklaus (Karlsruhe, 1983), 169–195; Jörg Zimmermann, "Zur Geschichte des ästhetischen Naturbegriffs," in *Das Naturbild des Menschen*, ed. Jörg Zimmermann (Munich, 1982), 119–154; Ruth Groh and Dieter Groh, "Von den schrecklichen zu den erhabenen Bergen: Zur Entstehung ästhetischer Naturerfahrung," in *Weltbild und Naturaneignung: Zur Kulturgeschichte der Natur*, eds. Ruth Groh and Dieter Groh (Frankfurt/Main, 1991).

²⁰ Nipperdey, *Deutsche Geschichte*, vol. 1, 703; Cornelia Klinger, *Flucht, Trost, Revolte: Die Moderne und ihre ästhetischen Gegenwelten* (Munich, 1995), 165.

²¹ Wilhelm Heinrich Riehl, "Das landschaftliche Auge (1850)," in *Culturstudien aus drei Jahrhunderten*, ed. Wilhelm Heinrich Riehl (Stuttgart, 1859), 70.

²² Radkau, *Natur und Macht*, 263–265; Monika Wagner, "Das Gletschererlebnis," in *Natur als Gegenwelt*, ed. Grossklaus, 235–263. Manfred Hettling's ideas on the role of the Alps for the building of a Swiss national identity may prove valid for Bavaria as well, see "Die Schweiz als Erlebnis," in *Die Konstruktion einer Nation: Nation und Nationalisierung in der Schweiz, 18.–19. Jahrhundert*, eds. Urs Atermatt, Catherine Bossart-Pfluger and Albert Tanner (Zurich, 1998), 19–32.

²³ Nipperdey, *Deutsche Geschichte*, vol. 1, 176.

²⁴ See the satirical account by Max Haushofer, "Über Alpenreisen," *Zeitschrift des Deutschen Alpenvereins* 2 (1870–71): 1–15; Clemens Alexander Wimmer, "Die Alpen: Vom Garten Europas zum Stadion Europas," in *Mit den Bäumen sterben die Menschen: Zur Kulturgeschichte der Ökologie*, ed. Jost Hermand (Cologne, 1993), 81–117.

²⁵ Grossklaus, "Der Naturraum des Kulturbürgers," 195.

²⁶ Max Haushofer, *Bayerns Hochland und München*, 2nd ed. (Bielefeld; Leipzig, 1911), 73. Along with modern means of transport, landscape painters again played an important role in the "colonization" of the Bavarian Alps. See Klaus J. Schönmetzler, "Die Münchner Malschule rückt Oberbayern ins Bild," in *Berichte zu Natur- und Heimatschutz: Laufener Seminarbeiträge 4/1992* (Laufen; Salzburg, 1992), 34–49.

²⁷ Knaut, "Zurück zur Natur," 11–14; or Rolf Petri, "Deutsche Heimat 1850–1950," *Comparativ* 11 (2001): 77–80.

²⁸ Petri, "Deutsche Heimat," 83.

²⁹ The work was published in four volumes between 1851 and 1869. Riehl's works had a considerable impact on the early environmental movement. See Ernst Rudorff, *Heimatschutz* (Leipzig, 1901), 49–51; Gottfried Eigner, *Naturpflege in Bayern* (Munich, 1908), 60; Hans Welzel, *Einführung in die Geschäfte der Naturpflege. Für die bayerischen Organe der Naturpflege* (Munich, 1907), 1–2.

³⁰ Wilhelm Heinrich Riehl, *Land und Leute*, 5th ed. (Stuttgart, 1861), 136–137. For the role of the *Heimat* idea for the building of German nationality, see Petri, "Deutsche Heimat," 125–127.

³¹ Riehl, *Land und Leute*, 60–69; on Riehl, see Bergmann, *Agrarromantik und Grossstadtfeindlichkeit*, 39.

³² Petri, *Deutsche Heimat*, 125–127.

³³ The movement for the protection of *Heimat* had turned away from the protection of nature in the first decade of the twentieth century and concentrated its capacities on local culture as expressed in arts and crafts as well as architecture. See Ina-Maria Greverus, *Auf der Suche nach Heimat* (Munich, 1979), 9; Knaut, "Zurück zur Natur," 392–94.

³⁴ Ibid., 161–162.

³⁵ Eigner, *Naturpflege*, 68; Schoenichen, *Naturschutz—Heimatschutz*, 86–98.

³⁶ Eigner, *Naturpflege*, 67. For the movement's international relations see Anna-Katharina Wöbse, "Der Schutz der Natur im Völkerbund—Beginn einer Weltumweltpolitik," *Archiv für Sozialgeschichte* 43 (2003): 177–190.

³⁷ Hans Bössl, "Gabriel v. Seidl," *Oberbayerisches Archiv* 88 (1966): 5–112.

³⁸ Bavarian State Archives Munich (hereafter BayHSTA) MK 14474, leaflet of the Isar Valley Society (May 1902).

³⁹ BayHSTA MK 14474, letter from the Department of the Interior (May 21, 1902) regarding a complaint of the Isar Valley Society. On urban planning in Munich see Bäuml-Stosiek, "Grosstadtwachstum und Eingemeindungen," 60–69; Eigner, *Naturpflege*, 90–93; Ludwig Bolgiano, "Isartal und Isartalverein," *Das Bayerland* 36 (1925): 435–438; Reinhard Falter, "Achtzig Jahre 'Wasserkrieg': Das Walchensee-Kraftwerk," in *Von der Bitschrift zur Platzbesetzung: Konflikte um technische Grossprojekte*, eds. Ulrich Linse et al. (Berlin; Bonn, 1988), 63–127.

⁴⁰ BayHSTA MK 14474, protocol of the meeting of administrative departments on December 20, 1904; "Protocol of the meeting on February 20, 1905, on nature protection," *Blätter für Naturschutz und Naturpflege* 13 (1930); "Protocol of the first meeting of the LAN on October 14, 1905," *Blätter für Naturschutz und Naturpflege* 13 (1930).

⁴¹ BayHSTA MK 14474, petition of the Alpenvereinssektion München (January 28, 1904). The impact of Conwentz' ideas about the conservation of natural monuments is obvious. Conwentz had traveled to Bavaria several times to promote his concept; see Hugo Conwentz, *Der Schutz der natürlichen Landschaft, vornehmlich in Bayern* (Berlin, 1907), v–ix.

⁴² BayHSTA MA 92392, letters from the Department of the Interior to the State Department (May 17, 1906, and October 27, 1908); Eigner, *Naturpflege*, 115–117. Only minor amendments were made in the 1920s. See "Gesetzliche Bestimmungen über den Naturschutz in Bayern," *Blätter für Naturschutz und Naturpflege* 15 (1932): 97–101; "Pflanzenschutz in Bayern," *Blätter für Naturschutz und Naturpflege* 9 (1926): 114; H. Dohn, "Der Naturschutz, insbesondere der Schutz des Orts- und Landschaftsbildes in Bayern nach dem derzeitigen Stand der Gesetzgebung," *Blätter für Naturschutz und Naturpflege* 13 (1930): 117–123.

⁴³ Winfried Speitkamp, *Die Verwaltung der Geschichte: Denkmalpflege und Staat in Deutschland 1871–1933* (Göttingen, 1996), 365–395. The environmental movement, which had fought bitterly for a law on nature protection during the Weimar years, greeted it with enthusiasm in 1935. See Theodor Künkele, "Reichsnaturschutzgesetz vom 26. Juni 1935: Vorwort," *Blätter für Naturschutz und Naturpflege* 18 (1935): 98; and Staatliche Stelle für Naturdenkmalpflege, ed., *Erster Deutscher Naturschutztag* (Berlin, 1925), 559.

⁴⁴ BayHSTA MK 14474, protocol of the meeting of administrative departments on December 20, 1904; BayHSTA MK 14475, letter from the Department of the Interior (September 9, 1921).

⁴⁵ BayHSTA MK 14474, Letter from the VDI to the Department of the Interior (February 17, 1905). Emphasis in the original.

⁴⁶ "Protocol of the meeting on February 20, 1905," *Blätter für Naturschutz und Naturpflege* 13 (1930): 70.

⁴⁷ BayHSTA MK 14474, protocol of the meeting of administrative departments (December 20, 1904), 2.

⁴⁸ "Protocol of the meeting on February 20, 1905," *Blätter für Naturschutz und Naturpflege* 13 (1930): 70.

⁴⁹ Werner K. Blessing, "Bayerns Verwaltung im 20. Jahrhundert: Bemerkungen zu Zeittendenzen, Forschungsstand und Perspektiven," *Zeitschrift für Bayerische Landesgeschichte* 61 (1998): 65.

⁵⁰ Karl Möckl, "Gesellschaft und Politik während der Ära des Prinzregenten Luitpold: Ein Beitrag zur Vorgeschichte der Revolution in Bayern," in *Bayern im Umbruch: Die Revolution von 1918, ihre Voraussetzungen, ihr Verlauf und ihre Folgen*, ed. Karl Bosl (Munich; Vienna, 1969), 14–23, 28–29.

⁵¹ Bayerischer Landesausschuss für Naturpflege, ed., *25 Jahre Bayerischer Landesausschuss für Naturpflege* (Rothenburg/Tauber, 1930), 34–37.

⁵² Dieter Albrecht, "Die Prinzregentenzeit 1886–1912/13," in *Handbuch der bayerischen Geschichte*, vol. 4, ed. Max Spindler (Munich, 1974), 349–361; Werner Conze, "Konstitutionelle Monarchie – Industrialisierung: Deutsche Führungsschichten um 1900," in *Deutsche Führungsschichten der Neuzeit: Eine Zwischenbilanz*, ed. Günther Franz (Boppard, 1980), 173–203; Applegate, *A Nation of Provincials*, 61–62.

⁵³ "Protocol of the first meeting of the LAN on October 14, 1905," *Blätter für Naturschutz und Naturpflege* 13 (1930): 10.

⁵⁴ Eigner, *Naturpflege*, 115–116.

⁵⁵ Haushofer, *Der Schutz der Natur*; Welzel, *Geschäfte der Naturpflege*; Eigner, *Naturpflege*. In 1925 a bibliography of nature protection and in 1928 an inventory of protected species were added: Hans Welzel and Johann Ruess, *Der Naturschutz im deutschen Schrifttum* (Munich, 1925); Hans Welzel, *Verzeichnis der in Bayern geschützten Pflanzen und Tiere nach dem Stande vom 1. Januar 1928* (Munich, 1928).

⁵⁶ Franz Vollmann, "Die Pflanzenschutz- und Schongebiete in Bayern," *Beiträge zur Naturdenkmalpflege* 5 (1916): 1–74.

⁵⁷ Staatsministerium des Innern, Oberste Baubehörde, Abteilung für Wasserkraftausnutzung und Elektrizitätsversorgung, ed., *Das Walchensee-Werk* (Munich, 1921), 1–13.

⁵⁸ "Isar und Walchensee," *Heimatschutz* 4 (1908): 49; "Gutachten des Landesausschusses für Naturpflege vom 3. Februar 1907," in *Denkschrift zum Walchenseuprojekt* (Munich, 1909).

⁵⁹ Staatsministerium des Innern, ed., *Das Walchensee-Werk*, 15.

⁶⁰ Gabriel von Seidl, "Die Isar und das Walchensee-Projekt," *Heimatschutz* 4 (1908): 49–51; Albert Schmidt, "Das Schicksal und die Zukunft des Walchensees und der Isar," *Heimatschutz* 4 (1908): 52–59; *Stenographische Protokolle der Kammer der Abgeordneten*, 162nd session (July 11, 1908), 19–20.

⁶¹ "Gutachten des Landesausschusses für Naturpflege vom 3. Februar 1907," in *Denkschrift zum Walchenseuprojekt*.

⁶² *Kammer der Abgeordneten*, 162nd session (July 11, 1908), 20. In the end the plan that was chosen made no mention of nature protection, as the LAN bitterly complained. "Eingabe des Landesausschusses für Naturpflege an das k. Staatsministerium des Innern am 7. August 1909," in *Denkschrift zum Walchenseuprojekt*, 7.

⁶³ *Kammer der Abgeordneten*, 356th session (July 21, 1910), 557.

⁶⁴ Falter, "Wasserkrieg," 91–92; Andersen and Falter, "'Lebensreform' und 'Heimatschutz,'" 297–298;

⁶⁵ "Zum Walchenseuprojekt. Erneute Vorstellung des Landesausschusses für Naturpflege" (April 30, 1910), *Heimatschutz* 7 (1911): 70.

⁶⁶ Falter, "Wasserkrieg," 124.

⁶⁷ "Satzungen des Bund Naturschutz in Bayern (E.V.)," *Blätter für Naturschutz und Naturpflege* 1 (1918): 11.

⁶⁸ "Bericht über die Mitgliederversammlung vom 4. Mai 1918," *Blätter für Naturschutz und Naturpflege* 1 (1918): 2–10; "Bericht über die Mitgliederversammlung vom 13. Juni 1922," *Blätter für Naturschutz und Naturpflege* 5 (1922): 4–6.

⁶⁹ "Rundfunkwerbesprüche für Naturschutz," *Blätter für Naturschutz und Naturpflege* 15 (1932): 167.

⁷⁰ "Bericht über die Mitgliederversammlung vom 4. Mai 1918," 10; "Aus unseren Bezirksgruppen," *Blätter für Naturschutz und Naturpflege* 15 (1932): 174.

⁷¹ Other environmental organizations lost large numbers of members during World War I and stagnated in the 1920s. The Verein Naturschutzwand, for example, retained only ten thousand members in 1926 of allegedly forty thousand in 1914; see Gröning and Wolschke-Bulmahn, *Die Liebe zur Landschaft*, 179.

⁷² The data is taken from *Blätter für Naturschutz und Naturpflege* 1 (1918) -16 (1943).

⁷³ Josef Warmuth, "Der Naturschutz in der Landbevölkerung," *Blätter für Naturschutz und Naturpflege* 10 (1927): 92; Johann Ruess, "Zur Aufklärung und Werbung," *Blätter für Naturschutz und Naturpflege* 7 (1924): 22; Gustav Gaggell, "Natur- und Heimatschutz in den höheren Schulen," *Blätter für Naturschutz und Naturpflege* 11 (1928): 7–8; Otto Hoffeūs, "Bund Naturschutz und die bayerischen höheren Schulen," *Blätter für Naturschutz und Naturpflege* 12 (1929), 75–78.

⁷⁴ BayHSTA MK 14474, memorandum on a nature park at lake Königssee (December 9, 1919).

⁷⁵ Karl von Tubeuf, "Die Gründung des Naturschutzgebietes am Königssee," *Blätter für Naturschutz und Naturpflege* 13 (1930): 1; Bund Naturschutz in Bayern, ed., *Das Naturschutzgebiet am Königssee in den Berchtesgadener Alpen* (Munich; Berchtesgaden, 1921); BayHSTA MK 14474, letter from the LAN (December 9, 1919) and memorandum on a nature park at lake Königssee (December 9, 1919); BayHSTA MK 14475, letter from the Department of the Interior (May 13, 1920), letter from the LAN and the BN (May 22, 1920) and a letter from the Department of the Interior (February 8, 1922).

⁷⁶ Anton Ziegler, "Die Naturschutzgebiete im Karwendel," *Das Bayerland* 36 (1925): 438–439; Hermann Ross, "Naturschutz," in *Die Bayerischen Alpen* (Berlin, 1926), 74–80; Bayerischer Landesausschuss für Naturpflege, ed., *25 Jahre Bayerischer Landesausschuss*, 10–11; Hermann Ross, "Naturschutz und Schongebiete in Bayern," *Blätter für Naturschutz und Naturpflege* 12 (1929): 32–37, 148.

⁷⁷ Bayerischer Landesausschuss für Naturpflege, ed., *25 Jahre Bayerischer Landesausschuss*, 15; *Stenographische Protokolle des Bayerischer Landtags*, 193rd Session (February 7, 1928); "Ein ernstes Wort," *Blätter für Naturschutz und Naturpflege* 7 (1924): 17–18.

⁷⁸ Jeffrey Herf, *Reactionary Modernism* (Cambridge, 1984), 12–13.

⁷⁹ Andreas Knaut, "Ernst Rudorff und die Anfänge der deutschen Heimatbewegung," in *Antimodernismus und Reform. Beiträge zur Geschichte der deutschen Heimatbewegung*, ed. Edeltraud Klüting (Darmstadt, 1991), 20–49.

⁸⁰ Rudorff, *Heimatschutz*, 8–9.

⁸¹ *Ibid.*, 99.

⁸² Haushofer, *Der Schutz der Natur*, 4.

⁸³ Vollmann, "Die Garchinger Heide," 447; BayHSTA MK 14474, public appeal of the Isar Valley Society (May 1902).

⁸⁴ Max Haushofer, *Der Industriebetrieb. Ein Handbuch der Geschäftslehre für technische Beamte, Industrielle, Kaufleute etc. sowie zum Gebrauch an technischen Schulen*, 2nd ed. (Munich, 1904), 190; Max Haushofer, *Das deutsche Kleingewerbe in seinem Kampfe gegen die Grossindustrie* (Berlin, 1885), 33–35.

⁸⁵ Rudorff, *Heimatschutz*, 81.

⁸⁶ BayHSTA MK 14474, petition of the German Alpine Society (January 28, 1904).

⁸⁷ Vollmann, "Die Garchinger Heide," 447; Welzel, *Geschäfte der Naturpflege*, 6; Haushofer, *Der Schutz der Natur*, 6; Eigner, *Naturpflege*, 60.

⁸⁸ Seidl, "Die Isar," 51; Welzel, *Geschäfte der Naturpflege*, 6.

⁸⁹ Max Haushofer, *Lebenskunst und Lebensfragen. Ein Buch für's Volk* (Ravensburg, 1906), 378–379.

⁹⁰ Eigner, *Naturpflege*, 8.

⁹¹ Bergmann, *Agrarromantik und Grossstadtfeindlichkeit*, 128–135.

⁹² Arne Andersen, "Heimatschutz: Die bürgerliche Naturschutzbewegung," in *Besiegte Natur. Geschichte der Umwelt im 19. und 20. Jahrhundert*, eds. Franz-Josef Brüggemeier and Thomas Rommelspacher (Munich, 1987), 143–154.

⁹³ Rollins, *A Greener Vision of Home*, 26.

⁹⁴ Speitkamp, *Die Verwaltung der Geschichte*, 82–92. Franz Vollmann's argument for the conservation of the heathland near Munich provides an intriguing example of this scientific approach; Vollmann, "Die Garchinger Heide," 447–448, 459–461, 475–477.

⁹⁵ BayHSTA MA 92394, letter from the Department of the Interior (November 14, 1913). Gottfried Eigner, "Der Schutz der Naturdenkmäler insbesondere in Bayern," *Naturwissenschaftliche Zeitschrift für Land- und Forstwirtschaft* 3 (1905): 379.

⁹⁶ Max Haushofer, *Die Landschaft* (Bielefeld; Leipzig, 1903), 25.

⁹⁷ Haushofer, *Der Schutz der Natur*, 6. Eigner regards the quarters of the English working class as a positive example in this respect; *Naturpflege*, 62–63. Certainly a utilitarian attitude in the idea of recreation for the working class cannot be fully denied.

⁹⁸ Haushofer, *Der Schutz der Natur*, 5.

⁹⁹ *Denkschrift zum Walchenseuprojekt*; Schmidt, "Das Schicksal und die Zukunft des Walchensees," 53, 56. Ernst Rudorff, on the contrary, regarded tourism as "prostitution" of nature that would only lead to the corruption of the rural social order through the influx of urban travelers; Rudorff, *Heimatschutz*, 51–65.

¹⁰⁰ Robert Piloty, "Tölz an der Isar. Ein Rechtsgutachten, Würzburg," in *Denkschrift zum Walchenseuprojekt*, 15–21.

¹⁰¹ Seidl, "Die Isar," 50; Eigner, *Naturpflege*, 28, 66; Haushofer, *Der Schutz der Natur*, 8.

¹⁰² Welzel, *Geschäfte der Naturpflege*, 14.

¹⁰³ For a differing opinion, see Andersen and Falter, "'Lebensreform' und 'Heimatschutz,'" 299.

¹⁰⁴ A representative collection of the ideas and concepts of the movement can be found in *Gesellschaft der Freunde des deutschen Heimatschutzes*, ed., *Der deutsche Heimatschutz. Ein Rückblick und Ausblick* (Munich, 1930). Winfried Speitkamp, "Denkmalpflege und Heimatschutz in Deutschland zwischen Kulturkritik und Nationalsozialismus," *Archiv für Kulturgeschichte* 70 (1988): 158–166; Sieferle, *Fortschrittsfeinde*, 193–205.

¹⁰⁵ Haushofer, *Der Schutz der Natur*, 16.

¹⁰⁶ Johann Ruess, "Vom Sinn des Naturschutzes," *Blätter für Naturschutz und Naturpflege* 14 (1931): 120.

¹⁰⁷ Josef Warmuth, "Der Anteil des Persönlichen am Naturschutz," *Blätter für Naturschutz und Naturpflege* 13 (1930): 25; Reinhard Wiesend, "Von der Arbeit der Bezirksgruppen," *Blätter für Naturschutz und Naturpflege* 12 (1929): 24; Eduard von Reuter, "Vom 1. Deutschen Naturschutztag in München," in *Blätter für Naturschutz und Naturpflege* 8 (1925): 8. However, no traces of racialist or anti-Semitic thinking can be found in the publications of the BN. On the contrary, in 1931 a speech on "nature protection and Jewishness" (*Naturschutz und*

Judentum) that asserted the affinity of the Jewish faith for nature protection was well received by the BN; *Blätter für Naturschutz und Naturpflege* 14 (1931): 170.

¹⁰⁸ Rohkrämer, *Eine andere Moderne*, 243–270.

¹⁰⁹ Johann Ruess, "Vom Sinn des Naturschutzes," 119–120.

¹¹⁰ Johann Ruess, "Naturschutz und Hochschule," *Blätter für Naturschutz und Naturpflege* 13 (1930): 84–87.

¹¹¹ *Blätter für Naturschutz und Naturpflege* 9 (1926): 118.

¹¹² Bayerischer Landesausschuss, ed., *25 Jahre Bayerischer Landesausschuss*, 14.

¹¹³ Ludwig Bolgiano, "Die Landschaft, ihr Schutz und der Künstler," *Blätter für Naturschutz und Naturpflege* 15 (1932): 8–9.

¹¹⁴ Ludwig Bolgiano, "Grenzen oder Schranken," *Blätter für Naturschutz und Naturpflege* 11 (1928): 19.

¹¹⁵ Ludwig Bolgiano, "Natur und Landschaft," in *Vierter Deutscher Naturschutztag in Berlin vom 8. bis 12. April 1931*, ed. Staatliche Stelle für Naturdenkmalpflege in Berlin (Berlin, 1932), 56.

¹¹⁶ BayHSTA MK 40501, letter from the BN (May 4, 1933).

THE WORLD ACCORDING TO HARRO: MENTALITIES, POLITICS AND SOCIAL RELATIONS IN AN EARLY MODERN COASTAL SOCIETY

Marie Luisa Allemeyer

In his well-known work *La Peur en Occident* the French historian Jean Delumeu observes: "In the past, there is one place where the historian is certain to find open and unconcealed fear: this place is the sea."¹ If one investigates humanity's changing relationship to the sea by considering the coastal communities of North Friesland from the perspective of environmental history, one is certain to encounter in the secondary literature an image of coastal dwellers that is as homogenous and undifferentiated as that presented by the French historian. According to this picture, life on Schleswig-Holstein's western coast has always been shaped by humans' struggle with the ocean.

The image of "the free Frisian" as the prototypical coastal dweller has its roots in the era of the formation of the German state.² The version of this image that has persisted to the present day, however, was created by the National Socialists. The Nazis propagated an image of the inhabitants of the North Sea coast that was dominated by a warlike confrontation between man and the sea. According to this image, the "heroic" marshlanders' conquest of nature was analogous to the victorious struggle of all Germans fighting against foreign enemies. In 1935, Walther Schoenichen, one of the leaders of the Nazi environmental protection campaign (and to whom the environmental movement still refers uncritically), described life on the North Sea coast as "the uninterrupted struggle of a tough Nordic race against the surges."³ In 1931, the so-called *Heimatpolitiker* Rudolf Muuß⁴ observed colloquially that although *der blanke Hans*, a popular term for the North Sea, had always been "North Friesland's greatest nemesis," it had made the Frisians "who and what they are: full of true love for their homeland, of defiance, and of a sense of freedom."⁵ Muuß continues that the Frisians, destined from birth to be pitted against this watery element, "have fought against the North Sea, the mortal enemy of the marshes, and they have conquered it with their spades."⁶

Though such images of North Friesland's inhabitants are seldom used for political purposes these days, the assumption which underpins this image—that of a hostile confrontation between humanity and the sea—is still widespread. Indeed, the author of a 1999 study claimed that "the history of North Friesland has been shaped by the struggle of man against the sea, of the dike against the floodtides."⁷ This assumption,

perpetuated by a large body of older secondary literature, has not only been retained in recent survey works; it can also be discerned in more critical studies which claim to offer new paradigms of coastal society.⁸ By taking for granted the assumption of a combative relationship between coastal dwellers and the ocean, and by working from the same body of published sources, the authors of these critical studies have been unable to adopt new perspectives on humanity's encounter with the sea throughout history.

Rather than presupposing a primal opposition between people and the sea, the present study aims to understand coastal life in the seventeenth and early eighteenth centuries from the perspective of coastal dwellers themselves. How did they see the world, and how did they position themselves and the sea in the context of their worldview?⁹

Because the aim of the present study is to determine how the farmers of North Friesland perceived life in their coastal communities, neither the contemporary scholarly discourse nor the statements and mandates of the secular and religious authorities occupy a central place in this investigation. Instead, the focus is on texts written (or claimed to have been written) by the marshlanders themselves.¹⁰

Unfortunately for the researcher, the seventeenth-century inhabitants of North Friesland did not leave behind any personal testimonials in the strict sense of the word.¹¹ This does not mean, however, that they did not produce any documents. What at first glance appears to be a lack of source material is partially compensated for by texts created by marshlanders in the context of disputes with their neighbors and with local and state authorities.

It is not surprising that one of the most frequent topics of dispute in the coastal society of North Friesland was the dike. Numerous complaints, petitions and recommendations for mediation which document the conflicts surrounding the construction, upkeep and repair of the dikes still exist. Because dike construction was a prerequisite for marshland settlement (which meant that the building, upkeep and repair of dikes was central to the affairs of coastal society), dike disputes were influenced by various political and social conflicts, as well as by the worldviews of the participants. Conflict over the dikes prompted the usually silent marshlanders to speak at considerable length. In an attempt to justify their positions, they articulated arguments that provide glimpses of their concepts of natural, social and political order. Rather than reiterating the same superficial observations about life in a coastal community that have appeared in past studies, an investigation based on sources such as these can grant new insights into people's perception of nature in the early modern period.

A quick glance at the landscape of Schleswig-Holstein's western coast creates an impression of how prominent the dike was (and still is) in the lives of the inhabitants. The so-called "main dikes" (*Hauptdeiche*)—which can reach a height of nine meters and a width of seventy meters—separate the mud flats leading to the ocean from the agrarian lands. Further inland are many former "outer dikes" (*Aussendeiche*), known today as "middle dikes" (*Mitteldeiche*) or "sleeping dikes" (*Schlafdeiche*). Today they serve mainly as a reserve dike-line which demarcates patches of land called polders (*Köge*) that were won from the sea long ago. Many of the *Mitteldeiche* have been covered with asphalt in recent years and are now used as roads. Houses frequently line the tops of these massive structures, which are suited perfectly for elevating and protecting homes during the occasional flood. At those places along the *Mitteldeiche* where roads tunnel through their sides, wooden planks stand at the ready so that the dikes can be sealed in the event of high water, a fact which testifies to the importance even today of the *Mitteldeiche* as a "second line of protection" against the sea.

In addition to helping shape the physical contours of North Friesland, the dike played a key role in determining the region's beginnings as well as its later development. Indeed, dikes are what made a long-term habitation of the marshes possible. They allowed the settled and cultivated areas to expand whilst also protecting the land and the property—as well as the lives—of the resident population. By building dikes, the inhabitants of Schleswig Holstein's western coast attempted to turn dangerous natural conditions to their benefit by drawing a clear line of separation between the "wild sea" and the cultivated lands, between a hostile "outer world" (*Butenwelt*) and a hospitable "inner world" (*Binnenwelt*). Thus, the dike not only made possible the habitation and expansion of the marshlands, it also shaped the mentality of their inhabitants in lasting ways.

The dike also exerted a powerful influence on the structure of coastal society because its building and upkeep required a high degree of social organization. "Ring dikes" (*Ringdeichanlagen*), first introduced on Schleswig-Holstein's western coast in the twelfth century, replaced the earlier method of settlement through the creation of scattered mounds of earth (*Warft* or *Wurt*). Since a single dike could protect several villages at once, and since the construction and maintenance of a dike necessitated far greater sums of money than any individual could muster, marshlanders were forced to reach group decisions with respect to the dikes. Associations formed for this purpose played a prominent role in North Frisian society dating back to the region's earliest efforts at dike building. As dike construction increased over time, these associations assumed even greater importance.

The dike not only shaped the inner structure of North Friesland's society by initiating the creation of communal organizations, it also contributed to the formation of that society's outer structure, in the sense that it was a major factor in the marshlanders' relationship to their rulers,¹² who over the course of the seventeenth century increasingly came to recognize the dikes' importance for the region. The duchies of Schleswig and Holstein increased spending on their military and administrative apparatus as well as on princely representation, resulting in a severe shortage of funds. With the state coffers depleted, territorial princes began to take a greater interest in the profitable marshlands, whose contributions had long formed an important source of income. In order to increase and safeguard this revenue source, the princes tried to increase their influence over the diking of new lands, as well as over the protection of lands already won from the sea. Their attempts to gain greater control over the dikes often met with resistance from the population, who wanted to maintain their traditional rights and autonomies. The shoring up of new marshland and the protection of lands already won from the sea in North Friesland were more closely associated with the rulers' attempts to broaden their claims to sovereignty than the marshlands' peripheral location on Schleswig-Holstein's western coast might suggest.

Aside from its social and political significance, the dike was a central element in the marshlanders' worldviews, which were heavily influenced in the seventeenth and early eighteenth centuries by religious concerns. In the eyes of coastal dwellers, the building of a dike represented an act of human intervention in God's creation, an intervention that could be carried out only with His blessing. While the successful completion of a dike was taken as a sign of the project having received God's sanction, breaches of the dike and other damage caused by storms were interpreted as divine punishments which the people believed they had brought upon themselves owing to their sinful way of life.¹³

Indeed, dike construction and repair, the organization and distribution of work related to the dike, investigations into the causes of breaches and—last but not least—public disputes concerning the dikes were all processes of social interaction that took center stage in North Friesland's coastal communities. To some extent the dike can even be regarded as the materialization of the concepts, beliefs and attitudes of the North Frisians, for these things informed their every action with respect to the dikes.

These concepts, beliefs and attitudes became readily apparent in those cases when the marshlanders perceived reality to be at odds with their worldviews. Such cases often resulted in violent conflicts that sometimes dragged on for several years and have left behind a paper trail in the form of complaints and petitions. These conflicts cannot be dismissed as the result of an inherent belligerency in the people. Rather, given the

dike's central importance in coastal society, disputes surrounding the dikes must be regarded as the expression of fundamental social conflicts that were a product of the time. Dike disputes functioned as a forum for diverse processes of social negotiation. These negotiations had become necessary due to the fact that society's ideas of order had been thrown into question by rapidly shifting political and social conditions, by changing mentalities and by the scientific and technical innovations of the seventeenth and eighteenth centuries.

In what follows, several case studies are presented to illustrate the extent to which analyses of dike disputes can grant insight into aspects of social, political and religious life on Schleswig-Holstein's western coast in the seventeenth and eighteenth centuries.

“Dike Solidarity”: A Contested Principle of Marshland Society

Any inquiry into the dike's influence on social structures necessarily entails a consideration of the communal organizations created by marshlanders to build and to maintain the dikes, which in turn leads to a consideration of the issue of dike solidarity, commonly regarded as a characteristic element of North Frisian society.

In fact, the larger dike projects—which began as far back as the twelfth century and which encompassed multiple villages as well as their fields—required the banding together of all those whom the dike would protect. These associations were at first congruent with the parish and agrarian organizations already in place, yet as the building of dikes increased, associations formed for dike maintenance came to extend far beyond parish boundaries. These dike associations were organized for the purpose of providing emergency assistance and funds to members. Emergency assistance meant that in the case of damage to the dike, the member parishes of the association sent materials and help to the affected communities. Members received nothing in exchange for their assistance other than the certainty that, if they themselves needed help in the future, they could call upon the others. The dike association's second purpose—to make funds available—applied more to everyday life. A complicated accounting system ensured that the costs of dike upkeep and repair were spread among members. Some means of splitting costs was essential, for as time went on and dikes proliferated, the inhabitants of polders which had been won from the sea in years past benefited when additional land separating themselves from the water was secured through the erection of a new dike. This meant that the residents of older lands did not have to devote as much time and attention to maintaining their dikes, which no longer directly bordered the sea. The dike associations, however, saw to it that costs continued to be spread by requiring the inhabitants of the

older lands to contribute funds for the maintenance of new dikes in neighboring communities. The amount of this contribution was a frequent subject of dispute, as was the extent to which a parish could afford to curtail spending on its own dike when a new dike was built closer to the ocean. Such disputes are interesting because they reveal a questioning of the meaning, the value and the limits of the concept of dike solidarity.

One can see marshlanders questioning the concept of dike solidarity in a complaint submitted to the Duke of Gottorf in 1628 by the inhabitants of Tetenbüll, a parish on the Eiderstedt peninsula.¹⁴ Tetenbüll's residents felt that they had been unjustly called upon to assist in the repair of a dike in the neighboring parish Osterhever, which had been damaged in a storm:

Residents of the parish of Osterhever have recently complained to Your Highness about damages to their dike which are not to be found, and they have once again sought to retain . . . our assistance . . . We cannot neglect to bring to light the foolishness of the supplicants' claim (as well as the legitimacy of our refusal to respond to their call for help), for they had at first stated that several hundred meters of the dike had collapsed . . . when in truth this was not the case, for the waves were not as large as they claimed them to have been.¹⁵

Tetenbüll's petitioners thus called into doubt the extent of the damage to the dike, which Osterhever's residents asserted had been ruined along several hundred meters, allowing water to erode subsoil at its foundation. Beyond suggesting that the damage had been exaggerated, Tetenbüll's residents expressed doubts about whether Osterhever's call for help was justified. They argued that the neighboring parish had failed to maintain its dike due to laziness, and therefore the people of Osterhever should be held responsible for the catastrophe that had befallen them.

Although . . . we must admit that Osterhever's dike was severely damaged, it is nevertheless true that this damage occurred not so much through the rushing waters . . . but through the people's own negligence. They did not erect their dike at the proper time nor did they reinforce and repair it occasionally as other parishes do. While we and others have spent many thousands of *Reichstaler* on improvements to our dike, and poured our sweat and labor into it, the people of Osterhever have avoided working on their dike and have allowed it to deteriorate from one year to the next.¹⁶

For this reason, and because they believed that by the grace of God Osterhever's residents would be able to repair the dike themselves, the Tetenbüll petitioners asked that

the people of Osterhever's request for aid be dismissed and that they be told to work more diligently, both for their own good and so that the lethargic dike

workers are not given further cause to be lazy. Otherwise great confusion would arise in the land as everyone would abandon his dike to the assistance of others.¹⁷

While the ostensible object of dispute was the dike, the judgmental tone of the Tetenbüll petitioners' arguments is suggestive of a deeper conflict between the two parishes, a conflict that involved normative ideas of diligence, duty and order. In addition, one gets a sense of the complicated network of relationships which bound the disputants to varying degrees, relationships which were not limited to interactions between the marshlanders, but also included the territorial prince and, to some extent, God (whose support the residents of Osterhever would receive if they only set their shoulders to the wheel). These relationships formed three main aspects of the world that was Schleswig-Holstein's western coast in the Early Modern period.

The Tetenbüll petitioners' ideas of order can be seen in their questioning of whether Osterhever's call for help was justifiable. In their view, the request for emergency assistance was not legally binding, because Osterhever's residents were themselves to blame for the calamity. Tetenbüll's petitioners accused them first of squandering away money which should have been invested in their dike's upkeep and, second, of asking for help in order to avoid the consequences of their stinginess. While the authors of the complaint praised themselves as "very diligent" (*fein fleissig*) parishioners who had invested extensive funds and labor in the upkeep of their own dike, they condemned Osterhever for shirking its duties and allowing its dike's condition to grow worse with each passing year. Unsurprisingly, therefore, the petitioners concluded their complaint by asking the duke to reject Osterhever's request for assistance and to demand its residents become more industrious.

Two aspects of the Tetenbüll petitioners' arguments are particularly interesting. Firstly, they attempted to apportion blame for the incident, a practice that was common in the context of dike breaches caused by storms. According to the religious worldview of the time, the cause of the breach could be none other than God's anger, which had been aroused by the people's sinful way of life. The authors of the complaint, however, attributed the cause of the breach to Osterhever's poor upkeep of its dike. In the eyes of the petitioners, negligent dike maintenance alone had resulted in the crisis. This purely causal explanation of the catastrophe does not prove, however, that religious interpretations of dike breaches were foreign to Tetenbüll's parishioners. Numerous case studies show that the interpretation of floods as divine punishments continued to be widespread well into the eighteenth century.¹⁸ Rather, it seems that Tetenbüll's petitioners chose not to explain the damage to the dike in terms of

divine punishment in order to evade what the residents of Osterhever perceived to be an obvious duty to provide them with assistance in accordance with the principle of dike solidarity. In order to achieve this aim, Tetenbüll's petitioners created an argument better suited to their purpose, namely that Osterhever itself was guilty of the calamity and had therefore forfeited its right to aid.

Also of interest is the recommendation that the petitioners included in their complaint. They proposed to the duke a course of action which, they argued, was best not only for themselves, but also for Osterhever. Osterhever's request, they argued, should not only be denied; its people should also be instructed to "work more diligently," which would encourage them to "help themselves." If the duke were to grant Osterhever's request for aid, then the lazy parishioners would become even more negligent with respect to the upkeep of their dike. This would lead to "a great confusion" throughout the land, because it would encourage other parishes to palm off work on their own dikes to neighboring parishes. Thus the Tetenbüll petitioners justified their refusal to give aid not by suggesting that they were financially incapable of doing so, but rather by posing as pedagogues concerned with the "moral improvement" of their neighbors.

Not surprisingly, the people of Osterhever saw the situation quite differently. In their reply, they responded only peripherally to Tetenbüll's chief accusation—that they had not invested enough money in dike maintenance—by providing a few figures relating to dike expenditures. Their main purpose was to depict their neighbors as unfairly advantaged and miserly. Tetenbüll, the authors complained, had far more land and was much wealthier than Osterhever. The inequality between the two parishes, they suggested, gave Osterhever a right to demand Tetenbüll's support in times of crisis.

This conflict reveals the existence of a wide spectrum of competing positions and polemical strategies with respect to the issue of dike solidarity. In order to further illustrate this spectrum, it is worth examining another conflict that differs markedly from the Tetenbüll-Osterhever dispute, both in terms of the time period and the arguments marshaled by the disputants.

In 1737, the heavily indebted residents of the Hol and Heverköge on the Eiderstedt peninsula submitted a petition to their prince requesting a postponement of the auctioning-off of their lands.¹⁹ This petition took the form of a complaint directed against the eastern inhabitants of the peninsula. The easterners had loaned large sums to the Hol and Heverköge in the past, sums which had not been repaid. The petitioners alleged that the easterners now intended to wrest their lands from them in the upcoming auction because they had not been able to repay the loans. They

accused the moneylenders of sacrificing marshland solidarity to their own material self-interest.

The petition's authors condemned this self-serving behavior, pointing out that in the past they had frequently aided the eastern parishes. In earlier times, it had been usual for a parish in a state of emergency to be "pulled up by the whole body, as if it were a limb of that body." Now, however,

the love which should be mutual in a society such as ours has cooled. Everyone has plugged his ears and closed his eyes to the complaints of those whom God's rod of discipline has punished through flood tides and bad harvests. Due to their inability to pay their debts, the call *veteres migrate coloni*²⁰ is raised against these people.²¹

This behavior, they suggested, was not only merciless. It also worked to the disadvantage of the entire land, for by forcing debtors to relocate, the countryside became depopulated of those who "have knowledge of the dikes and who know how to maintain them." "There are hardly enough people here," they continued, "who can protect the dikes and the dams from the frequent battering of the furious sea."²²

Thus, while the residents of Tetenbüll had claimed to be acting for "the good of the land" by refusing to help Osterhever, a hundred years later the inhabitants of the Hol and Heverköge argued that "the good of the land" was best served when the other "limbs of the body" acted in accordance with the principle of solidarity by lending aid to their neighbors. It is interesting to note that this body metaphor, as well as the theme of the *bonum commune*, featured prominently in the political discourse of the Enlightenment.²³ Although the connection cannot be fully explored here, these passages provide suggestive examples of how contemporary socio-political discussions not only influenced disputes surrounding the dikes, but were also carried out to some degree in the context of those disputes.

"Who Owns the Dike?" Dike Conflict as a Forum for Disputes about Property, Autonomy and Governance

As mentioned above, from the early seventeenth century the princes of Schleswig-Holstein began to pay greater attention to the marshlands. Motivated by fiscal concerns, these rulers attempted to gain greater influence over the shoring up of new land, as well as over the dikes themselves. In the early seventeenth century this attempt led to the creation of the position of the so-called dike superintendent (*Amt des Deichgrafen*), designed to regulate the dikes. Whereas in the past the administration of the dikes had been solely the responsibility of communal organizations,

from this point onward the dikes were to be overseen by officials who were appointed and paid by the territorial ruler.²⁴ Such a centralization of the dikes in the hands of the territorial authority met with opposition from the communes, which desired to continue to administer the dikes themselves.²⁵

Eiderstedt's residents had some success in this regard, for already in 1634 they won the right to propose a candidate to head the dike commission in the event that the office fell vacant. The commune was able to defend its autonomy owing to its political and economic significance. It had a major impact on state finances, not least because it had the power to bypass the provincial estates to negotiate taxes directly with the duke. It also made itself indispensable to the duke by agreeing to back the state's projected tax revenue, which it sometimes loaned to the ruler on credit when he needed funds quickly. By wielding this tax security fund, the communities of Eiderstedt were able to promote their own interests. Their power is evidenced by the fact that, only a few years after the introduction of the dike commission, the head of the commune could claim for himself the right to a certain degree of representation.²⁶ To the extent that this organization managed to maintain, at least for a while, its right of self-administration,²⁷ it represents what Gerhard Oestreich characterized as "that which is not absolutist in absolutism."²⁸ The territorial administration's reach was thus limited in the marshlands, where it by no means extended to all areas of social life.

Rulers were more successful in pursuing their economic interests through indirect means than by trying to gain greater influence over the administration of the dikes. As any expansion of arable land represented a substantial increase in revenue for the territorial state, princes encouraged the building of dikes. Starting in the early seventeenth century, this mercantilist policy took on a new form which has been described as the system of "*oktroyierte Köge*." According to this system, the territorial prince handed out various sorts of privileges and concessions (*Oktroy*) in order to encourage the building of new dikes. These concessions had originally been conferred in exchange for a fee or as a reward for exceptional service to the state. But the princes were not predominantly motivated to grant these privileges by the fee which they stood to collect nor by the prospect that the recipients' gratitude would make them more obedient subjects. Instead, they conferred them mainly in order to provide incentives for the construction of dikes so as to accelerate the shoring up of new farmland.

Whereas in the past marshlanders had decided among themselves when to begin construction of a dike, under the new system the prince declared when building would commence. The people were then given the opportunity to apply for the concessions being offered by the prince.

If they lacked the funds required to build the dike, they were forced to yield their bid to foreign investors, for whom dike building represented a risky but lucrative business venture.²⁹

Foreign investors were responsible for erecting the *Bottschlotter Werk*, a dike located on Schleswig-Holstein's northwestern coast. In 1610, Duke Johann Adolf advertised a *Freiheitsbrief*³⁰ which was designed to attract domestic and foreign investors to take part in the shoring up of some 7,000 hectares. Among the applicants were 27 Dutchmen.³¹ The high number of Dutch applicants is partly explained by the immigration at the end of the sixteenth century of religious refugees from the Netherlands into the duchies of Schleswig and Holstein. These refugees were welcomed in North Friesland not only because the region was noted for some degree of religious tolerance, but also because its rulers prized these immigrants for their capital and their dike-building expertise. The territorial princes conferred far-reaching freedoms and privileges upon the Dutch immigrants in exchange for the economic benefits which they brought with them.³²

In addition to an influx of foreign skills and capital into North Friesland, another prerequisite for the system of *oktroyierte Käge* (which might also be termed a system of "speculative land reclamation"³³) was the role that private enterprise increasingly played in dike construction. Whereas in the past dike building and maintenance had been the tasks of local residents, the bidding-out of dike projects in exchange for concessions led to a situation in which wealthy investors hired private companies to build the dikes. These construction firms employed many day laborers and were typically headed by highly specialized building experts, many of whom were Dutch.³⁴

With the introduction of a specialized workforce to build the dikes, the practice of a coastal community laboring together to erect its own dike increasingly became a thing of the past. Community involvement in dike building became largely limited to the contribution of funds. This development made possible the involvement of people in dike construction who neither lived in the marshlands nor had a work force at their disposal. In contrast, persons who could have provided materials and labor—but who did not possess the funds required to hire skilled workers—were excluded from dike projects. Among the latter were the marshlanders, most of whom were still engaged in subsistence agriculture.³⁵

Four factors thus sustained the system of *oktroyierte Käge*: the princes' need to generate more revenue owing to a shortage of state funds (a result of their efforts to expand their sovereignty); the fiscal importance of the marshlands; the growing monetization of the economy; and the interest of foreign investors in North Friesland, an interest that was given addi-

tional stimulus by the promise of religious freedom. The princes alone had the power to implement this system, which they found to be a more effective means of achieving their fiscal ends than were their attempts to wrest control of the dikes from the hands of the local population. The introduction of the dike commission, as well as the offering of concessions as incentives for dike construction, led to conflicts that reflected processes of social negotiation in the marshlands. These conflicts provide glimpses of how seventeenth-century political developments associated with rulers' attempts to expand their sovereignty played out at a local level.

However, dike conflicts did not solely result from a collision of local and state interests. They also arose out of disagreements between marshlanders and the officials who mediated between the population and the state authorities, as indicated by a dispute in Eiderstedt at the beginning of the eighteenth century. On the one side of this conflict stood the local population, whose chief interest was to protect the dike that shielded their lands from the sea. On the other side stood a group of local officials who wanted to utilize the dike as a road.

Even the earliest known codification of laws governing North Friesland's dikes includes discussion of the potential damage caused to dikes by using them for "secondary" purposes. For instance, while sheep were allowed to graze on dikes because their hooves packed topsoil firmly into place, the grazing of pigs and geese was prohibited because these animals were known to tear up the dike surface.³⁶ Horses and carriages were not permitted on dikes for this same reason, except by specially authorized persons.³⁷ The dike laws were particularly rigorous with respect to individuals who attempted to plow on the dikes, and anyone who did so was threatened with execution by hanging.³⁸

In order to curtail traffic on the dikes, the ruler of Eiderstedt erected gates on all dikes along the southern coast of his region. These gates could be opened only by the use of keys distributed to select persons. Everyone else was barred from riding across the dikes, and persons caught doing so risked the seizure of their horses and wagons. In addition, any blacksmith who forged a copy of a gate key was subject to a fine of fifty *Reichstaler*.³⁹ Despite these stiff penalties, dike traffic continued to be a problem due to the fact that those who possessed keys often allowed "anyone and everyone to pass through for a small fee," as the bailiff of Eiderstedt complained in 1733.⁴⁰ In order to combat this abuse, the bailiff appointed four persons with the task of monitoring dike traffic and enforcing its restriction. These persons were to collect eight shillings from every offender whom they reported to the authorities. Any possessor of a gate key who granted passage to unauthorized persons would have their key confiscated and would face heavy punishment. In addition, dike traffic was

further restricted to a few privileged individuals who were permitted to cut across the dikes on horseback only in the event of severe weather. The drawing of carriages across the dikes was henceforth prohibited.

In the context of this heightened concern over dike traffic, a dispute arose between two tax collectors (*Pfennigmeister*) of Eiderstedt, the brothers Boye and Peter Hamkens, and the leaders of the five parishes of Wester-Cating, Welt, Vollerwiek, Katharineneerd and Garding, concerning the claim of the *Pfennigmeister* that they had the right to use the dikes between St. Peter and Tönning as a road. The conflict was ignited when the leaders of the communal organizations in these parishes barred the officials from traversing the dikes by refusing to give them the gate keys. The *Pfennigmeister* responded by destroying the gates and forcing their way across.

Both sides tried to justify their actions in petitions addressed to the prince. The *Pfennigmeister* argued that they had the right to travel over the dikes in the course of “territorial business,” that is, as part of carrying out their official duties. They argued that this privilege was not only a right of custom (*Gewohnheitsrecht*),⁴¹ which, they claimed, was documented in the chronicles. Rather, “since we live in a marsh region,” it was also a law made necessary by the nature of the land itself.⁴² Not unexpectedly, the communal leaders did not agree with this reasoning. They challenged the *Pfennigmeister* to offer proof that their right to traverse the dike was indeed a right of custom, cynically suggesting that no one other than the Hamkens brothers themselves appeared to be aware of this particular *Gewohnheitsrecht*. Moreover, they suggested that the *Pfennigmeister* should look more closely at the chronicles which they had referenced in their petition, in particular the sections dealing with the potential causes of dike damage. The leaders also objected to the argument of the *Pfennigmeister* that North Friesland’s geography and climate made it imperative that the dikes be used as roads. They argued that nature dictated the utilization of the dikes as roads only in those cases when all other routes were impassable, which was not so in this case. According to the leaders, the Hamkens brothers had been moved to smash the gates and ride across the dikes due to their vanity and their desire for comfort, as well as their wish to inflict harm “at whim” on the parishes.⁴³

In spite of these arguments, the prince decided the case in favor of the *Pfennigmeister*. It is difficult to determine to what extent the brothers won over the prince with their argument. What is clear, however, is that the transport of tax money from St. Peter to Tönning was of the utmost importance, because only by means of this revenue could the public credit be held in good standing, thus securing “the marrow of the rural welfare.” A further indication of the importance which the prince attributed to the unobstructed collection of taxes is suggested by a mandate he

issued which stated that anyone who hindered the *Pfennigmeister* in their transport of tax revenues would be forced to pay the considerable fine of one hundred *Reichstaler*.

This conflict is an example of a clash between provincial officials and the parishes who were protected by the dikes and who were responsible for their maintenance. The object of dispute was the dike, or more precisely, the claims made by both parties with respect to the dike. The marshlanders' main concern was to ensure the dikes' function as a wall against the sea. They thus refused to allow any use of the dikes which might interfere with their protective function. Although the *Pfennigmeister* did not suggest that using dikes as roads superseded their function as a barrier against the ocean, they nonetheless felt the damage to the dikes caused by their horses would be less than the marshlanders predicted. In the eyes of the *Pfennigmeister*, the risk of damage was outweighed by the importance of their task—the transportation of tax revenues that were vital for the land's welfare.

Structurally considered, this conflict arose from competing claims with respect to the dike: the claim to a thoroughgoing protection of the dikes clashed with the claim to the dikes' multifunctionality. The parties which staked out these claims differed in their estimation of the risks associated with a secondary use of the dikes, as well as how reasonable it was to prohibit this secondary usage. The arguments which each side marshaled to support its position sometimes digressed from the actual questions relating to dike usage and the risks of damage. The debate about traffic on the dikes can thus be seen as part of a larger conflict concerning customary rights and privileges. Since it could not be mediated, it quickly took the form of an irreconcilable dispute in which only one of the two parties could see its perception of the case validated and its interests served. In the end it was the territorial ruler who determined the course of events by ruling on behalf of the *Pfennigmeister*.

“Can the Dike Provide Protection from God’s Punishments?” Coastal Dwellers between Fatalism and Technological Optimism in the Seventeenth Century

Dike construction and repair were processes that were closely linked to the marshlanders' worldviews and to their perceptions of their environment. When a dike was destroyed by a flood or when the erection of a new dike was planned, the marshlanders were led to meditate on God's role in the event. With respect to a flood there was a consensus among seventeenth-century coastal dwellers: the flood was God's punishment for their sinful behavior. They also sought God's blessing prior to the erection of a dike, believing that without His support the project would

not be successful. In questioning the feasibility of a dike project, the marshlanders articulated a diversity of opinions with regard to the dangers posed by the sea and to the defensive capabilities of people. Their perceptions of the risks involved—perceptions shaped by their experiences of safety and danger—alternated between a sort of world-renouncing fatalism and a partly secular faith in technology.⁴⁴

In 1685 the mayor of Husum, Harro Feddersen, spoke out in support of a dike project planned in the bay of Bottschlott.⁴⁵ He was convinced that the dike could be successfully realized, and he supported his conviction by saying that God would bestow His blessing on the project, citing a vision that a trustworthy man had had with respect to the dike's construction:

This man was walking in the late fall in the Hattstedt marshes on the other side of the dike which borders our new polder. As he later reported, he was deeply worried about the very bad condition of the dike, especially with regards to future generations. Alone he sighed and prayed to God that He would help keep this region safe, and that He would not allow the dike to be swept away, which would turn the region into a salty sea. At this moment he heard a cow bellow somewhere beyond the dike, where at that time of year there were no cattle to be seen or heard. The man was surprised but turned his thoughts again to the dike. As he ascended the ridge, he gazed out over a green field full of houses and cattle, as a good marshland appears at the peak of summer. This scene immediately vanished before his eyes, leaving him uncertain of what had happened and what exactly he had seen. He could not understand this as anything other than an assurance from above that the Hattstedt polder will endure, and that it will be delivered to safety by means of the endiking of the adjoining marshlands.⁴⁶

According to Feddersen, the vision of this “credible and well-respected man” was to be interpreted as a sign from God that the dike project enjoyed His support. By citing this vision, Feddersen aimed to dispel any doubts about the feasibility of the project and to convince skeptics that God had called upon them to commence work.

Just as God’s support counted as a kind of guarantee that a dike project would be successful, it was assumed that without His help the project would fail. This is illustrated in several statements from contemporaries. In 1613, for instance, an inhabitant of the Sieversfleth polder in Eiderstedt wrote to the prince that his lands had been endiked “at our own expense, spread evenly among us, owing to the help and support of God the Almighty.”⁴⁷ Hans Brodersen from Bupschlot and Wolf Nummesen from Lith shared the expectation that the damage to the dikes protecting their lands would be repaired with divine assistance. In February 1639 they asked the duke for permission to remain in Eiderstedt for

as long as was necessary before God granted them His mercy and His support in the reconstruction of their dikes.⁴⁸

Just as no dike could be built without God's blessing, neither could any dike withstand a flood sent by God as a punishment. In a so-called "prayer of complaint" (*Klag Gebet*), the Holstein pastor Wilhelm Alardus emphasized the powerlessness of man in the face of a divine "punishing flood" (*Strafflut*):

Before God may not endure / the dike in all its power / with what are thought to be the strongest walls in the land / For when the waves / pound against them with violence / the strongest walls / are easily felled.⁴⁹

Equally admonitory in tone were the words of the Husum school rector Abel Fink, who after the so-called Burchardi Flood of 1634 wrote a "rueful poem of mourning about the pitiable demise of the land of Nordstrand."⁵⁰ In the poem's final lines Fink called upon his readers not to trust in the man-made dikes, which could not oppose a *Strafflut*: "Do not depend on your strong dikes / If it is God's will / they must yield to the mighty waves."⁵¹

A petition written by the parishioners of Koldenbüttel at the end of the eighteenth century also expressed doubts about the effectiveness of the dikes, and thus about man's ability to protect himself from the sea. In their petition the parishioners were mainly concerned with establishing why the dikes in their region had suffered such severe damage in the last storm. They concluded that this was due in part to the fact that the dikes' repair had not been completed when the storm hit. Thus it was not surprising that the "early arrival of the exceptional storm combined with the lasting and violent storm tides" had destroyed the dikes.⁵² Yet the petitioners went on to argue that even if the repairs had been finished prior to the storm, the dikes could never have withstood the mass of water that God had directed at their lands. They made their pessimistic assessment of the situation still bleaker by calling into question their influence on the sea in general: "Who can explain the fury of the weather and of the sea, and who could ever demand such an explanation?"⁵³

Statements such as these confirm the contemporary notion that every instance of misery and happiness which people experienced was an expression of God's will. Devastating floods could engender the belief that no dike, no matter how strong, could withstand a *Strafflut* and this belief could lead to a sense of futility among the marshlanders which threatened to erode their will to maintain the dikes. This fatalistic attitude could thus become a source of danger for the safety of the entire marshland.⁵⁴ For instance, in early 1636 parishioners in Tönning, Kotzenbüll, Kating, Welt and Vollerwiek refused to contribute to the maintenance of a particular dike in their region, because in the last storm this dike had proven

to be useless and the parishes had been flooded.⁵⁵ Just as pessimistic in outlook was the landholder Hennecke Meinstorff, who doubted that a dike could be repaired which God's hand had intentionally destroyed. Meinstorff, who possessed a large polder on the eastern side of the former territory of Nordstand, gave up his holdings after experiencing several breaches of the dike that shielded them. He objected to the opinion of another landholder that he should take up repairs once again, arguing that "merciful God does not grant that such land shall be endiked."⁵⁶

A similar attitude is expressed in the travel reports written by the popular philosopher Johann Nicolaus Tetens, who in his 1788 *Reisen in die Marschländer* (*Travels in the Marshlands*) identified various causes for what he perceived to be the alarmingly poor condition of the dikes along Schleswig-Holstein's western frontier. According to Tetens, the marshlanders' lack of willingness to maintain their dikes was due partly to the devastating experiences of past storms and partly to a deep-rooted tendency in the people towards fatalism:

Past experience seems to have contributed to the people's negligence. Because the strongest and highest of the storm tides only come once every twenty or thirty years, the people have many storms to look back on that did not result in dike breeches, despite the fact that the dikes had not been adequately maintained. These experiences thus confirm their belief that it makes no difference whether one makes the dikes stronger or higher, if one diligently improves them or not.⁵⁷

Tetens thus argued that the belief among the marshlanders that "the floods are divine punishments" led them to conclude that they could not protect themselves from these disasters, "no matter how the dikes may be constructed."⁵⁸

Although the belief was widely held that without God's assistance man was powerless against the sea, in the eyes of some pastors this belief was challenged by a tendency among the marshlanders to sometimes estimate too highly their own contribution to the success of a dike project. This sentiment was expressed by Pastor Peter Bökelmann in a sermon which he delivered on the occasion of the successful completion of the dike protecting the Obbenskoogs in 1564. The pastor warned his listeners—and in particular the prince, who was also present—not to be too proud of their accomplishments with respect to the dike:

Your merciful prince should turn his heart to God and plead diligently on behalf of his subjects that the almighty Lord will preserve this land and this people, and will give nourishment to the poor women and children of this polder, which the prince should not think could have been won from the sea if it had not been God's will, even if all the world's people had labored together to make it so. You

the subjects should also plead to God from the bottom of your hearts that He grants His mercy and His blessing to this project, and that you will use it in such a way as to honor Him, to support the churches and the schools, to feed and provide for your poor women and children—in sum that you may utilize it for the good of the land and its people. If you choose instead to behave the way your ancestors did some years ago—thinking only of feasting and drinking, of whoring and arrogance—then God will surely do to you what he did to them.⁵⁹

Bökelmann's warning does not necessarily prove that the prince and his subjects had in fact fallen prey to a hubristic faith in their power to protect themselves from the sea. Rather, the sermon suggests that the clergyman feared the possibility of the people ceasing to recognize the all-important role of divine assistance in their lives, which would then cause them to lose their humility with respect to God. The same fear was expressed roughly 150 years later by the Oldenburg theologian Johann Friedrich Jansen. After the so-called Christmas Flood of 1717 had ravaged long stretches of the coastline, Jansen criticized the widespread view that better dikes could have protected the inhabitants from God's wrath. The theologian argued that such a view could be held only by one whose heart "is not filled with true honor for God" because "it directs the trust / which is due to God / towards God's creatures."⁶⁰

Of particular interest in this context is a passage written by Petrus Petrejus, Provost of Gardingen, around the middle of the eighteenth century. According to Petrejus, the marshlanders' belief that their dikes could keep them safe from floods was destined to have fatal consequences:

When, after successfully completing a diking project, the inhabitants of these lands trust in their own labor rather than giving thanks to God, and mistakenly and foolishly believe that they have defied the sea, is it any wonder that the Lord takes from them the armor on which they rely, thereby demonstrating that He alone is King, whom all elements—water, air, fire and earth—must obey with a wave of His hand?⁶¹

Petrejus thus suggested that rather than relying on the security offered to them by that which they had erected with their own hands, the marshlanders would do better to reflect on their fragility and their powerlessness and to dedicate themselves to a God-fearing way of life.

Summary

The case studies presented here illuminate some of the ways in which dike conflicts served as a forum for diverse processes of social, political and religious negotiation within North Friesland's coastal communities.

Because the question concerning the “correct order of the world” was debated within the context of these disputes, they also reveal the struggle between competing notions of stability and order in an Early Modern society.

The case studies suggest that the principle of solidarity did indeed form one of the pillars of life in North Friesland’s coastal communities. Yet, in practice, dike solidarity had to be negotiated, for marshlanders had to decide among themselves who was obliged to provide assistance to whom, as well as who stood to benefit from this assistance.

In regard to the persistent notion of a fundamental hostility between coastal dwellers and the sea, it has been shown that the marshlanders’ concern with protecting themselves from the ocean through the construction and maintenance of dikes did not serve to subordinate all other interests. In point of fact, there was continual wrangling among the people about how much money and labor should be invested in the dikes. Their degree of willingness to invest in dikes was closely linked to the extent to which they believed that these man-made structures could protect them from the caprice of the sea. This assessment was dependent on their religiously colored worldviews, in particular on whether they believed that people could (and should) defend themselves against a flood sent by God as a punishment.

The examples briefly discussed here show that by investigating North Friesland’s coastal society “from below,” one can gain new insight into diverse areas of coastal life from the perspective of the marshlanders themselves. Such analyses can give rise to a more multi-faceted understanding of humanity’s encounter with the sea throughout history in contrast to those studies which are based exclusively on published materials and which take for granted the typical images of coastal life propagated in earlier studies. Our knowledge of Early Modern coastal societies can thus be expanded and partly revised.

Notes

¹ Jean Delumeau, *La Peur en Occident* (Paris, 1978), 31. All translations are the author’s.

² The image of “the Frisian” was first popularized by nineteenth-century liberal advocates of a German constitution. These thinkers portrayed the inhabitants of Germany’s north-western coast as model citizens who possessed a strong sense of freedom and solidarity. They compared the North Frisians’ efforts to claim their lands from the sea to the struggle to create the German state. The circle of liberals who wrote for the *Kieler Blätter*—including Friedrich Christoph Dahlmann and Nikolaus Falck—propagated in their writings the image of the “free Frisian,” who was motivated solely by his love of freedom and his loyalty to the community. See Manfred Jakubowski-Tiessen, “Kein Zurück zur Natur. Wie Romantik und Kommerz die Diskussion über die Halligwelt nach der Sturmflut 1825 prägten,” in *Dünger und Dynamit. Beiträge zur Umweltgeschichte Schleswig-Holsteins und Dänemarks*, eds. Manfred Jakubowski-Tiessen and Klaus-Joachim Lorenzen-Schmidt (Neumünster, 1999), 121–136,

here 130ff.; Manfred Jakubowski-Tiessen, "Mentalität und Landschaft. Über Ängste, Mythen und die Geister des Kapitalismus," in *Kulturlandschaft Nordseemarschen*, ed. Ludwig Fischer (Bräist; Bredstedt; Westerhever, 1997), 129–143; Klaus A. Vogel, *Der Kreis um die Kieler Blätter, 1815–1821* (Frankfurt/Main, 1989).

³ Walther Schoenichen, *Zauber der Wildnis in deutscher Heimat. Urkunden vom Wirken der Naturgewalten im Bilde der deutschen Landschaft* (Neudamm, 1935). Schoenichen's writings, which are permeated by the ideology of National Socialism and are replete with war metaphors describing man's encounter with the sea, have been criticized by Ludwig Fischer. See Fischer's "Die 'Urlandschaft' und ihr Schutz," in *Naturschutz und Nationalsozialismus*, eds. Joachim Radkau and Frank Uekötter (Frankfurt/Main, 2003), 183–205. Fischer wrote that "das 'Heldische,' das an deutscher Urlandschaft im 'Titanenkampf der Naturkräfte' erkannt werden sollte, wird für die kulturgeschichtliche Sukzession nun zur Eigenschaft eines Gegners, ja Feindes der tätigen Menschen. Deren Kulturreistung mit der Formung der Landschaft kann nur Erfolg haben, weil sich in ihnen ein dem Naturgeschehen zumeist überlegenes 'Heldentum' verwirklicht," 193.

⁴ Thomas Steensen, *Rudolf Muuß. Heimatpolitiker in Nordfriesland und Schleswig-Holstein* (Husum, 1997); "Muuß, Rudolf August Edgar," in *Biographisches Lexikon für Schleswig-Holstein und Lübeck*, vol. 11 (Neumünster, 2000), 289–294.

⁵ Rudolf Muuß, "Nordfriesische Stammesart," in *Die Friesen*, eds. Conrad Borchling and Rudolf Muuß (Breslau, 1931), 130, 132.

⁶ Rudolf Muuß, *Die Sturmflut am 11. Oktober 1634* (1934, reprinted Hörnum; Sylt, 1987), 2.

⁷ Harry Kunz and Albert Pantern, *Die Koge Nordfrieslands*, 2nd ed. (Bräist/Bredstedt, 1999), 5.

⁸ Simon Schama, for instance, coined the term "hydrographic culture" to describe Dutch coastal settlements in his wide-ranging book *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age* (New York, 1987), 44. Norbert Fischer slightly modified Schama's terminology (he writes of a "hydrografische Gesellschaft"), yet, like Schama, Fischer applied this term to coastal life in general, regardless of regional variation. In so doing, on a theoretical level Fischer unnecessarily reduces his much more nuanced investigation. See Fischer's *Wassersnot und Marschengesellschaft. Zur Geschichte der Deiche in Kehdingen* (Stade, 2003).

⁹ This essay sums up conclusions put forth in the author's dissertation submitted in July 2005 at Kiel University, published as "*Kein Land ohne Deich . . . !*" *Lebenswelten einer Küstengesellschaft in der Frühen Neuzeit* (Göttingen, 2006).

¹⁰ In the seventeenth century, the ability to read and write was widespread among the inhabitants of the marsh regions, particularly among the farmers. However, the fact that petitions had to follow certain prescribed rules (for example, the correct forms of address and dedication) suggests that scribes drew up the complaints based on information provided to them by the marshlanders. See Otto Ulbrich, "Supplikationen als Ego-Dokumente. Bittschriften von Leibeigenen aus der ersten Hälfte des 17. Jahrhunderts als Beispiel," in *Ego-Dokumente. Annäherung an den Menschen in der Geschichte*, ed. Winfried Schulze (Berlin, 1996), 149–174, here 153.

¹¹ "Personal testimonials" are understood here as sources explicitly written by a particular individual, in the sense that this person readily refers to their own life and experiences in the document. See Benigna von Krusenstjern, "Was sind Selbstzeugnisse? Begriffskritische und quellenkundliche Überlegungen anhand von Beispielen aus dem 17. Jahrhundert," *Historische Anthropologie* 2 (1994): 462–471.

¹² In the seventeenth and eighteenth centuries, North Friesland belonged partly to the Duchy of Schleswig and partly to the Duchy of Holstein. Each duchy was itself divided between the holdings of the Duke of Gottorf and the King of Denmark. In the course of the eighteenth century, the Danish king increasingly incorporated into his realm the Duke of Gottorf's lands, so that by 1773 the king was able to unite both duchies under Danish rule. See Rolf Kuschert, "Die Frühe Neuzeit," in *Geschichte Nordfrieslands*, ed. Nordfriisk Instituut (Heide/Holst., 1995), 105–206.

¹³ It is important to note that the picture presented here—which is limited to the dike's influence on the social structures, politics and worldviews of the marshlanders—is perhaps too one-sided, for these things also influenced the dike itself. There is no doubt that the community shaped the dike as much as it was shaped by the community. However this is not the place to survey the changing shape of dikes through the centuries, for it is an already very well explored item of research. See for example Hans Joachim Kühn and Albert Panten, eds., *Der frühe Deichbau in Nordfriesland*, 2nd ed. (Bräist/Bredstedt, 1999); Hans Joachim Kühn, *Die Anfänge des Deichbaus in Schleswig-Holstein* (Heide/Holst., 1992); Johann Kramer, "Entwicklung der Deichbautechnik an der Nordseeküste," in *Historischer Küstenschutz. Deichbau, Inselschutz und Binnenentwässerung an Nord- und Ostsee*, eds. Johann Kramer and Hans Rohde (Stuttgart, 1992), 63–110.

¹⁴ Kreisarchiv Nordfriesland, Husum (= KANF) A2 Ksp. Tetenbüll, 33.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ The religious coloring of the marshlanders' worldviews is particularly evident in those contemporary sources that discuss the so-called "Burchardi Flood" of 1634. See Manfred Jakubowski-Tiessen, "Erschreckliche und unerhörte Wasserflut". Wahrnehmung und Deutung der Flutkatastrophe von 1634," in *Um Himmels Willen. Religion in Katastrophenzeiten*, eds. Manfred Jakubowski-Tiessen and Hartmut Lehmann (Göttingen, 2003), 179–200; Mara Wade, "The Fifth Horseman: Discourses of Disaster and the 'Burchardi Flut' of 1634," *Daphnis* 24, no. 2/3 (1995): 301–328; Boy Hinrichs, Albert Panten and Guntram Riecken, *Flutkatastrophe 1634. Natur-Geschichte-Dichtung* (Neumünster, 1985). With respect to the longevity of metaphysical interpretations of floods, see Manfred Jakubowski-Tiessen, "Gotteszorn und Meereswüten. Deutungen von Sturmfluten vom 16. bis 19. Jahrhundert," in *Naturkatastrophen. Zu ihrer Wahrnehmung, Deutung und Darstellung von der Antike bis zum 20. Jahrhundert*, eds. Dieter Groh, Michael Kempe and Franz Mauelshagen (Tübingen, 2002), 101–118. With respect to the metaphysical interpretation of other sorts of catastrophes, see Jakubowski-Tiessen and Lehmann, eds., *Um Himmels Willen. Religion in Katastrophenzeiten*. Ruth Groh and Dieter Groh discuss in general terms the metaphysical aspects of people's worldviews in the early modern period. See Ruth Groh and Dieter Groh, *Weltbild und Naturaneignung. Zur Kulturgeschichte der Natur*, 2nd ed. (Frankfurt/Main, 1996) 7–10.

¹⁹ KANF A2 Ksp. Poppenbüll, 45.

²⁰ This quotation—roughly translated as "Former inhabitants, be gone!"—comes from Vergil's *Elegae*, a collection of pastoral poetry. See *Publius Vergilius Maro, Bucolica–Hirtengedichte*, trans. with commentary by Michael von Albrecht (Stuttgart, 2001), Ninth Ekloge, 76.

²¹ KANF A2 Ksp. Poppenbüll, 45.

²² Ibid.

²³ With respect to the cameral concept of the "common good" (*gemeines Beste*), see for instance Peter Hibst, *Utilitas publica–gemeiner Nutz–Gemeinwohl. Untersuchungen zur Idee eines politischen Leitbegriffes von der Antike bis zum späten Mittelalter* (Frankfurt/Main, 1991); Torsten Meyer, *Natur, Technik und Wirtschaftswachstum im 18. Jahrhundert. Risikoperzeption und Sicherheitsversprechen* (Münster, 1999); the chapter "'Glückseligkeit'–Handlungskoordination zwischen Jenseits und Diesseits" in Winfried Schulze's *Vom Gemeinnutz zum Eigennutz. Über den Normenwandel in der ständischen Gesellschaft der Frühen Neuzeit* (München, 1987); Harald Bluhm and Herfried Münkler, eds., *Gemeinwohl und Gemeinsinn. Historische Semantiken politischer Leitbegriffe* (Berlin, 2001). With regards to the body metaphor as a "natural symbol" for groups, societies and states, see Mary Douglas, *Ritual, Tabu und Körpersymbolik. Sozialanthropologische Studien in Industriegesellschaft und Stammeskultur* (Frankfurt/Main, 1974).

²⁴ Volquart Pauls, "Die Entstehung des Deichgrafenamtes in Nordfriesland," in *Festschrift für Max Pappenheim* (Breslau, 1931), 28–44.

²⁵ Ludwig Andresen, "Bäuerliche und landesherrliche Leistung in der Landgewinnung im Amte Tondern bis 1630," *Die Westküste* 2, no. 2/3 (1940): 136.

²⁶ Rolf Kuschert, "Von Stallern, Pfennigmeistern, Deichgrafen, Rat- und Lehnsmännern. Ämter im alten Eiderstedt," *Mitteilungsblatt der Gesellschaft für Tönninger Stadtgeschichte* 3 (1983), 19.

²⁷ Kersten Krüger, "Die Landschaftliche Verfassung Nordelbiens in der frühen Neuzeit: Ein besonderer Typ politischer Partizipation," in *Civitatum Communitas. Studien zum Europäischen Städtewesen. Festschrift Hans Stoob zum 65. Geburtstag*, eds. Helmut Jäger, Franz Petri and Heinz Quirin (Cologne; Vienna, 1984), 458–487, here 461. See also Manfred Jessen-Klingenbergs, *Eiderstedt, 1713–1864: Landschaft und Landesherrschaft in königlich-absolutistischer Zeit* (Neumünster, 1967).

²⁸ Gerhard Oestreich, "Strukturprobleme des europäischen Absolutismus," in *Geist und Gestalt des frühmodernen Staates* (Berlin, 1969), 183.

²⁹ See Jörg Engelbrecht, *Die reformierte Landgemeinde in Ostfriesland im 17. Jahrhundet, Studien zum Wandel sozialer und kirchlicher Strukturen einer ländlichen Gesellschaft* (Frankfurt/Main, 1982), 108; Manfred Jakubowski-Tieszen, "Das Leben an der Küste. Eigenheiten einer bäuerlichen Gesellschaft," in *Küstenbilder-Bilder der Küste*, eds. Martin Döring, Wolfgang Settekorn and Hans von Storch (Hamburg, 2005), 161–180, here 169ff.; Björn Poulsen, "Monetarisierung und regionale Differenzierung im Mittelalter und in der frühen Neuzeit. Die bäuerliche Agrargesellschaft Dänemarks aus schleswigscher Sicht," in *Wirtschaftliche Wechsellagen in Schleswig-Holstein vom Mittelalter bis zur Gegenwart*, ed. Jürgen Brockstedt (Neumünster, 1991), 19–36, here 22ff.

³⁰ *Freiheitsbriefe* granted exemption from taxes for a specified period of time under stipulated conditions.

³¹ Andresen, "Bäuerliche und landesherrliche Leistung in der Landgewinnung," 117; Albert Panten, *350 Jahre: Das Bottschlotter Werk. Zum Gedenken an den 2. Juli*, ed. Nordfriesischen Heimatverein für die Ortsteile Dagebüll, Fahretoft, Julianen-Marienkoog, Waygaard (Breklum, 1983), 10; Ernst George, "Die wirtschaftlichen und kulturellen Beziehungen der Westküste Schleswig-Holsteins zu den Niederlanden in Nordelbingen," *Beiträge zur Heimatsforschung in Schleswig-Holstein, Hamburg und Lübeck* 1 (1923): 245.

³² Karl Haff, "Einfluss der Niederländer auf die Kolonisation und Deichverfassung in Schleswig-Holstein," *Tijdschrift voor rechtsgeschiedenis* 16 (1939): 347–358.

³³ In this context, "speculative" is to be understood in an economic sense, as a way of doing business that recognizes high risks and the possibility of equally high profits.

³⁴ Rolf Uphoff, "Arbeit und Arbeiter am Deich," chap. 3 in *Die Deicher* (Oldenburg, 1995).

³⁵ George, *Beziehungen zu den Niederlanden*, 243.

³⁶ Eiderstedter Deichordnung [=dike code] 1582, Art. 10; Pellwormer Deichordnung 1711, Art. 8 and 9.

³⁷ See "Herzog Friederichs Verordnung, wegen des Fahrweges auf dem Deich zwischen Tönning und Friedrichstadt, 13. März 1654"; "Des Stallers Verboth, betreffend das Befahren und Vernichten der Hafteiche, wie auch das Jagen und Fischen, 16. April 1655"; "Herzog Friederichs Mandat, wider die Befahr- und Vernichtung der Teiche in Eyderstedt, 29. Jan. 1698."

³⁸ Spadelandrecht, Art. 20. The Tonder dike code of 1619, Article 6 as well as the Pellworm dike code of 1711, Article 12 threatened a "willkürliche Strafe."

³⁹ KANF A2 Deichband, 10; KANF A2 Deichband, 14.

⁴⁰ KANF A2 Landschaft, 206.

⁴¹ In the original legal codes, a *Gewohnheitsrecht* is described as "a legem usutem."

⁴² KANF A2 Landschaft, 206.

⁴³ Ibid.

⁴⁴ See Marie Luisa Allemeyer, "'Neptun soll auf den Deichen spielen'. Risikowahrnehmung und Gefahrenabwehr in der schleswig-holsteinischen Küstenbevölkerung des 17. Jahrhunderts," *SoWi. Das Journal für Politik, Geschichte, Wirtschaft und Kultur* 2 (2003): 24–30; Manfred Jakubowski-Tiessen, "Divine Judgement or Incalculable Risk? A Natural Disaster and its Consequences," in *Travaux d'Histoire Suisse* 3 (2006): 87–98.

⁴⁵ Universitätsbibliothek Kiel, Cod. MS, SH, 106 C, III, s. 163ff.

⁴⁶ Ibid.

⁴⁷ Landesarchiv Schleswig-Holstein, Schleswig (= LAS), Abt. 7, Nr. 3249, 81.

⁴⁸ Panten, *350 Jahre Bottschlotter Werk*, 217.

⁴⁹ Wilhelm Alardus, *Wetter Predigten: D.i.: Vier unterschiedliche Predigten, von schrecklichen Donner und Blitz, von starcken Sturm Winden, u. . . Wasserfluten, auch unzeitigem . . . Regen, Dadurch Gott . . . seinen gerechten Eifer, u. . . Zorn . . . geoffenbaret hat. Zu Crempen in Holstein geh.* (Leipzig, 1636), 77.

⁵⁰ This poem is undated, but there is reason to believe that it was written between 1652 and 1688. See Dieter Lohmeier, "Zwei Sturmflutgedichte des 17. Jahrhunderts," in *Festschrift für Gerhard Cordes zum 65. Geburtstag*, vol. 1, eds. Friedhelm Debus and Joachim Hartig (Neumünster, 1973), 91–116, here 100–104; Jakubowski-Tiessen, "Erschreckliche und unerhörte Wasserflut," 200.

⁵¹ Lohmeier, "Zwei Sturmflutgedichte des 17. Jahrhunderts," 103.

⁵² KANF A2 Ksp. Koldenbüttel, 42: "der frühzeitige ausserordentliche Sturm und die anhaltende gewaltige Meeresfluth."

⁵³ Ibid.

⁵⁴ After the flood of 1717 many marshlanders fell victim to a lasting sense of apathy and depression. Authorities saw this as a serious problem, as it prevented the inhabitants from repairing the dikes and reclaiming flooded land. See Manfred Jakubowski-Tiessen, *Sturmflut 1717. Die Bewältigung einer Naturkatastrophe in der Frühen Neuzeit* (München, 1992), 142ff. Full of a sense of hopelessness, the victims of the flood asked themselves why they should even bother to re-erect their dikes when God was intent on sending a *Strafflut* to destroy them.

⁵⁵ LAS Abt. 7, Nr. 3248.

⁵⁶ "Der liebe Gott solch Landt einzudyken Uns nicht gönnen und geben wolte." See Christian Hinrich Eckermann, "Die Eindeichungen auf Nordstrand und Pellworm," *Zeitschrift für Schleswig-Holstein-Lauenburgische Geschichte* 25 (1895): 133.

⁵⁷ Tetens, *Reisen in die Marschländer an der Nordsee zur Beobachtung des Deichbaus in Briefen*, (Leipzig, 1788), 6ff.

⁵⁸ Ibid., 25.

⁵⁹ Iven Knutzen, *Kurze Anzeige, zu welcher Zeit Eiderstädt, mit denen von der Geest und der Landschaft Stapelholm landfest geworden und zu welcher Zeit die neuen Koege, zwischen den Geestleuten und Eiderstädt eingeteicht sind . . .*" (Wobbenbüll 1588), 473ff.

⁶⁰ Johann Friedrich Jansen, *Historisch-Theologisch Denckmahl Der Wunder-vollen Wegen Gottes in den großen Wassern / welche sich Anno 1717. den 25. Decemb. zu vieler Länder Verderben / so erschröcklich ergossen* (Bremen; Jever, 1722), 789, quoted in Jakubowski-Tiessen, *Sturmflut 1717*, 93.

⁶¹ Petrus Petrejus, *Von der Stadt und dem Amt Tondern und vom Deichwesen*, eds. Albert Panten and Heinz Sandelmann (Bräist/Bredstedt, 1993), 323.

URBAN NEEDS AND CHANGING ENVIRONMENTS: REGENSBURG'S WOOD SUPPLY FROM THE EARLY MODERN PERIOD TO INDUSTRIALIZATION

Martin Knoll

When on June 27, 1830, a storm felled a large number of trees in state forests near Kelheim in Bavaria, the regional government of the Regen District¹ made a suggestion to the municipal authorities of Regensburg, a city of approximately 20,000 inhabitants at that time.² In order to avoid a shortage of wood and to prevent speculators from threatening the city's supply, the municipality, the regional authorities suggested, should establish and run a timber depot. As an incentive, they offered Regensburg 10,000 *Klaster*³ of wood from the Kelheim state forests. Regensburg's authorities responded politely, but they did not show much enthusiasm. Although they agreed that the town had long needed a wood depot, they nonetheless felt obliged to stipulate a set of conditions for the realization of the project.⁴ The state should calculate a fair price and cover all costs and risks of the wood's transport between the Kelheim forests and Regensburg's *Holzlände*, the area in the center of the city where wood was landed from the Danube. Additionally, the members of the magistrate demanded further negotiations on the form and frequency of payment for the project. They pointed out that building and maintaining a depot would be expensive, while the purchase or renting of land would involve substantial economic risks for the town. Thus the central argument for the construction of wood depots in Regensburg as in other towns—that a wood shortage would unduly disadvantage a town's growing population of poor people—was countered by the claim that such a project would impose an undue financial burden on the community. In the words of the Regensburg magistrate:

As the high authority knows, the commune is not in splendid condition at all and has to bring enormous sacrifices to meet the demands of a growing number of dissolute people, shirkers and the unemployed. Because of this, the administration must check everything carefully, particularly in the recent matter of the depot ...⁵

The urban authorities did in fact check the issue carefully. They looked for possible sites, they examined the amount of wood needed by local businesses and private households and they inspected the available wood and procured experts' opinions. When the experts voiced their skepticism and the state authorities made clear that they were much more interested

in their own economic goals than in their social responsibility,⁶ the city suspended further activity. A brief note by Regensburg's vice mayor Johann Wilhelm Anns (1766–1842), written on the margin of the government's letter, concluded that the project had to be temporarily halted because the city could not afford to enrich the state's finances.⁷

Material and Energy Flows: The Regional Frameworks

A city's supply of energy constitutes one of the main factors connecting urban life and economy to the city's geographical, political and natural environment. The southern German city of Regensburg is situated on the northern edge of the Bavarian part of the Danube valley. The region's fertile soil and mild climate created favorable conditions for agriculture, thus leaving only a small area covered by woodland. Looming over the northern banks of the Danube, to the northeast of Regensburg, are the foothills of the *Bayerischer Wald*, a mountainous region dominated by woodland. The Upper Palatinate region north of the city had a long tradition of preindustrial mining and metal production. As a result, it did not constitute a significant source of wood for the region. The confluence of the Danube and Regen rivers in Regensburg was a geographical feature of great importance for the city's wood supply. The Danube was used to transport wood downstream from western regions, particularly from the forests near Kelheim, and upstream from the forests near Wörth and Donaustauf; the Regen connected the city to the woodlands of the *Bayerischer Wald*. From the late eighteenth to the mid nineteenth century, this geographic framework remained largely unchanged. However, as a result of various political developments, Regensburg's relationship with its hinterland was dramatically altered, thereby creating a set of entirely different resource management conditions.

In the eighteenth century Regensburg was an independent city. Beyond the fact that it hosted the diet of the Holy Roman Empire, it was of little importance beyond its immediate region. In this period, Regensburg ruled only a very small *extra muros* territory that did not contain any woodland.⁸ Completely surrounded by a hostile neighbor (the Bavarian Electorate), Regensburg could neither practice any independent forestry or forest policy nor could it benefit from the unrestricted trade and transport of wood on the Danube and Regen rivers. More than once, Bavaria used this situation to weaken the city's political status and economic development by cutting its wood supply.

Things changed during the Napoleonic period, when Regensburg became the capital of a short-lived principality. As a consequence of the secularization of property formerly owned by the bishopric and the monasteries of Obermünster and Niedermünster, the new principality con-



Drawing of Regensburg's *Burgfrieden*, Johann Sebastian Püchler, 1765.
By permission of Historical Museum of Regensburg.

trolled a territory that included extensive woodlands. Influenced by contemporary economic ideas, the government of Karl Theodor von Dalberg, which ruled the Regensburg principality from 1802 to 1810, came to believe that there was more wood than necessary for the city's supply and therefore decided to reduce the region's woodland.⁹ In doing so, the government was pursuing two goals: the first was to win space for agricultural production; the second was to use the money earned from selling the timber to finance the urban economy and the duke's economic policy. Furthermore, in April 1809 the city sustained heavy damage due to the wars that were fought throughout Europe in the Napoleonic era. As a result, the politics of resource management took on a new degree of urgency.

In 1810, Regensburg became part of the Kingdom of Bavaria. In the records of that time we find traces of many of the common themes in nineteenth-century urban, economic and environmental history. On the one hand, the territorial state wanted to optimize profits from its forests under the conditions of a market economy and saw in other European countries, as well as in the growing towns of the region, a rapidly expanding market for its products.¹⁰ On the other hand, Regensburg's mag-

istrate—much like magistrates in similar communities—refused to bear the social consequences of this new paradigm. This conflict is well documented in the city's archive, which also contains abundant evidence attesting to the usual contemporary efforts to solve the growing problems by better organizing regional trade in wood and transport, as well as by introducing energy-saving techniques and exploiting nearby fuel substitutes such as peat and soft coal. The written correspondence between Regensburg and other towns offers ample evidence of how frequently such resource management issues were discussed. They also demonstrate a prevailing view in which wood was seen as a limited natural resource, thereby limiting the region's economic development until the coming of the railway network, which allowed Regensburg to extend its supply system for hard coal. In addition, the trade and manufacture of wood products was a significant factor in stimulating Regensburg's economic development in the nineteenth century. This may seem contradictory but can be explained by specific regional circumstances.

Urban Wood Supply and Urban Environmental History

For decades, historical research did not pay much attention to the question of wood supply. While A. H. Cole (1970) characterized the marketing of wood for fuel in nineteenth-century America as an “economic activity in need of a historian,”¹¹ it was Joachim Radkau who explained why the wood supply of preindustrial European cities had been of little interest to historians.¹² Urban historians, Radkau argued, often concentrated their research on issues inside a town's walls and failed to consider the way that cities were interconnected in networks of trade, supply, food and waste disposal.¹³ Political and forest historians were interested in the modern territorial state and state forest administration, seen as the “winners” of the political, social and economic transformation taking place during the late eighteenth and early nineteenth century. In 1993 Martin Melosi called for an environmental approach to urban history: “What remains to be done is . . . [to] broaden the work of the internalist scholars to extend the study of growth, infrastructure and pollution well beyond the city limits, and second, coax the scholars of humans and the natural world into the cities.”¹⁴ Clearly, his appeal has been heard on both sides of the Atlantic. The third international conference on urban history in 1996 focused on urban energy supply.¹⁵ In this context Joachim Radkau tried to solve the preindustrial “mystery of urban firewood supply” by defining different types of cities with regard to the different situations they had to deal with when managing their supply.¹⁶ The environmental history approach in urban history continued to gain in significance with further research.¹⁷ Based on the work of the Deutsche Forschungsgemein-

schaft project, *Holzversorgung als kommunale Aufgabe. Stadt und Wald im 18. und 19. Jahrhundert*, a conference in 2001 focused on southern Germany and Austria from 1750 to 1850, comparing problems and developments in urban wood supply in towns of different size, geographical situation and legal status.¹⁸ Freytag and Piereth outlined the different fields of problems and politics associated with urban wood supply, particularly in the nineteenth century. These included: economic changes, such as deregulation, liberalization, new common markets (*Zollverein*) and industrialization; state-building, including the integration of former independent cities into new territorial states and the conflict over communal constitutional rights; social policy, including communal and governmental responsibilities in dealing with urbanization, demographic growth and pauperism; and resource management issues such as forest policy, the discourse regarding wood shortages and the substitution of fuel wood.¹⁹

Adopting Reinhard Koselleck's famous term, Günther Bayerl characterized the eighteenth century and its utilitarian view of nature as a "*Sattelzeit*"²⁰ (a transitional phase between two epochs), providing the intellectual base for the new dimensions of industrialized exploitation realized in the late nineteenth and twentieth century.²¹ The regional evidence concerning Regensburg's wood supply suggests the late eighteenth and nineteenth century was a "*Sattelzeit*" in European urban environmental history. The city's management of major processes of political, social and economic transformation has to be seen as closely connected to its resource management and its view of natural resources.

This article provides a short outline of the different stages of Regensburg's development, as outlined above, and discusses the city's policy and the documented discourse on resource management. In this context the article discusses the coexistence of—even the struggle between—factors of conservation and stability with those of innovation—"die Gleichzeitigkeit des Ungleichzeitigen," in the words of Reinhart Koselleck.²² In addition to recognizing the vital role that issues of social organization play in dealing with natural resources and urban development, this article also incorporates the results of research in the economic and political history of Regensburg in the period under discussion.

A City Without a Hinterland

For centuries, the early modern imperial town of Regensburg was an independent enclave surrounded by Bavarian territory. The Bavarian princes, however, never entirely accepted the loss of their former medieval capital. As a consequence, they kept trying to regain the city, both through warfare and by exerting political and economic pressure.²³ Due to these political circumstances, as well as to the small size of its own

territory, Regensburg's supply of any kind of forest and agricultural products was the source of constant problems and frequent crises. Regensburg's building authority (*Bauamt*) was responsible for the city's wood supply and also organized the wood trade, but its scope was limited; in the late eighteenth century, for example, the *Bauamt*'s activities in trading construction wood were terminated.²⁴ Blockading Regensburg's import of cereals or wood was a normal instrument of Bavarian politics toward the town, during the Thirty Years' War and the eighteenth century alike.²⁵ In the mid eighteenth century Regensburg was surrounded by a belt of newly erected customs checkpoints. The new Bavarian customs order, introduced in 1765, brought further restrictions.²⁶ In 1768, a Bavarian wood depot was erected on the banks of the Regen River near the village of Reinhauen. From now on the major part of the wood that was destined for the town was no longer allowed to be unloaded at Regensburg's central *Holzlände*.²⁷ Instead, the Bavarian government dictated that the wood had to be landed at the Bavarian depot.²⁸ In addition to their impact on imperial Regensburg, the Bavarian restrictions also affected the Holy Roman Empire's diet situated in Regensburg and its resident diplomats. The situation escalated in 1771–72, when considerable political pressure throughout the *Reich* was necessary to force Bavaria to loosen its restrictions.²⁹

By the eighteenth century, Regensburg, in essence, existed without a hinterland. In this era even a coach trip outside the city's boundaries was subject to a special tax ("Promenadesteuer").³⁰ When provisioning wood, the most common experience for Regensburg's inhabitants was not contact with woodland or foresters, but with Bavarian customs officers. And that was a risky undertaking, as Regensburg's complaints to the Bavarian elector Max III Joseph (1745–1777) prove.³¹ In 1767, a cartwright from Regensburg bought an oak tree from a farmer in the hinterland and paid 3 fl.³² Following the Bavarian customs order he had to pay 58 x.—almost one third of the price—in tax for the import of one tree. But, to render the transport easier, the tree had been cut into three pieces. As a consequence, the customs officer demanded a tax more than three times higher: 2 fl. 56 x.—almost 100 percent of the price. Under these circumstances the deal fell through and the farmer went home with the timber while the cartwright was left empty-handed. When Regensburg's cartwrights addressed their demands for wood to the town's bishop, whose Donaustauf and Wörth forests, though not situated far from the town, were separated from it by Bavarian territory, they pointed out that they could not get the material from anywhere else.³³ But even the bishopric practiced an increasingly severe export policy against the city, although its own foresters confirmed that the actual amounts of exported wood did not harm the development of the forests.³⁴

In the summer of 1768 Gottfried Ziegler, a joiner, had an experience with Bavarian customs officers quite similar to that of his cartwright colleague in 1767. Upon purchasing 103 planks of oak in Vohburg, a small market place about 55 km away from Regensburg, the local administration granted him permission for the export. However, the transport was stopped at the customs checkpoint of Abbach near Regensburg. The Bavarian customs officers did not allow Ziegler to import the wood into the city. Like Regensburg's coopers before him, the joiner was told that he was obliged to get his supply from the Bavarian timber depot of Lechhausen near Augsburg and therefore he had to address Anton Ott, a timber merchant from Schongau. What made Abbach's officers refuse the export? And why did they refer to a timber depot situated more than 100 km away? Following a mercantilist program and a policy of forest protection known as *Waldschutzpolitik*,³⁵ Bavaria had installed a system of strict export controls for wood, one which was not directed only at Regensburg. In 1748 the Lechhausen timber depot was constructed in order to control the supply of the imperial town of Augsburg as well as the wood trade on the river Lech, which flows into the Danube and was therefore connected to the most important waterway for exporting wood from Bavaria towards Vienna.³⁶ Anton Ott, a river driver and wood merchant engaged in the *Taufelholz* (oak used for the fabrication of barrels) trade, had been given a contract, written in 1768, giving him a monopoly on trade with any kind of construction timber (*Schnitt- und Taufelholz*) derived from oak. The clear intention was to take the wood trade out of its regional context and to establish a centralized control mechanism over all relevant activity in the country. A small enclave like Regensburg, therefore, became a victim of the broader socioeconomic and environmental program of the Bavarian state.

Since Regensburg effectively had no hinterland, urban life was disconnected from the forests outside the town's wall. As a result, the majority of people living in the town experienced a certain alienation from the forests from which they received their wood. Their relationship to wood as a material for fuel and construction purposes was primarily one of consumers facing a constantly difficult supply. The urban alienation from the origins and production of natural goods—here founded on political circumstances—seems like a blueprint of many people's experience in modern industrialized and urbanized societies. But there is also a spatial dimension to this alienation; because of the town's political situation vis-à-vis its hinterland, in the seventeenth and eighteenth centuries few of Regensburg's citizens had much experience with the local forests. There was no forest in the city's territory where walking (*Spazieren*) could develop as part of urban leisure culture as it did in the hinterland of other early modern cities.³⁷ The circumstances in the city were far from those in

Nuremberg, where a baroque garden culture developed outside the city walls under the control of the city's forest authorities.³⁸ The greatest concentration of trees in Regensburg's territory in the late eighteenth century was not in a forest, but rather on an avenue granted to the city by the German Emperor's first commissioner (*Prinzipalkommissar*) at the Empire's diet, Carl Anselm von Thurn & Taxis, in 1779.³⁹ Planted between 1779 and 1785, two parallel lines of approximately 1,500 trees followed the outside of the town's wall. Regensburg's citizens and magistrate gratefully printed a medal addressed to Thurn & Taxis in recognition of the contribution his gift had made to urban life by facilitating "public walking" ("ob additum urbi ambulationis publicae").⁴⁰ Regensburg's authorities also organized projects on the Danube islands, *Oberer Wöhrd* and *Unterer Wöhrd*. On the *Oberer Wöhrd* the city's *Bauamt* planted a tree-lined avenue as early as 1654, and on the *Unterer Wöhrd* three lines of 27 oaks were planted in 1781.⁴¹ When Regensburg's authorities started to plant avenues, which Hans Walden has characterized as "public green spaces created for the purpose of leisure and to offer the illusion of an urban forest," they were not merely transforming the landscape by reshaping an existing constellation of woodland and open land; they were, in fact, constructing the green parts of the urban secondary environment. But even this could not be realized with the city's own natural resources. When the masters of Regensburg's cooper trade granted Regensburg several hundred willow trees in 1783, they had to import them from Nuremberg.⁴²

The Principality's Capital

When Karl Theodor von Dalberg assumed the office of *Fürstprimas* in 1802/03, he created a forest office as part of the principality's government, thereby formally addressing the issue of the town's wood supply. As a result of the regulations of the *Reichsdeputationshauptschluss*, promulgated in 1803, the former archbishop of Mainz and archchancellor of the Holy Roman Empire received a newly created territory around the principalities of Aschaffenburg and Regensburg and the earldom of Wetzlar. The Regensburg principality consisted of the former bishopric, the former imperial town and the monasteries formerly subject to the Empire.⁴³ In the new Regensburg territory, Dalberg was confronted with three fundamental issues: he inherited a bankrupt city with approximately 1.5 million fl. of debt,⁴⁴ he gained the former bishopric with its huge and potentially valuable forests;⁴⁵ and finally he was confronted with the geographical handicap of a town that was still surrounded by Bavarian territory and that the Bavarian government was keen to absorb.⁴⁶ Fol-

lowing a rationalist political and economic program, Dalberg's first priority was to consolidate the state's finances by establishing efficient administrative structures and improving the territory's economic power.⁴⁷ To this end approximately 51,000 *Tagwerk* of forested property were subject to particular attention by the new forest authority.⁴⁸ Following the economic principles of the new forest science,⁴⁹ woodland was measured and estimated and a new forest commissioner named Oelschläger collected information on the principality's forests and planned their future organization.⁵⁰ A manual was purchased for Dalberg's foresters and the seeds of forest plants were imported from Tirol.⁵¹ Although the Dalberg administration attempted to manage the state forests from a strictly economic point of view, it also tried not to neglect traditional rights of usufruct, the requirements of agriculture and rural society and Regensburg's urban wood supply. However, the removal of forest litter for agricultural use, for instance, shows a certain governmental naivety toward resource management in everyday agricultural life. While Oelschläger claimed that the transfer of litter from the forest to arable land could not be completely stopped, Dalberg insisted that the litter was necessary for a healthy forest and that it should only be taken from hollows where wind had piled up the material.⁵² As far as the capital's wood supply was concerned, government policy tried to harmonize the state's fiscal interests with those of wood traders and urban consumers. When the Dalberg government planned to augment the forest tax (*Stammrecht*) for wood which was sold from the forests near Donaustauf and Wörth to the principal town of Regensburg and the Bavarian town of Straubing, Oelschläger carried out a careful study to estimate the costs that arose from cutting the trees, the transportation of the wood to the Danube river, loading and shipping, losses on transport, unloading and transport within the city.⁵³ His calculations clearly show that he was not only interested in the state's potential profits, but that he was also conscious of the possible consequences that changes in the tax code might have for Regensburg's wood trade.⁵⁴ Therefore, he suggested only a minimal increase in the forest tax (*Stammrecht*) for coniferous wood, where there was only a small profit to be made by Regensburg's timber traders, but a more significant increase for beech.⁵⁵

In the end, the forest's value as a financial resource outweighed its social welfare function. The Dalberg administration's most notable project dealing with the principality's forest resources was outlined in the instruction for the new Deputation of Commerce (*Kommerzien-Deputation*) in December 1808.⁵⁶ The instruction assumed that the Dalberg state held approximately 50,000 *Morgen* (approximately 31,500 acres) of forests. The population of the duchy of Regensburg was estimated at 26,000. According to this document, the average inhabitant of the duchy consumed half

a *Klafter* of hard wood and one *Klafter* of soft wood including the equivalent amount of small pieces of wood, burl wood and brushwood per annum. The further assumption was that one *Morgen* of forest provided an average of one *Klafter* of soft wood and half a *Klafter* of hard wood per annum. The result of the calculation was that 25,000 to 26,000 *Morgen* of forest would be enough to supply the principality's inhabitants with wood. The estimate took into account further factors that could diminish the area of woodland suitable for clearing: forests in poor condition, usufruct rights and forests situated in areas not suitable for agriculture. Finally authorities calculated that 10,000 *Morgen* could be transformed into pasture and arable land. For the following ten years, authorities advocated cutting approximately 1,000 *Morgen* annually, thereby increasing annual forest earnings from 40,000 fl. to 100,000 fl. The Deputation of Commerce, according to the plan, would sell the wood and organize the new system of awarding and exporting Regensburg's artisanal products. Parts of the *Frauenholz* near Kelheim were slated to be cleared first, while the owners of forestal usufruct rights were to be compensated with woodlands in the immediate vicinity. Also, since the *Frauenholz* was situated on Bavarian territory, the Bavarian authorities had to be persuaded of the plan's desirability.⁵⁷ The anticipated gain from the project was that it would discharge the principality's debt burden as well as stimulate the local economy.

From the records we know that the clearing of forests was indeed initiated, but the Napoleonic Wars prevented the proper use of the timber. On April 23, 1809, parts of the city, occupied by Austrian soldiers at the time, were severely damaged and burned by Napoleon's troops. A total of 135 buildings were destroyed during this incident.⁵⁸ Under these circumstances the wood taken from the *Frauenholz* could not, as projected, be used as a stimulus to local production. Instead, the entire supply was used for the reconstruction of the damaged districts.⁵⁹ Due to the war, as well as to the absorption of Regensburg into Bavaria in 1810, it is not possible to judge the long-term economic outcome of Dalberg's policy of boosting trade and economic growth through forest clearance. However, conclusions can be drawn concerning the relationship between the city and regional forests under the influence of Dalberg's policy. The urban economy was the key issue in the duke's economic and political planning and as a result the management of the regional forests was reorganized along strictly utilitarian lines. Like the agricultural hinterland, woodlands had to serve the state's financial needs and urban economic development. Under such circumstances, the city could benefit from a relatively secure timber supply even if Bavarian restrictions still presented something of an obstacle to bringing wood into town.

City and Territorial State

There is no indication that Bavarian authorities continued with Dalberg's ambitious project. Nor is there any evidence that suggests that the Bavarian state was particularly interested in Regensburg's wood supply. The above-mentioned files documenting the negotiations over the erection of a wood depot in the 1830s testify to a struggle between the state and the city over the control and obligations of the urban wood supply. The state's initial offer was clearly motivated by the intention of finding a regional customer for the huge amounts of wood that had been brought down by storms, though this intention was veiled by an expression of paternal social concern for the city's supply. As part of its 1830 restructuring proposal, the regional Department of Internal Affairs (*Regierung des Regenkreises—Kammer des Innern*) suggested the possibility that the state could, if necessary, establish and run the depot under its own direction if the city offered the required territory.⁶⁰ However, the Department of Finance (*Regierung des Regenkreises—Kammer der Finanzen*), which was responsible for the administration of forests, was less amenable. The only thing it agreed to was selling the wood at the price of the forestal tax and accepting payment in installments.⁶¹ Arguing that after removing the storm-cracked wood from the forests there would be no wood production and sale from these forests for several years,⁶² the state authorities made clear that their actions followed the conditions of a market economy. In this context, it is important to note that the state was an actor within the market, not just an institution controlling it and defining the legal framework. In many nineteenth-century German territories the state was the biggest owner of woodland and therefore had a virtual monopoly in supplying wood to the market. Based on his studies on the Bavarian policy in the Rhine Palatinate (which was part of Bavaria from 1816 to 1940), Bernd-Stefan Grawe notes that during the early nineteenth century the motive of economic gain outweighed the motive of social obligations within the wood marketing policy of the state's forest administration.⁶³ The forest administration increasingly used auctions in order to improve revenue and guided the price policy among private merchants. However, Grawe sees no evidence that shortage of supply was used intentionally in order to inflate prices. But this was exactly what Regensburg's urban authorities blamed the state's forest administration for in 1837.

In 1830, urban authorities were not yet ready to take the economic risk of building a communal wood depot that would guarantee the wood supply for the urban population. They pointed out that they actually had to compete with a price level of 4 fl. 39 x. per *Klafter* offered by private merchants at the city's *Holzlände*. The state had demanded a forest tax of 2 fl. 42 x. for the wood that was taken from the *Frauenholz* near Kelheim

and affirmed that it could be sold at Regensburg's *Holzlände* for 5 fl. 30 x. to 6 fl.⁶⁴ In contrast, a commission of the magistrate, having visited the *Frauenholz*, estimated that the wood, which was described as very solid, could not be sold in Regensburg for more than 4 fl. Apart from that, the commission complained that the pathways were in a bad condition and the *Klafter* had been loosely assembled (*sehr durchsichtig aufgerichtet*).⁶⁵ In addition to setting a low tax, providing delivery to the *Holzlände* and enabling payment in installments, the commission recommended that the state should also provide the palisade wood needed for fencing the depot.⁶⁶ The magistrate found one private wood merchant particularly irritating. This merchant insisted, somewhat polemically, that the state would only win and the city could only lose in this deal.⁶⁷ According to the author of the study, wood marketing did not pose any risk to the state. The state already possessed the wood, could organize cheaper opportunities for transport and more efficient measures of security against theft. The Chamber of Finance made evident the state's priorities when it declined the city's conditions, characterizing them as not being beneficial to the state but only beneficial to the local population.⁶⁸

During the following years the Bavarian state was unable to outline a clear position for dealing with the communal wood supply. The question of urban wood supply in the German *Vormärz* was closely related to political tensions after the 1830 revolution in France, the economic consequences of the *Zollverein* free trade system (founded in 1834) and population growth in many cities.⁶⁹ Facing extreme price rises for fuel wood, contemporary authors reminded the state of its obligation to ensure the welfare of the poor. Wolfgang Piereth has noted that wood was the only indispensable good which was owned by the state in considerable quantities.⁷⁰ The Bavarian government was in fact concerned about the social and political instability arising from the fuel wood issue. A commission and a special officer (Franz Berks at the Ministry of Internal Affairs) were charged with observing the market.⁷¹ The regional district governments were ordered to communicate instructions for an efficient use of communal forests and optimized wood supply. They were also supposed to ask the communal authorities for reports about the management of communal wood, the steps taken for economizing fuel wood and the possibility of introducing wood substitutes. The correspondence between the regional government of the Regen District and the magistrate of Regensburg show how the state's bureaucratic activities did not take specific regional frameworks into sufficient consideration. On behalf of the central government in Munich, the regional government decreed that the Regensburg magistrate promote an earlier start to and an intensification of the wood harvest in the communal forests. Local authorities were also charged with ensuring that the poor were supplied with wood at an

affordable price.⁷² In his response, the magistrate noted that the city did not possess any communal wood and therefore the supply of cheap wood could not be guaranteed without help from the state's authorities and the state's nearby forests.⁷³ The second governmental decree gave several orders to be realized immediately: the search for and exploitation of nearby deposits of peat, soft coal and hard coal; the introduction of energy-saving ovens and stoves; the introduction of public common stoves for bakers; the installation and management of markets for the wood trade where necessary; and the abolition of intermediate trade and speculation in wood.⁷⁴ The regional government demanded the magistrate report on the status of these points within eight days.

Regensburg's response to these decrees does not enable us to judge whether the city's *Holznot* was a real or merely a rhetorical phenomenon.⁷⁵ A letter from Heinrich Wilhelm Sondermann, one of Regensburg's city district mayors, provides strong evidence that a syndicate of local traders who restricted the delivery of wood to the town was largely responsible for the price rises.⁷⁶ The city's letter provides us with three important pieces of information.⁷⁷ First, in the late 1830s fuel wood prices in Regensburg had reached a level critical enough to raise concerns with the communal authorities. Second, Regensburg's authorities tried to avoid a wood shortage by using substitutes and energy-saving technical innovations. The letter noted that the magistrate and the Council of Social Welfare (*Armenpflegschaftsrat*) had bought 100,000 pieces of peat in Neuburg/Danube (approximately 90 km upstream from Regensburg). Twelve thousand pieces were sent in one early transport. Although there were no coal deposits within the city's territory, the report mentioned the private initiative of a soft coal mine near Kneiting, northwest of the city, which was characterized as being unprofitable for the shareholders. In the city's institutions for social welfare (*Armenanstalten*), tiled stoves had been replaced by iron circular ovens (*Circular-Öfen*). The city also reported an increase in purchases of energy-saving stoves among the town's citizens, but rejected the idea of introducing public baking ovens as impractical. The third important piece of information from the city's report was the ongoing feud between the state and the city concerning the state's influence on and responsibility for the communal wood supply. Apart from the speculation of local wood merchants, the magistrate lists several reasons for rising prices that were related to the state's policy. These included: a reduction in wood production from the public forests after the windstorms of the early 1830s; the wood consumption of the brick kilns in Ingolstadt, approximately 70 km upstream from Regensburg, where the state was building huge military plants; and finally speculation on the opening of the channel connecting the Main and the Danube, a project related to the state's infrastructure policy. The magis-

trate concluded its analysis with a very specific demand: that the state's police and forest authorities in the Kelheim region deliver their hoards of wood to the Regensburg market. By doing so they could show local consumers the true price of wood ("die wahren Holzpreise") and wood merchants the limits of their practices ("den Holzhändlern so Schranken aufzeigen"). The lack of consistency in the state's policy can be seen in further discussion of the possible construction of a wood depot: whereas the state's internal affairs authority continued to demand the erection of a timber depot under the city's direction,⁷⁸ the state's regional forest administration refused to play a constructive role in this issue, and later tried to benefit from wood auctions and intermediate trade.⁷⁹

City and Wood

The magistrate's report from 1837 also mentions a growing consumption of wood by a growing number of local industries, including a sugar refinery, a steam shipyard, a porcelain factory and a pencil factory. But Regensburg did not participate in the process of economic and industrial development, demographic growth and urbanization to the same extent as other southern German cities during the first half of the nineteenth century. Economic historian Karl-Heinz Preißer has characterized the industrial development of the Upper Palatinate Region in the nineteenth century—including Regensburg—as a case of "retarded industrialization" (*zurückbleibende Industrialisierung*).⁸⁰ Unlike the Bavarian capital of Munich or the Franconian metropole Nuremberg, where the population doubled in the first half of nineteenth century, Regensburg saw only moderate growth. Between 1812 and 1852, the population grew from 18,374 to 25,898.⁸¹

Comparing Regensburg's fuel wood consumption of the late eighteenth century with figures from the 1830s reveals considerable stability: following Bavarian figures, the imperial town of Regensburg in the year 1770 imported 25,656 ¾ *Klafter* of fuel wood, 19,198 ¼ *Klafter* from Bavaria and 6,458 ½ *Klafter* from other territories.⁸² In Bavaria 5,628 *Klafter* were cut in the district of Zwiesel in the *Bayerischer Wald* and floated down the river Regen.⁸³ Due to ongoing discussions about the installation of an urban wood depot in the late 1830s, data was also collected in 1837. The magistrate had carefully investigated the annual amount of fuel wood needed by private households, artisans and industry, public authorities and schools. It concluded that the city—not including the Thurn & Taxis court⁸⁴—needed 27,491 *Klafter* in total, 7,503 *Klafter* of which were consumed by breweries and factories, with 918 *Klafter* required for public offices and social welfare.⁸⁵ This was not a particularly substantial rise compared to the amount documented in 1770.

As a result of its comparatively retarded growth and industrializa-

tion, Regensburg's wood supply may not have played the same crucial role as in other regions during the first three decades of the nineteenth century. The Franconian problem of wood shortage and rising prices after the foundation of the *Zollverein* free trade zone in 1834, which saw a substantial increase in wood exports towards the more industrialized Rhine-Main region and further northwest,⁸⁶ had a delayed effect on Regensburg's wood market. According to the Regensburg magistrate, speculation in wood prices, fueled by the imminent construction of the Donau-Main Canal, began to increase considerably. By 1845, the completion of this project made it possible to transport huge amounts of wood from the *Bayerischer Wald* westward.⁸⁷ In the opinion of city-district mayor Heinrich Wilhelm Sondermann, the rising prices were clearly due to speculation or, in his colorful phrase, to "*Kunst und Wucher*".⁸⁸ For this reason, the city's authorities opened a second wood landing on the *Unterer Wöhrd* and once more intensified their planning for the construction of a public wood depot. This intervention into the local wood trade was meant to ensure the city's supply and help maintain affordable prices. But the development of a communal policy also had a further goal: to improve fire prevention by concentrating fuel wood storage for private households, businesses and public institutions outside the city. Beside the internal investigations of the town's wood requirements, the city's authorities also wanted to gain insight into the experiences of other cities with interventionist wood marketing practices. They addressed letters to Augsburg, Bamberg, Munich, Passau, Nuremberg, Würzburg and Mainz, asking the cities to report back on several matters: whether their wood depots were organized as private or communal enterprises; whether they were designed exclusively for trading or also for storage; what their storage capacities were; what the tax on storage was; what costs arose for administration; whether the institutions succeeded in avoiding speculation—"Holzwucher"; and what price level was in line with the price level of private trade.⁸⁹ The responses indicate that each city chose very different strategies depending on the different regional environmental, economic and political frameworks.

In the first half of the nineteenth century Regensburg was not able to construct as large a wood depot as many had hoped. The foundation of a private association (*Holzverein*) similar to that in Mainz was also unsuccessful. But another private initiative gained importance. The merchant Simon Maier-Loewi had bought a huge area of woodland near Zwiesel in the *Bayerischer Wald* and in 1840 began to float logs down the river Regen. He tried to accelerate the planned extension of the Regen and offered to cooperate with the city in organizing the float and the sale of wood in Regensburg for a moderate price.⁹⁰ Maier-Loewi's initiative promoted the specific regional development of wood transport in the second

half of the nineteenth century, a development which proved remarkably advantageous to the city's wood supply and prices. The state took constructive measures to make the river Regen more accessible for wood transportation. As a result, Maier-Loewi and, later, other private merchants, organized mass log floats on the Regen. From 1859 onward, the state also began to organize large log floats, bringing thousands of *Klafter* of fuel wood and timber into town. After 1855, Regensburg had its own landing point on the banks of the river Regen in the village of Steinweg. Between 1853 and 1862, the city organized its own campaigns to float logs downriver for fuel wood and timber.⁹¹ Unlike the state's forest administration near Regensburg, the one in the *Bayerischer Wald* offered huge amounts of wood for a moderate forestal tax. Now the city could not only manage its own supply; it also gained importance as a log reloading point, first to the Ludwig-Main Channel and later to the railway system. Due to this specific development, the wood processing industry became a nucleus of regional industrial and economic development in the second half of the nineteenth century.⁹²

Resource and Transport

The study of Regensburg's wood supply history makes one point very clear: whether we examine the restrictions against Regensburg's coopers in the eighteenth century, the permission of Dalberg's authorities for a citizen from Donaustauf to export charcoal from the local forests to Vienna in 1804⁹³ or the work of the pencil factory Rehbach (established in Regensburg in 1821), which was interconnected with a global network of supply (cedar wood) and distribution,⁹⁴ the wood supply issue is never limited to just the local context. Questions of regional forest use and forest development were linked to the fields of regional and supraregional wood marketing, politics and transport. For geographical and political reasons water transport was a factor of strong and lasting influence on Regensburg's wood supply. In the eighteenth century the fact that transport on the river Danube provided the most significant way of exporting wood from Bavaria provoked the Bavarian state to seize control over this waterway and the cities situated on its shore. The advantages of rivers—which for a long time were the most efficient paths for the transportation of wood—came at the cost of enormous amounts of construction wood required for building and maintaining bridges, landing points and bank reinforcements.⁹⁵ Since the wood landing and storage areas were inevitably situated next to the river, they were frequently affected by floods and ice floes that flushed the hard-won wood away. Furthermore, regardless of the political constellation in any given place, the entrepreneurs engaged in the wood trade in any period were highly influential in determining the local wood supply, and they frequently abused this power.

The coming of the railroad was also an important factor in the history of Regensburg's wood supply. The region's eventual interconnection with the new railway transportation system in 1859 was not a linear process of innovation, but rather a development caused by a variety of different factors. At first, the policy of the Bavarian King Ludwig I (1825–1848), who preferred the construction of waterways, avoided the early linking of the region to the railway system. At the same time, huge amounts of wood needed for the construction of the Austrian railway system were floated towards Austria on the Danube.⁹⁶ The development of upstream transportation by steamship on the Danube, Regensburg's connection to the railway system, and the linking together of Bavarian and Bohemian railways in 1862 changed the framework of the city's local wood supply as well as its trade relations. Imports of cheap Bohemian hard coal and construction wood from Southeastern Europe now reached the region. Apart from this, however, the use of regional wood, floated to Regensburg on the river Regen, remained an important part of the communal supply until the early twentieth century.

Conclusion

When examined from a historical perspective, Regensburg's wood supply is part of a broader web of social, economic, political and ecological relationships. These include: aspects of communal policy, regional forest management and development, the surrounding territorial state's politics and regional and supraregional wood marketing and transportation. Urban development in the late eighteenth and nineteenth century was influenced by the fundamental process of political, social and economic transition that changed the face of European societies and economies and established—an important point in terms of environmental history—the fossil-fuel energy regime. The way the city's representatives organized the city's supply of fuel wood and timber has to be discussed in this specific context. Does the issue of urban wood supply in the eighteenth and nineteenth century qualify as an indicator of a transition period, a "*Sattelzeit*" in urban environmental history? The development of Regensburg's wood supply, as it has been analyzed in this article, seems to offer a fitting example for supporting this assumption.

The study of Regensburg's wood supply also confirms Günter Bayler's argument that attitudes toward nature became increasingly utilitarian in eighteenth-century Europe, thereby providing the intellectual base for a new dimension of industrial exploitation in the nineteenth and twentieth centuries. The process of wood's commercialization (wood as a raw material as well as woodland as a part of the landscape) de-

terminated the state's policy in Bavaria during the late Old Regime as well as in Dalberg's principality and in the nineteenth-century Bavarian kingdom.⁹⁷ Nineteenth-century Regensburg, which no longer existed as an independent political entity, insisted on the state's traditional obligations concerning the city's supply but met a Bavarian state that—more than the short-lived Dalberg regime—had difficulties in balancing social responsibility with economic interests arising from its possession of wood. Both the state and local governments failed to find a consistent strategy between interventionist and market economist options.⁹⁸

In broad terms, the history of Regensburg's wood supply can be seen as a struggle between the desire for conservation and stability on the one hand and the need for change and innovation on the other. At the very time when the construction of the Austrian railway system required enormous amounts of wood, much of which was transported down the Danube from Bavaria, King Ludwig I's rather romantic distaste for railways and his promotion of the channel building project connecting the Danube and the Main delayed Regensburg's linkage to the railway system for one or two decades. On the other hand, Simon Maier-Loewi's successful private initiative of the mid nineteenth century was based on a rather conventional transport option: floating the logs that were harvested in the mountains of the *Bayerischer Wald* region down the river Regen. The initial refusal of Regensburg's magistrate to cooperate with Maier-Loewi needs to be seen in the same context as the long-running dispute over the establishment of a wood depot. It cannot be adequately characterized as a careful and provident strategy or a form of communal protest against the state's politics; rather, it illustrates the inability of traditional communal politics to react adequately to changing requirements in resource management.

Since the Middle Ages, Regensburg's ecological footprint has extended well beyond the region over which it had political control.⁹⁹ The fact that urban resource management officials were unable to manage the areas from which the town drew its wood supply meant that they were constantly exposed to the influence of external factors. These circumstances differed from those that determined other cities' wood supplies. A comparative study of urban resource issues would likely demonstrate that a city's supply of natural resources plays an integral role in the way it organizes its relationship with its natural environment under changing political, economic and demographic frameworks. Urban wood supply at the beginning of modernity, at the brink of the "networked city," is therefore a subject that deserves a closer look from an urban environmental history point of view.

Notes

¹ The administrative districts of the early nineteenth-century Bavarian kingdom were named after rivers. The river Regen flows from the mountainous regions of the *Bayerischer Wald* to Regensburg, where it meets the Danube.

² Karl G. Kick, "Städtische Sozialpolitik," in *Geschichte der Stadt Regensburg*, 2 vols., ed. Peter Schmid (Regensburg, 2000), 1:349.

³ As a measure of capacity, one Bavarian *Klafter* equaled approximately 3.13 cubic meters.

⁴ Magistrate of Regensburg to the government of the Regen District, Chamber of Internal Affairs, Regensburg, August 18, 1830, Stadtarchiv Regensburg (Municipal Archive of Regensburg, hereafter: StadtA Rgbg.) ZR-I 8107.

⁵ Ibid. See also Wolfgang Piereth, "Mitten im Holze aus Mangel an Holz kaum eine Suppe kochen können. Staatliche Forstpolitik und städtische Holzversorgung im vormärzlichen Bayern," in *Städtische Holzversorgung. Machtpolitik, Armenfürsorge und Umweltkonflikte in Bayern und Österreich (1750–1850)*, Beihefte der Zeitschrift für Bayerische Landesgeschichte, Reihe B, eds. Wolfram Siemann, Nils Freytag and Wolfgang Piereth (Munich, 2002), 141–154.

⁶ Government of the Regen District, Chamber of Finances, to the magistrate of Regensburg, September 11, 1830, StadtA Rgbg. ZR-I 8107.

⁷ Ibid.

⁸ Martin Knoll, "Regensburg, der Reichstag, der Kurfürst und das Holz. Aspekte eines Ressourcenkonflikts um städtischen Bedarf, reichspolitische Repräsentation und territoriale Wirtschaftspolitik im späten 18. Jahrhundert," in *Städtische Holzversorgung*, eds. Siemann et al., 39–54. Two views of Regensburg painted in 1725 by Samuel Friedrich Schmieder (1691–1771) show a hinterland that is dominated by open land. See Peter Schmid and Clemens Unger, eds., *1803—Wende in Europas Mitte. Vom feudalen zum bürgerlichen Zeitalter* (Regensburg, 2003), 377. A map of Regensburg's *Burgfrieden* drawn in 1765 by Jacob Sebastian Püchler shows the territory's borders separating it from any woodland; see image on page 79 of this article. For the development of the *Burgfrieden* and the conflicts arising around its borders, see Alois Schmid, *Regensburg. Historischer Atlas von Bayern/Altbayern* 10 (Munich, 1995), 147–151.

⁹ Michael Scherm, *Zwischen Fortschritt und Beharrung. Wirtschaftsleben und Wirtschaftspolitik im Regensburg der Dalbergzeit* (St. Katharinen, 2003), 242–246. I also want to say thank you to Michael for his help with smoothing out the worst linguistic kinks in this text.

¹⁰ For Bavarian state policy, see Piereth, *Mitten im Holze*, 148–152.

¹¹ A. H. Cole, "The mystery of fuel wood marketing," *Business History Review* 44 (1970): 359; See Joachim Radkau, "Das Rätsel der städtischen Brennholzversorgung im 'hölzernen Zeitalter,'" in *Energie und Stadt in Europa. Von der vorindustriellen 'Holznot' bis zur Ölkrise der 1970er Jahre*, ed. Dieter Schott (Stuttgart, 1997), 46.

¹² Radkau, "Rätsel," 44–45.

¹³ In 1979, a German conference discussed questions of supply and disposal in urban history for the first time. Rudolf Kieß' contribution to this discussion on urban wood supply did not transcend the then dominant forest history interpretation of early modern chaos followed by successful forestry and resource management guaranteed by the modern centralist state after 1800. See Rudolf Kieß, "Bemerkungen zur Brennholzversorgung von Städten," in *Städtische Versorgung und Entsorgung im Wandel der Geschichte*, ed. Jürgen Sydow (Sigmaringen, 1981), 98.

¹⁴ Martin V. Melosi, "The Place of the City in Environmental History," *Environmental History Review* 17 (Spring 1993): 19.

¹⁵ Schott, *Energie und Stadt in Europa*.

¹⁶ Radkau, "Rätsel," 48–61. Radkau's city types include: cities possessing their own large woodlands; cities where the geographical situation allowed the delivery of large amounts of wood via waterways; cities with mining industry or salt production; and cities that possessed the power to control the surrounding region and its natural resources. Kieß, "Bemerkungen," 79, had already introduced a more general distinction. He followed three leading aspects of urban wood supply: the question of resources, the legally defined opportunity to use these resources and the problem of transport.

¹⁷ For perspectives and state of research see Dieter Schott, "Resources of the City: Towards a European Urban Environmental History," in *Resources of the City. Contributions to an Environmental History of Modern Europe*, eds. Dieter Schott, Bill Luckin and Geneviève Massard-Guilband (Aldershot; Burlington, 2005), 1–27; Verena Winiwarter, "Plädoyer für eine Umweltgeschichte der Stadt," *Pro Civitate Austriae N. F.* 3 (1998): 7–15; Christoph Bernhardt, "Umweltprobleme in der neueren europäischen Stadtgeschichte," in *Environmental Problems in European Cities in the Nineteenth and Twentieth Century/ Umweltprobleme in europäischen Städten des 19. und 20. Jahrhunderts*, ed. Christoph Bernhardt (Munster; New York; Munich; Berlin, 2001), 5–23; Joel A. Tarr, "Urban History and Environmental History in the United States: Complementary and Overlapping Fields," in *Environmental Problems*, ed. Bernhard, 25–39. Due to the fact that environmental problems occur in a more concentrated form in big cities with their dense populations and their industrial development, it seems that European metropoles up to now have attracted more scientific attention than smaller towns. For instance, in Germany, Hamburg has an extraordinarily well-examined environmental history. See Arne Andersen, ed., *Umweltgeschichte. Das Beispiel Hamburg* (Hamburg, 1990); Charles Closmann, "Modernizing the Waters. Water Pollution and the Harbor Economy in Hamburg, Germany 1900 to 1960" (PhD diss., University of Houston, 2002); Charles Closmann, "The Currency of Contamination. Industrial Wastewater and the German Hyperinflation in Hamburg, Germany," in *Dealing with Diversity. Second International Conference of the European Society for Environmental History, Prague 2003, Proceedings*, ed. Leos Jelecek (Prague, 2003), 180–182; Hans Walden, *Stadt—Wald. Untersuchungen zur Grüngeschichte Hamburgs* (Hamburg, 2003).

¹⁸ Siemann et al., eds., *Städtische Holzversorgung*.

¹⁹ Nils Freytag and Wolfgang Piereth, "Städtische Holzversorgung im 18. und 19. Jahrhundert. Dimensionen und Perspektiven eines Forschungsfeldes," in *Städtische Holzversorgung*, eds. Siemann et al., 1–8.

²⁰ Reinhart Koselleck, "Einleitung," in *Geschichtliche Grundbegriffe. Historisches Lexikon zur politisch-sozialen Sprache in Deutschland*, 8 vols., eds. Otto Brunner, Werner Conze and Reinhart Koselleck (Stuttgart 1972–1997), 1:xv.

²¹ Günter Bayerl, "Die Natur als Warenhaus. Der technisch-ökonomische Blick auf die Natur in der frühen Neuzeit," in *Umwelt-Geschichte. Arbeitsfelder, Forschungsansätze, Perspektiven*, eds. Reinhold Reith and Sylvia Hahn (Vienna; Munich, 2001), 50.

²² Reinhart Koselleck, *Vergangene Zukunft. Zur Semantik geschichtlicher Zeiten*, 2nd ed. (Frankfurt/Main, 1984), 323–325.

²³ Peter Schmid, "Ratispona metropolis Baioariae. Die bayerischen Herzöge und Regensburg," in *Geschichte*, ed. Schmid, 1:51–101.

²⁴ "Übersicht der Stadt-Bauamts-Funktionen als Beantwortung der von der kurierzkanlerischen hohen Landeskommision diesseitiger Behörde vorgelegten Fragen," Regensburg 1802, State Archive Amberg (hereafter: Sta Amberg), Fürstentum Regensburg Geheime Kanzlei 83.

²⁵ Rainer Gömmel, "Die Wirtschaftsentwicklung vom 13. Jahrhundert bis zum Zweiten Weltkrieg," in *Geschichte*, ed. Schmid, 1:488; Wilhelm Kaltenstadler, "Bayerische Zollverfassung und Zollpolitik 1769–1777. Beiträge zur bayerisch-österreichischen Handelspolitik," *Zeitschrift für Bayerische Landesgeschichte* 30 (1967): 654–730; Roland Schönfeld, "Studien zur Wirtschaftsgeschichte der Reichsstadt Regensburg im 18. Jahrhundert," *Verhandlungen des Historischen Vereins für Oberpfalz und Regensburg* 100 (1959): 32–41.

²⁶ Knoll, *Regensburg*, 40–42.

²⁷ Wood from Bavarian production which was transported via waterway had to be landed at Reinhhausen. This was the major portion of the wood consumed in Regensburg. See Knoll, *Regensburg*, 50.

²⁸ *Ibid.*, 48–51.

²⁹ Kaltenstadler, *Zollverfassung*, 662–675.

³⁰ Michael Kubitza, “Regensburg als Sitz des Immerwährenden Reichstags,” in *Geschichte*, Schmid, 1:153.

³¹ Knoll, *Regensburg*, 45.

³² 1 Gulden (fl) = 60 Kreuzer (x).

³³ Applications to the bishop’s administration: Regensburg magistrate to Bishop Clemens Wenzeslaus, February 2, 1765, HStA Munich, Thurn und Taxis Abgabe 1974 30–1/70; Leonhardt Himler to bishopric’s “Hofkammer,” February 12, 1773 (praes.), Th. u. T. Abg. 31–2/8; Johann Conradt Heuerfeldt to bishopric’s “Hofkammer,” undated copy, before February 9, 1774, Th. u. T. Abg. 31–2/10.

³⁴ Forstamt Donaustauf to bishopric’s “Hofkammer,” Donaustauf January 25, 1786, HStA Munich Th. u. T. Abg. 30–1/82.

³⁵ Eckart Schremmer, *Die Wirtschaft Bayerns vom hohen Mittelalter bis zum Beginn der Industrialisierung* (Munich, 1970), 548.

³⁶ Knoll, *Regensburg*, 40–41.

³⁷ See Walden, *Stadt—Wald*, 393–401. Forensic records of Regensburg’s municipal archive report cases of Regensburg’s citizens being accused of going to regional woodlands to meet prostitutes there. Unfortunately no concrete locations are identified. In any case, whoever wanted to enjoy this kind of leisure activity had to leave the city’s territory. Thanks to Robert Grötschel for this information.

³⁸ See Gerhard Hirschmann, “Nürnberger Gartenkultur im Barockzeitalter,” in *Wald, Garten und Park. Vom Funktionswandel der Natur für die Stadt*, eds. Bernhard Kirchgässner and Joachim B. Schulte (Sigmaringen, 1993), 35–50.

³⁹ Eugen Trapp, “Beziehungs- und Grenzfragen. Regensburger Stadtbaugeschichte zwischen Aufklärung und Vormärz,” in 1803, eds. Schmid and Unger, 291–294. For the development of public green space in Regensburg between the seventeenth and nineteenth centuries, see Peter Morsbach, “Untersuchungen zur städtebaulichen Entwicklung Regensburgs in der 2. Hälfte des 18. Jahrhunderts,” *Verhandlungen des Historischen Vereins für Oberpfalz und Regensburg* 131 (1991): 145–149.

⁴⁰ Trapp, *Beziehungs- und Grenzfragen*, 292. However, Katharina Kellner indicates that the avenue was not created without conflict, as lower social classes were thereby prevented from engaging in their former practices of using the area outside the town walls for hanging their washing on clothlines, collecting litter, grazing their goats, etc. See Katharina Kellner, *Pesthauch über Regensburg. Seuchenbekämpfung und Hygiene im 18. Jahrhundert* (Regensburg, 2005), 180–182.

⁴¹ Kellner, *Pesthauch*, 178; Trapp, *Beziehungs- und Grenzfragen*, 287.

⁴² Trapp, *Beziehungs- und Grenzfragen*, 287. Obviously the city’s nursery, first mentioned in 1779, could not deliver this number of trees. See Kellner, *Pesthauch*, 178.

⁴³ § 25 “Reichsdeputationshauptschluss,” in *Quellen zum Verfassungsorganismus des Heiligen Römischen Reiches Deutscher Nation 1495–1815*, ed. Hanns H. Hofmann (Darmstadt, 1976), 344–345. For a short survey of Dalberg’s principality in Regensburg, see Jürgen Nemitz, “Zwischen Reich und Bayern. Das Fürstentum Dalberg,” in *Geschichte*, ed. Schmid, 1: 285–298.

⁴⁴ Scherm, *Fortschritt*, 213.

⁴⁵ “Beschreibung des Fürstentums Regensburg im Jahre 1808 in nationalökonomischer und finanzieller Hinsicht,” § 20: “In dem Domäneigentum des Fürstenthums Regensburg ist die Staatswaldung, welche von Stauf bis Straubing das Ufer der Donau begrenzt, die schönste Perle,” cited from Scherm, *Fortschritt*, 186, note 712.

⁴⁶ "Bemerkungen über die geographisch-topographische Lage des immediaten Territoriums des Fürstenthums Regensburg nebst Vorschlägen zu einer künftig zu bestimmenden Grenze," Regensburg, October 4, 1803, StA Amberg Fsm. Rgbg. Geh. Kanzlei 254.

⁴⁷ See Scherm, *Fortschritt*, 186–205.

⁴⁸ 26,650 *Tagwerk* of this property were situated in the Dalberg territory, the rest was distributed over different regions under Bavarian reign, see report by forest commissioner Oelschläger, Regensburg, June 1, 1804, StA Amberg Fsm. Rgbg. Geh. Kanzlei 155. One *Tagwerk* measures approximately 0.34 hectares.

⁴⁹ Being equipped with both the traditional empirical knowledge of foresters and hunters and the economic and scientific skills taught at contemporary cameralist faculties, authors like Georg Ludwig Hartig (1764–1837) and Heinrich Cotta (1763–1844) are seen as the founders of forest science in Germany. Their aim was to provide a scientific and economic basis for forestry and to professionalize the education of foresters. In the late eighteenth and early nineteenth centuries the first forestal academies, offering forest science as a subject of higher education, were installed in different German territories. See Karl Hasel, *Forstgeschichte. Ein Grundriß für Studium und Praxis* (Hamburg; Berlin, 1985), 219–247.

⁵⁰ Ibid. A paper written by state council Benzil, Regensburg, July 23, 1803, which comments on Oelschläger's report, refers several times to the economic forestry principles of Georg Ludwig Hartig (1764–1837). For Hartig's biography and position in contemporary forest science, see Kurt Mantel and Joseph Pacher, *Forstliche Biographie vom 14. Jahrhundert bis zur Gegenwart* (Hannover, 1976), 1:250–259.

⁵¹ Forest commissioner Oelschläger reported on April 19, 1807, that in autumn 1806 the forest authority had ordered seeds from Wilhelm Nagel in Saalfelden (Tirol) and that 4 lb. of ash seeds, 2 lb. of stonepine seeds and 54 lb. of larch seeds were delivered to be grown in tree nurseries, HStA Munich Th. u. T. Abg. 29–1/49.

⁵² Report by Oelschläger, Regensburg, June 1, 1804, and Dalberg's comment on the Oelschläger report, Aschaffenburg, August 1, 1804, StA Amberg Fsm. Rgbg. Geh. Kanzlei 155.

⁵³ "Vortrag," Regensburg, January 2, 1807, HStA Munich Th. u. T. Abg. 29–1/44.

⁵⁴ According to Oelschläger, the forest tax for pieces (*Scheiter*) of beech wood in Donaustauf forests was 2 fl. 45 x. per *Klafter*, whereas the average price paid in Regensburg in 1806 was 8 fl. 16 4/5 x. Depending on circumstances the total sum of costs and fees could reach 3 fl. 46 x. and reduce the possible profit for the merchant in Regensburg to 1 fl. 45 4/5 x. The possible profit from trading coniferous wood only was 5 4/5 x.

⁵⁵ Oelschläger proposed that the forestal tax for 1 *Klafter* of pieces of beech should be augmented from 2 fl. 45 x. to 3 fl., the tax for billets (*Prügel*) of beech from 1 fl. to 2 fl., but the tax for coniferous wood only from 2 fl. to 2 fl. 6 x.

⁵⁶ "His Eminence is convinced that it is important and necessary for the welfare of His good city to improve the trade of its artisans at a time when income and wealth are diminished by the end of the Holy Roman Empire's diet and by a reduced cash flow from abroad, and at the same time the Bavarian customs system restricts trade with locations in the vicinity.

The most important thing is to reenergize the activity of local artisans by paying awards, which enable them to sell records of their application and ability more cheaply than is possible in other regions or cities.

The implementation of such a project particularly requires a source of money . . . for paying the awards.

Even if forests are important because they provide fuel for the inhabitants and the material necessary for a well developed wood trade, it is nonetheless a fact that if there are more forests than necessary for the needs of the population, a state must act appropriately in cutting those forests and changing woodland into pasture, arable land and farms, where grounds are adequate and soil is fertile."

Instruction, Kop., exped. Regensburg December 21, 1808, StA Amberg Fsm. Rgbg. Geh. Kanzlei 25.

⁵⁷ State minister Frhr. v. Albini was ordered to contact Bavaria's first minister Mongelas. Albini was to point out that Dalberg's project was quite similar to contemporary Bavarian efforts to sell state forest. Note, Regensburg, January 3, 1809, StA Amberg Fsm. Rgbg. Geh. Kanzlei 25; "Commissorium für den fürstl. Domainen- und Forstrath Aschenbrüher," Regensburg, January 1, 1809, StA Amberg Fsm. Rgbg. Geh. Kanzlei 25.

⁵⁸ Trapp, *Beziehungs- und Grenzfragen*, 317–318.

⁵⁹ Dalberg, Secret conference to the Deputation of Commerce, Regensburg (exped.), December 18, 1809, StA Amberg Fsm. Rgbg. Geh. Kanzlei 25.

⁶⁰ Regional government of the Regen District, Chamber of Internal Affairs, to Regensburg's magistrate, Regensburg, August 14, 1830, StadtA Rgbg. ZR-I 8107.

⁶¹ Regional government of the Regen District, Chamber of Finances, to Regensburg's magistrate, Regensburg, August 26, 1830, StadtA Rgbg. ZR-I 8107.

⁶² Regional government of the Regen District, Chamber of Internal Affairs, to Regensburg's magistrate, Regensburg, August 14, 1830 StadtA Rgbg. ZR-I 8107.

⁶³ Bernd-Stefan Grewe, *Der versperrte Wald. Ressourcenmangel in der bayerischen Pfalz 1814–1870* (Cologne, 2004), 345–367.

⁶⁴ Government of the Regen District, Chamber of Finances, to Regensburg's magistrate, Regensburg, August 26, 1830, StadtA Regensburg ZR-I 8107.

⁶⁵ "Anmerkungen," StadtA Regensburg ZR-I 8107.

⁶⁶ Regensburg's magistrate to government of the Regen District, Chamber of Finances, Regensburg, September 7, 1830, StadtA Regensburg ZR-I 8107.

⁶⁷ "Gutachten über die Anlegung eines Holz-Magazins," Regensburg, August 29, 1830, StadtA Regensburg ZR-I 8107.

⁶⁸ "Die dießfalls angebothenen Bedingungen sind solcher Art, daß dabey nicht der Vortheil des Aerars, sondern jener der hiesigen Bevölkerung vorherrschend seyn dürfte," government of the Regen District, Chamber of Finance, to Regensburg's magistrate, Regensburg, September 11, 1830, StadtA Rgbg. ZR-I 8107.

⁶⁹ See Piereth, *Mitten im Holze*, 143–144. The 1837 edict of the Bavarian government, forwarded to Regensburg's magistrate by the regional government on September 7, 1837, StadtA Rgbg. ZR-I 8107, specifies the following set of reasons for the actual rise in fuel wood prices: a growing population, an enlarged market due to the *Zollverein*, the unusually long-lasting cold temperatures of the previous winters and the management of communal forests, which supposedly was not done in the right way for several decades.

⁷⁰ Piereth, *Mitten im Holze*, 144.

⁷¹ Ibid.

⁷² Government of the Regen District, Chamber of Internal Affairs, to Regensburg's magistrate, Regensburg, November 11, 1830, StadtA Rgbg. ZR-I 8107.

⁷³ Regensburg's magistrate to the government of the Regen District, Chamber of Internal Affairs, Regensburg, November 16, 1830, StadtA Rgbg. ZR-I 8107. As a reply to this argument the regional government pointed out that the magistrate had not accepted the offer of constructing a wood depot and therefore had to manage the wood supply of the poor on its own. See Government of the Regen District, Chamber of Internal Affairs, to Regensburg's magistrate, Regensburg, January 6, 1831, StadtA Rgbg. ZR-I 8107.

⁷⁴ Government of the Regen District, Chamber of Internal Affairs, to Regensburg's magistrate, Regensburg, September 7, 1837, StadtA Rgbg. ZR-I 8107.

⁷⁵ See the definition by Christoph Ernst, *Den Wald entwickeln. Ein Politik- und Konfliktfeld in Hunsrück und Eifel im 18. Jahrhundert* (Munich, 2000), 327.

⁷⁶ Suggestion (“Vorschlag”) of the district mayor Heinrich Wilhelm Sondermann to the city’s magistrate concerning the rise in wood prices, Regensburg, June 1, 1837, StadtA Rgbg. ZR-I 8107.

⁷⁷ Report of Regensburg’s magistrate to the government of the Regen District, Chamber of Internal Affairs, Regensburg, September 20, 1837, StadtA Rgbg. ZR-I 8107.

⁷⁸ Government of Oberpfalz-District, Chamber of Internal Affairs, to Regensburg’s magistrate, Regensburg, June 12, 1841, StadtA Rgbg. ZR-I 8107.

⁷⁹ Forstamt Neustadt to Regensburg’s magistrate, Geisenfeld, May 18, 1838; Forstamt Kelheim to Regensburg’s magistrate, Kelheim, June 12, 1838; Forstamt Burglengenfeld to Regensburg’s magistrate, November 23, 1838, StadtA Rgbg. ZR-I 8107.

⁸⁰ Karl-Heinz Preißer, *Wirtschaftliche Entwicklung einer Region. Die Oberpfalz im 19. Jahrhundert* (Weiden; Regensburg, 1999), 21–22. Preißer analyzes the economic development of the Upper Palatine Region during the nineteenth century, studying indicators like number, size and technological standard of factories, the structure of regional trade, productivity and supraregional competitiveness of local industries, demographic development, capital investment, etc. From his data he argues that in this region there was a “zurückbleibende Industrialisierung” in comparison with other regions and that in the first third of the nineteenth century there were unsuitable preconditions for an industrial “take-off.”

⁸¹ Edward L. Shorter, *Social Change and Social Policy in Bavaria 1800–1860* (Cambridge, MA, 1967), 807. Shorter documents for the same period indicate a population growth from approx. 63,000 to 127,385 inhabitants in Munich and from approx. 27,000 to 53,638 in Nuremberg.

⁸² Knoll, *Regensburg*, 51.

⁸³ Ibid.

⁸⁴ The role of the house of Thurn & Taxis, the owner of many of the forests formerly belonging to the bishopric, in the city’s wood supply needs further research.

⁸⁵ Report to the regional government of the Upper Palatine District, Chamber of Internal Affairs, Regensburg, January 12, 1838, StadtA Rgbg. ZR-I 8107.

⁸⁶ Piereth, *Mitten im Holze*, 141, 148.

⁸⁷ Report of Regensburg’s magistrate to the government of the Regen District, Chamber of Internal Affairs, Regensburg, September 20, 1837, StadtA Rgbg. ZR-I 8107.

⁸⁸ Suggestion of the district mayor Heinrich Wilhelm Sondermann to the city’s magistrate concerning the rise in wood prices, Regensburg, June 1, 1837, StadtA Rgbg. ZR-I 8107.

⁸⁹ Regensburg’s magistrate to the magistrates of Augsburg, Bamberg, Munich, Nuremberg, Passau and Würzburg, Regensburg, September 20, 1837; Regensburg’s magistrate to the magistrate of Mainz, Regensburg, December 8, 1837, StadtA Rgbg. ZR-I 8107.

⁹⁰ Eva Maria Hammer, “Die Holztrift und Flößerei auf dem Regen. Die Bedeutung des Holztransports auf dem Regen für die Entwicklung der nördlichen Vororte Regensburgs im 19. und frühen 20. Jahrhundert,” in *Donaus-Schiffahrt* 4 (1987): 82.

⁹¹ Ibid., 82–83.

⁹² Ibid., 87–91.

⁹³ Decision of Landgericht Donaustauf, February 4, 1804, HStA Munich Th. u. T. Abg. 1974 29/1–13.

⁹⁴ Kerstin Kellnberger, *Die Wirtschaftsentwicklung in Regensburg vom Industrialisierungszeitalter bis zum Ausbruch der Weltwirtschaftskrise 1929* (Dipl. thesis, University of Regensburg, 1992), 93–94.

⁹⁵ The example of the “Allgemeine Darstellung der Verhältnisse der Stadt Regensburg, deren Statuswesen 1803,” StA Amberg Fsm. Regensburg Geh. Kanzlei 254, describes this issue as a heavy economic burden for the city’s building authority.

⁹⁶ Piereth, *Mitten im Holze*, 148, note 32, documenting a report of Munich's magistrate from August 1837. For the role of industrialization—especially railways and coalmining—as factors in wood consumption, see Bernd-Stefan Grewe, "Das Ende der Nachhaltigkeit? Wald und Industrialisierung im 19. Jahrhundert," *Archiv für Sozialgeschichte* 43 (2003): 72–78.

⁹⁷ Grewe, "Ende der Nachhaltigkeit," 68–70, points out the economic importance of the forest economy for the states' finances in the early nineteenth century and the social conflicts caused by the expulsion of traditional users from the forests.

⁹⁸ Dirk van Laak discusses a tendency of growing interventionism on the part of the state and communes in nineteenth-century towns. He sees social policy and the development of infrastructure as two aspects of states' and communes' reactions to the problems caused by urbanization and industrial capitalism. See Dirk van Laak, "Der Begriff 'Infrastruktur' und was er vor seiner Erfindung besagte," *Archiv für Begriffsgeschichte* 41 (1999): 292–295.

⁹⁹ See William E. Rees, "Ecological Footprints and Appropriated Carrying Capacity: What Urban Economics Leaves Out," *Environment and Urbanization* 4 (1992): 121–130.

NATURE AS A SCARCE CONSUMER COMMODITY: VACATIONING IN COMMUNIST EAST GERMANY

Scott Moranda

In the summer of 1975, it would not have been at all surprising to see *Trabant* automobiles sighing under the weight of camping equipment and tumbling through the green hills of the Ore Mountains. Some of those vehicles would have finally nestled down next to the Greifenbach Reservoir, or Geyer Pond. More than likely, leather-clad young men and women from Zschopau on their motorcycles also rocketed up onto the fir-blanketed plateau surrounding the pond. On the reservoir's shores, an auto mechanic from Langebrück might have pitched a tent so he and his wife could enjoy the cool forest breezes. Not far away, a mining engineer from the nearby Wismut uranium mines might have whistled while repairing the windows of his bungalow on the north shore of the reservoir.

Lying between the villages of Ehrenfriedersdorf, Geyer and Thum, the twenty-three hectare reservoir was one of the most popular and most accessible recreation sites in the countryside south of Karl Marx City in the German Democratic Republic, or East Germany. Writing of the recreation area, one author and expert on the area's history asked: "On a lazy, sunny July day, what could be more beautiful and more rejuvenating (*erholssamer*) than lying in tall grass, folding an arm under your head, listening to the . . . murmuring and rustling of windblown treetops, and dreaming with open eyes?"¹ Colorful tents and recreational vehicles filled three meadows; in between, families played soccer or set up volleyball nets and, as another local author remarked, "everyone relaxes in his own way."² Even as some vacationers sought out the rustling of treetops, portable radios blasted music, sunbathers filled the meadows and concession stands hummed as campers bought snacks and drinks. Under the trees, vacationers parked their vehicles since two nearby parking lots would have already reached capacity early in the morning.

This paper introduces a unique, and perhaps surprising, aspect of East German environmental history. As campers and bungalow owners struggled to find space for themselves in idyllic landscapes, I argue, a strong sense of citizen and consumer rights in a social welfare state influenced how vacationers enjoyed and understood the nature experience. In overcrowded nature retreats, vacationers increasingly understood nature as a consumer commodity and as campgrounds became noisier and even more crowded, nature's commodity value only increased. The con-

struction of bungalows by an emerging social elite only made matters worse. On the one hand, the state promised the entire population good health and relaxation through pleasant vacations in natural settings; on the other hand, local representatives of the ruling Socialist Unity Party had few resources to regulate construction in landscape preserves and to prevent a small elite from overtaking public spaces. Vacation practices thus had real consequences for physical environments, but they also encouraged citizens to imagine nature as a commodity, one among many, denied to them under communism. As I argue in this paper, East German citizens hoping for better nature experiences understood environmental planning as a compliment (and not an obstacle) to acquiring better cars, washing machines and televisions.

Of course, there was nothing entirely new about socio-economic arguments for free access to natural areas in Germany. The socialist Friends of Nature in 1900 had demanded public access to mountains in Bavaria and elsewhere, and their justification often rested on their perceived entitlement to leisure opportunities previously exclusively available to wealthier citizens. In the case of Greifenbach Reservoir, local history and culture only reinforced this notion of nature as a consumer pleasure. Still, the East German quest for outdoor enjoyment was distinct in two ways. First, the lack of consumer goods that marked everyday life behind the Iron Curtain encouraged East Germans to think of nature as a scarce commodity primarily enjoyed by privileged citizens who had access to luxuries like bungalows and Western consumer goods. Second, the loss of public access to unpolluted natural areas appeared as a particularly grievous affront to the principles of social equality and the promises of a better quality of life celebrated by the socialist regime. In their vacationing, East Germans looked to nature for enrichment—spiritual, material and physical. I will thus organize this paper into three sections: an overview of historical meanings attached to the Greifenbach region, an analysis of changes to the landscape under the communist regime and finally an exploration of consumer complaints about overcrowding in the landscape preserve.

For a case study of an outdoor recreation area, Greifenbach Reservoir has many benefits. While distinct, the history of Greifenbach was not unique in the German Democratic Republic and therefore tells us something about broader trends in East German society. From the Baltic coast to the Thuringian forest, East Germans crowded into shabby campgrounds and built vacation cottages. In addition, the retreat's proximity to Karl Marx City made it similar to many other weekend retreats near Dresden, Leipzig or Berlin. As a case study, Greifenbach also offers the historian something not all vacation spots in the East can provide; the reservoir's development into a popular vacation destination was primar-

ily an East German story. While other vacation or leisure destinations had long been attracting masses of tourists, the forests of Geyer did not attract large crowds until after 1945 (smaller numbers of middle class tourists had visited the nearby Greifenstein rock formations earlier). Large crowds, such as those seen in the 1970s, only became possible with the increase in automobile ownership (albeit less impressive compared to the ownership of automobiles in West Germany) and the introduction of social welfare benefits.

Greifenbach also makes for a particularly rich case study because of the area's cultural and social history. Touched by both immense wealth and incredible poverty, the towns of Geyer and Ehrenfriedersdorf produced an abundance of folk legends and fairy tales that featured the problems of hunger, illness and social inequality. These cities, like so many in the mineral-rich Ore Mountains, or Erzgebirge, juxtaposed dense working-class communities with a wealth of nature restricted to a privileged few.³ While typical Erzgebirge workers often depended on the local forests and meadows to supplement their wages, local nobility had historically retained all hunting privileges. In later years, state foresters dictated how the poor could use forest resources. As vacationers at Greifenbach struggled to secure a campsite or a bungalow permit—in the name of health and happiness—they too sought greater access to nature's wealth. In the modern variant, however, security and happiness did not come with an unexpected gift of wild game felled by a poacher's bullet, but with a bungalow retreat or a campsite reservation.

What kind of nature did tourists find in the valley of Greifenbach? Once home to mixed beech-spruce-fir communities, local forests surrounding Greifenbach had already experienced radical changes long before the arrival of motor tourists. The surrounding Ore Mountains boasted one of the densest settlement patterns in all of Europe and one of the most complex geological formations in the world, famous for rich mines of silver, nickel, zinc and lead. Zinc had been extracted from the streambeds around Geyer since the thirteenth century. Later in the century, miners in Ehrenfriedersdorf flooded the moors at the head of Greifen Brook and built an aqueduct to provide water for intensive mining operations five kilometers away. The processing of ore recovered from those mines also demanded large quantities of firewood, since the complex ore had to be melted down before zinc could be extracted, and in the sixteenth century Saxony's first arsenic factory consumed half of local timber production and produced air pollution harmful to forest reserves. Long before the twentieth century, therefore, monotonous plots of scientifically managed fir and artificial water systems had replaced historic vegetation patterns and natural water flows.

Human exploitation of the surrounding Ore Mountains' natural wealth continued in the twentieth century, often with unfortunate results. During World War Two, the Nazis raised the Greifenbach Dam to increase the capacity of the lake, depending largely on Russian and French prisoners of war and other foreign slave labor to do the work. With the partition of Germany, the Soviets stumbled upon the richest known deposits of uranium outside of the United States and Canada—all just west of Chemnitz, soon to be renamed Karl Marx City. In the next decade, tens of thousands of workers arrived in the region to extract uranium for the Soviet military and by 1989 many of them suffered from cancer and other diseases. In the process, mines also left behind an array of toxic slag heaps and radioactive wastewater ponds.⁴ Along the nearby Czech border, whole forest ecosystems collapsed from sulfur dioxide poisoning as power plants in Czechoslovakia and the German Democratic Republic burned brown coal.

At a safe distance from dead forests and toxic mines, a beloved nature retreat nevertheless thrived on the shores of Greifenbach Reservoir. This landscape preserve enjoyed warmer temperatures and healthier air than many forest reserves at higher elevations to the south. Moreover, residents of polluted urban centers like Karl Marx City or nearby mining towns could quickly reach the relatively unspoiled plateau by automobile.⁵ Even if humans had radically altered the forested plateau, it still seemed more natural than adjacent territories. The proximity to ecological disaster only made the campground a scarcer and more cherished commodity. In other words, Greifenbach became a precious treasure in the midst of ugliness.

Stories of Carl Stülpner, a local folk hero similar to Robin Hood, further embellished Greifenbach's credentials as a nature retreat by linking the local forests to a hunter famous for his intimacy with the natural world. Moreover, Stülpner's legend connected Greifenbach with a struggle for economic rights and a campaign to share nature's products more equally—foreshadowing the conflicts over bungalows and campsites in the 1970s. Stülpner had briefly worked for the local forester at Ehrenfriedersdorf and he used caves near the Greifensteine as hideouts once he began his outlaw life as a poacher. By the 1930s, an Annaberg theater troupe staged plays based on local folk tales and the life of Carl Stülpner at a natural amphitheater adjacent to the Greifensteine. Thanks to the efforts of local intellectual Willy Hörning (author of an East German guidebook to the Greifensteine and Greifenbach), the Annaberg district theater brought back these productions in 1957.

Beginning in Stülpner's own lifetime, middle-class men and women celebrated the exploits of the skilled hunter. Stülpner's first biographers described him as an honest, yet uneducated boy who preferred to live

close to nature and suffered under the conventions of civilization. His story served as a critique of feudal social relations and the excesses of the nobility (especially in Christian Gottlob Wild's account of 1816), but biographers tended to soften the radical implications of illegal poaching by reminding readers that Stülpner had little education.⁶ Stülpner, in this account, was little more than a simple romanticized peasant—corrupt and uneducated, but at his core innocent, pure and intimate with *heile Natur*. Since poaching threatened rational progress and civil society, writers reintegrated Stülpner into acceptable society by framing the story as one of a boy taking care of his mother. In even more romantic versions, the unrequited love between Stülpner and the daughter of an honorable bourgeois villager tamed Stülpner's story further.⁷

At the same time, however, Stülpner personified a distinct populist notion of nature and its uses. Stülpner wandered the forests of the Erzgebirge and hunted wild game illegally in order to feed his poor mother and to provide for the hungry peasants mistreated by their feudal landlords. According to almost every folklorist, peasants celebrated Stülpner's poaching adventures because he protected their fields from the scavenging of an overabundant deer population reserved for noble hunting excursions. Stülpner, so the legend goes, firmly believed that nature could not be owned, that everyone should enjoy its fruits equally. Even as Stülpner protested ownership of nature's treasures, he described deer and other wildlife as commodities or gifts to be shared equally. In a historical fiction written by Hermann Heinz Wille for East German audiences and printed in eleven editions between 1956 and 1980, Stülpner declares, "It is so beautiful here! It is as if all the deer were made for me alone . . . The deer and all the other game are not made for the nobility; they are for everyone to share! Even us poor people should enjoy them."⁸

According to tourist guidebooks, the forests of Geyer and Ehrenfriedersdorf were also populated with many ghosts, who—much like Stülpner—brought nature's wealth to the impoverished families of the region.⁹ Fairy tales and ghost stories set in the forests around the Greifensteine also became regular features at the amphitheater. In fact, most ghost stories suggested that the good would triumph and hard work would be rewarded. In one story, a young man on his way to Bohemia found himself lost in the forests of Greifenstein when he encountered a small ghost. Inside a cave under the Greifensteine, the ghost guided him to a huge vault made of silver with tables of gold and chandeliers of precious stones. The spirit offered the lost traveler a meal from the priceless dining table, but the next morning he discovered the food magically replaced by gold pots and pans and precious stones. Other tales told of the treasures of the Greifensteine disguised as the countless needles falling from conifer trees. The needles would fall into the basket of a poor woman collect-

ing wood or some would cling to a forester's hat. When these lucky men and women returned home, they discovered that the needles had transformed into tiny chains of gold. In another story, a poor miner from Geyer with four children struggled to feed his family. On New Year's Eve his wife expected another child, so he rushed out into the snow to retrieve an experienced midwife from Günsdorf. Lost in high snowdrifts at the cliffs of the Greifensteine, a spirit offered to be a godfather to the triplets born that night. At the baptism, the ghost appeared in miner's clothes and gave the father gifts of a hammer and pickaxe. Whenever he dug with those tools, he would discover silver. A retreat to Greifenbach not only provided a nature experience, but that very nature—as suggested by these stories—also promised health, happiness and enrichment.

East German vacationers at Greifenbach may not have discovered precious metals, but they sought out treasures of a more abstract form; they hoped for rich nature experiences that might bring peace of mind and good health, and the well-known legends associated with the area only made the reservoir more attractive. The discussion of Carl Stülpner here is not meant to imply that disgruntled vacationers in East Germany explicitly referred to the famous poacher in their letters of complaint or other protests about the loss of recreation landscapes. Instead, the Stülpner story reveals some of the cultural meanings attached to the Greifenbach region; more importantly, its portrayal of scarcity gave this vacation area meaning unintended by East German authorities.

Official East German publications associated Stülpner and the natural world with resource exploitation, social revolution and rational scientific management—all of which stood in direct opposition to fantasies of personal wealth and comfort. As youth from Karl Marx City discovered the lake, for instance, the cultural programs promoted by the Free German Youth (East Germany's youth organization) directed young people toward enlightened activities that featured Carl Stülpner.¹⁰ For educators, the tale of Carl Stülpner illustrated several key lessons, such as the need to redistribute wealth, the value of the military experience and the importance of rational state management. Stülpner's tale also promoted a meritocratic ideal that the regime theoretically supported. By contrasting Stülpner with wild gangs of bandits, educators presented audiences with a disciplined young hero who wanted to be respectable and ply his trade, but only turned to poaching and rebellion in desperation. Publications also linked the popular folk hero to a communist interpretation of Germany's revolutionary heritage.¹¹ One expert on Stülpner, Klaus Hoffmann, portrayed the hunter as a product of the age of revolution.¹² Ultimately, he argued, "[Stülpner] may be understood as a pioneer for liberal views and social justice."¹³

Poaching, Hoffmann insisted, was not irrational exuberance or a source of wealth, but instead a progressive political statement. Rebellious peasants in 1790 thus exacted calculated revenge on the “plague” of wildlife flourishing under feudal laws that protected aristocratic hunting privileges.¹⁴ Hermann Heinz Wille, in a guide to the Erzgebirge’s landmarks, also emphasized the drastic consequences of feudal hunting laws. He wrote, “Today we can hardly imagine the wealth of game in the Erzgebirge at the time or the plague that it caused for farmers.”¹⁵ In other words, Wille and Hoffman suggested that nature, under feudal rule, fell out of balance, to the detriment of the poor and the powerless. Wille’s Stülpner concluded that not only could he hunt the local wildlife, but also that it was absolutely necessary. He reflected, “Tomorrow [this game] will devastate the peasants’ fields, chew away the bark of young saplings and nibble away their sprouts.”¹⁶ Unlike earlier biographers from the nineteenth century, Wille did not contrast Stülpner’s ignorance with the wise management of game by forestry experts. Rather, Wille presented foresters as mean-spirited and greedy and glorified Stülpner as an environmentally sensitive hunter who warned his battalion officers and later his bandit brethren against shooting wildlife out of season.¹⁷ Only socialism, Wille suggested, could do justice to Stülpner’s legacy, bring nature into balance and repair the damage done by feudalism and capitalism. Likewise, the educational activities and organized sport offered by youth leaders were meant to repair German society, that is, restore bodies and minds destroyed by capitalism.

These educational and athletic projects, in fact, did little to shape everyday life at the resort; life at the reservoir seemed to follow its own rhythm regardless of the intentions of youth leaders. Vacationers at Greifenbach sought personal enrichment, not balance and order. Like Stülpner, Greifenbach vacationers claimed the landscape as their own, to do with as they pleased. In the early 1960s, for example, one could find two sand pits at Greifenbach designed for long-jump competitions. Just a few years later, however, tourists discovered that these pits had been destroyed and in their ruins children happily built sand castles.¹⁸ Likewise, the choir in Zschopau complained that unapproved free time activities disturbed scheduled performances. Children played soccer next to the provisional stage, youths drowned out the performance with their portable radios and laughter and children tried to tease the choir leader.¹⁹

Recognizing the failures of cultural and athletic programs, local authorities merely acceded to vacationers’ demands for more comfortable leisure facilities. Zschopau authorities installed new water pumps and ordered bureaucrats to devote more attention to outfitting the emerging recreation district at Greifenbach.²⁰ In this spirit, officials requested at least 60,000 marks from Karl Marx City to fund the necessary construc-

tion projects.²¹ In 1961 the local government first invested in the construction of a beach to respond to consumer demand, but in 1963 tourists still complained to the local press about standing water. The lake had previously provided water to miners and villagers, who cared little about the lake's appearance, and, as a result, wetlands had dominated the lakeshore. As one vacationer described it, tourists needed rubber boots to manage the swampy conditions and without lawn furniture it remained impossible to sunbathe.²² The mayor of Ehrenfriedersdorf responded to complaints about marshy beaches by assuring readers of the upcoming development of a sandy beach and a grassy meadow for sunbathing, as well as the construction of toilets, kiosks and athletic facilities. The city hired a professional dredger to begin draining the land, and while the city portrayed development as a boon to the mining economy, its primary motivation appeared to be the expansion of beaches. Though a drought during the previous winter had inspired plans to expand the reservoir to secure more drinking water for the residents of Karl Marx City, concerns about vacationers at Greifenbach appeared to trump these plans to expand the lake. The government decided to delay plans for reservoir expansion until 1975 and allowed the construction of tourist facilities.²³

More precisely, vacationers overwhelmed the reservoir and its overseers. In 1968, a meadow for sunbathing and camping had still not been constructed.²⁴ By 1969, Zschopau still had not raised the funds (150,000 marks) to finish draining land around the lake.²⁵ On a beautiful day in 1969, so many visitors arrived at the lake that the parking lots filled before noon.²⁶ On another weekend when 5,000 campers and 12,000 day-trippers visited the lake, parking lots reached capacity before nine o'clock in the morning.²⁷ As the campground grew, cars threatened the tranquility of the lake as drivers parked in the woods, drove throughout the campgrounds at all hours and washed their vehicles on the lakeshore.²⁸ In response, planners constantly had to consider adding new parking lots near the lake; in fact, many requests for money from Karl Marx City emphasized the need to address traffic problems.²⁹ In general, the transformation of Greifenbach into a tourist destination did not keep up with demand. As a result, well-connected citizens who could acquire vacation cottages or purchase camping equipment fared better than workers who relied on public transportation and public facilities.

Even authorities managing the Greifenbach Reservoir soon realized that the development of the lake promoted social inequalities. In the late 1960s, seventy-four well-connected individuals or organizations had built bungalows around the lake without official permission.³⁰ Despite a ban on the structures, they appeared everywhere and once they were built little could be done to remove them.³¹ To address the problem of private bungalow construction, Zschopau authorities followed the lead of Ber-

lin's tourism planners and in January 1967 created a VEB Naherholung (a "people's own enterprise" responsible for managing the reservoir for regional recreation). The enterprise provided an institutional setting for addressing consumer demand. For example, members of the Campingbeirat (a camping council set up by the VEB Naherholung to let vacationers, bungalow owners and planners discuss planning for the park) demanded that unauthorized buildings be torn down because comfortable leisure in unspoiled nature had become a luxury accessible only to well-connected citizens.³² Campers with working-class backgrounds requested better landscape management to protect the park from bungalow owners who could afford to pay fines imposed by authorities.

Despite the best intentions of local authorities, the landscape remained part of a cash nexus. But who were those individuals in East German society that could afford to vacation in comfort? In part, "people's own enterprises" like industrial firms built bungalows for their employees; the state provided each firm "social and cultural funds" to compensate productive workers and employers thus had more money to develop recreational areas than communal or county officials in charge of Greifenbach. Private bungalow-owners at Greifenbach were artisans, white-collar employees, managers or skilled workers such as welders or electricians who had extra cash on hand. Considering the mining economy of the region, surprisingly few, if any, workers from the mining industry owned a bungalow. In fact, it appeared that not a single unskilled worker from heavy industry owned a cottage at Greifenbach Reservoir.

Social status and the availability of ready cash determined who built a bungalow. At least in this case, the privileged class did not consist of political functionaries in the ruling Socialist Unity Party.³³ Given the absence of private property and large income differences, social status often depended on political connections, the possession of tradable skills or resources or the good fortune of having wealthy relatives who could send gifts or cash from the West. Workers in luxury goods industries may have had more access to barter goods than average workers and thus had more purchasing power. In addition, many proprietors also engaged in professions that allowed them to trade services (carpentry skills, for instance) for favors, and artists and artisans may have been able to sell their goods in the West for cash. The complaints among East Germans that some citizens had privileged access to nature would appear to hold true; in leisure and tourism, the ruling Socialist Unity Party had not eradicated social differences.³⁴

More and more, frustrations with privileged access to "nature" framed expectations of the nature experience. Vacationers found themselves scrambling for more and better "nature experiences" at the ex-

pense of public space. In this way, interactions with the countryside became acquisitive and anything that interfered with opportunities to obtain “green space” became an aggravation and a source of broader discontent. It was this aggravation that led to criticism of fellow vacationers, industrial pollution and, ultimately, regime policy itself.

The practice of enjoying nature as a commodity, ironically, depended on unique East German conditions for its specific form. The German Democratic Republic was a small state with limited space and little opportunity to explore tourist destinations outside its borders. Without an abundance of consumer goods, East German citizens also suffered from a sense of “want” or “absence” even if they were by no means hungry or wanting of basic necessities. Worse still, the 1970s brought higher wages but not enough consumer goods on which to spend those wages.³⁵ With surplus income, citizens who could find material to build a bungalow could certainly afford to pay fines imposed by local authorities for illegal construction. Simultaneously, citizens of the GDR learned from the regime that “nature” was a resource to contribute to the advancement of the people’s welfare and that socialism would provide for a better quality of life, including, among other things, little luxuries like vacations from everyday routine.

Local officials could do little to stem the tide and authorities in charge of the lake caved in to pressure from an influential minority. In December 1966 authorities in Zschopau placed a ban on construction near the lake, but administrators on the Annaberg side of the lake ignored the new regulations.³⁶ Annaberg had already given verbal permission to seventy-nine individuals or firms to build bungalows and Zschopau had approved five more bungalows. Of these, construction had already begun on seventy-five.³⁷ At the end of 1967, authorities accepted the bungalows as a fait accomplis and integrated bungalow construction into the VEB Naherholung budget.³⁸ Permits would be given to firms that contributed money and labor to further development of the park;³⁹ in other words, financial pressures on leisure planners in Zschopau had clearly pushed them toward compromise with bungalow owners. A decision from Zschopau in December 1969, for instance, allowed the construction of six more bungalows for businesses with the following provision: “From now on firms are obliged to annually grant the VEB Naherholung material and financial assistance for the further development of the regional *Erholung* district on the shores of Greifenbach Reservoir.”⁴⁰

The construction of such bungalows, however, elicited numerous complaints and in their grumbling citizens especially criticized the private consumption of public space. In 1972, for instance, one citizen wrote to the Ministry for Environmental Protection to criticize construction along lakeshores (in this case, not at Greifenbach, but at a similar recre-

ation area). If not accessible to the public, he argued, "nature" (in this case, lakeshores and river banks) was "*umfunktioniert*," or changed. This individual identified accessibility to the public as a key characteristic of "nature." He wrote:

Directly on the lakeshores in the recreation districts stand various forms and sizes of weekend homes, which sometimes reach the size of fully functioning suburban homes (*Siedlungshäuser*) with garages. The landscape preserves that are themselves designated by local authorities do not remain spared. Even if the satisfaction of individual needs in this matter should not be ignored, one gains [through current policy] only maximum benefits for a few citizens.⁴¹

The writer hoped to open up the recreation district to all citizens and not just to the "privileged." This letter, it should be noted, criticized conspicuous consumption, but not consumption *per se*.

A group of campers at Greifenbach Reservoir also complained of conspicuous consumption that benefited a few privileged bungalow owners and not the community of vacationers as a whole. In one case, the VEB Naherholung told campers they would have to give up their campsite because overcrowding demanded that individuals not reserve campsites for years at a time.⁴² To justify the evictions, authorities claimed that they hoped to provide more vacation opportunities to the working class. In their responses to eviction, these campers not only attacked conspicuous consumption but also defended themselves as individual consumers of "nature." Pressing the regime to better satisfy their consumer demands, these citizens included green spaces in their list of desires.

One family from Karl Marx City, for instance, described at length their investment of money and time in their *Stabilzelt*, an especially sturdy tent that could remain at the reservoir throughout the camping season regardless of weather conditions. Campsites, they suggested, were rare commodities to be cherished and preserved since they were not easily acquired. Once in possession of one, the family held on to their "piece of nature" tenaciously and scoffed at suggestions from the VEB Naherholung that they easily could find another campsite elsewhere in the vicinity of Karl Marx City. Moreover, they feared that other "consumers" would not suffer as they might, since other campers who had used the camp-ground for over four years had not been given notices of eviction!⁴³

This camping family also suggested that, as consumers, they could still have an intimate relationship with the landscape. The reservoir had not always been suitable for tourists because of the swampy lakeshores, but when they received their campsite years before, the family became custodians of the land and was closely tied to its fate. "As you know," the head of the family wrote,

we contributed twenty hours of our own labor in order to improve the parcel to a proper condition [for camping]. Moreover, we leveled off recently drained land and sowed grass on the lakeshore. In addition, we divided blocks A and B into parcels, laid out gravel paths and set up boat ramps.⁴⁴

Another vacationer wrote:

Before the [lake] was ‘discovered,’ before even the masses had any idea that one could rejuvenate and relax there, our family belonged to those who had reconstructed the pond. In the beginning we camped on the grass fields, and when authorities finally took control, we adapted to the planned routine.⁴⁵

Because of the state’s limited financial resources and poor management, these campers became stewards of the land and felt a sense of pride. Hence, they took great offense at the state’s decision to evict them from what they considered their own “backyard.”⁴⁶ Eviction was a threat to a way of life or an identity they had created for themselves through their leisure and consumer practices.

Campers especially focused on the unequal treatment of some citizens. According to a resident of Karl Marx City, a great number of long-term campers (*Dauerzeltlern*) had not received eviction notices even though they too had resided at the campground the previous four summers. In his opinion, the GDR had been created to avoid such discrepancies between social groups. “I believe,” he wrote, “that it is not in the spirit of the Eighth Party Conference . . . to introduce such differences between campers, when we struggle daily against such petty bourgeois manifestations in other areas of life.”⁴⁷ Likewise, a resident of Wünschendorf complained that not all campers had been equally affected by the new rules. He also established in his letter a narrative of a respectable “worker” losing his right to consume and enjoy leisure. He wrote, “When one has worked day after day for eighteen years as I have, a person looks forward to when they can relax (*sich erholen*) after a work shift at a nearby campground.”⁴⁸

Other campers took a more aggressive approach to the matter and accused a certain “class” of citizens of receiving preferential treatment. “After closer inspection,” one angry camping enthusiast noted, “you have arranged special privileges for distinct groups within the population in the form of approval for their long-term campsites.” This vacationer believed the promises made by the regime to provide *Erholung* and health had been violated. “I must confirm,” he added, “that blue- and white-collar workers from collectivized firms [*volkseigene Betriebe*] . . . did not retain their permit for a campsite . . . What happened to the concerns about working people and the class consciousness of our socialist leaders?”⁴⁹ Campers such as these considered the lake and its surrounding

landscape to be an accessible space to be distributed evenly to all citizens. Nevertheless, they still wanted to secure their own personal plot.

While the authors of these complaints astutely quoted party rhetoric, they cared mostly about their own consumer needs. One vacationer explicitly linked her health, happiness and enjoyment of nature to a consumer identity. She wrote:

We do not earn our money so easily that we can make purchases and then simply leave a tent unused in a corner. Of course—and to this you should give some thought—there are no time limits for cottages at the lake. These [vacationers] may, regardless of how many years they were already there or how long they want to remain, pursue their leisure. It is, as always, the little man who only has a tent that is easiest to drive away. We recognize that others need a possibility for recreation—but not at the cost of others. The grounds [at the lake] are big enough; they only need to be developed.⁵⁰

This vacationer not only criticized the inequalities of East German society, but she also revealed a distinct attitude toward nature. She criticized an elite and merely wanted to extend the ideal nature experience (currently available to bungalow owners) to all citizens and, to this end, she demanded better management by authorities. The complaints cited here, furthermore, were not isolated cases. The Ministry for Environmental Protection noticed a trend in letters of complaint in 1977 toward a critique of the development and parceling of public land.⁵¹

Vacationers encountered plenty of evidence that some individuals—political elites, artisans, the well connected or those with hard currency from relatives in the West—enjoyed cleaner, quieter and materially more comfortable nature experiences. The countryside, which brought together relaxation, fresh air and greenery to create an escape from the dirty, hectic and politicized daily life of East German cities, had become a commodity to be consumed. Instead of an environment, or *Umwelt*, closely interconnected with human behavior, “nature” became *primarily* a commodity—a combination of sights, sounds and smells that, if properly experienced, contributed to good health, relaxation and contentment. On the one hand, this meant that East Germans could develop a critique of the government’s failure to prevent the parceling of the recreation district into cluttered colonies of vacation homes. On the other hand, it was very difficult to separate the fate of nature from individual consumer satisfaction. As a result, criticism of the regime’s social and environmental policies often amounted to little more than a demand for the satisfaction of individual desires.

It could be argued that many of the complaints cited in this paper reflect anger with consumption and not a defense of consumer rights. Certainly, many people grumbled about the conspicuous consumption of

a special class of citizens and some committed nature lovers probably did condemn consumption in any form. Yet at least as many, if not more, citizens approached nature in the same way as the campers at Greifenbach Reservoir. Those East Germans who had an opportunity to secure their access to a “nature experience” did not waste it. Laws and regulations mattered little if an individual had the connections or the cash to reserve a plot of land and create their own little retreat in the countryside. While some conservation-minded professionals despaired about damage to natural beauty, many vacationers just wanted to secure their piece of nature—to ensure themselves of the enjoyment of *Erholung*, clean air and green vistas at least once a year, if not over several weekends. Rarely was there a fundamental critique of consumption and its effect on the popular “nature experience.” Like Carl Stülpner, vacationers in the Ore Mountains sought enrichment in nature; moreover, they complained of citizens who took those riches out of public circulation, just as Stülpner criticized nobles restricting access to wild game. Also like Stülpner, they believed that the resources of nature were there for the taking—not to be sequestered away and preserved from human consumption in a nature preserve. If shared more equally, they suggested, nature flourished in balance with human needs. The state, citizens suggested, had to impose limits on conspicuous consumption to preserve some open space to satisfy their consumer desires.

Vacationing, in sum, had profound consequences for the appearance of physical environments in the German Democratic Republic, not only at Greifenbach, but also in the Elbe Sandstone Range and along the Baltic Sea. As overdevelopment began to degrade cherished “nature experiences,” citizens began to complain to newspapers, local authorities and the Ministry for Environmental Protection. Their protests, however, rarely expressed a committed rejection of bungalow construction or consumerism as a threat to ideal nature. Distinct from the Friends of Nature early in the twentieth century, East German vacationers employed a consumer rhetoric shaped by the promises of better living standards made by the ruling regime, and they hoped to acquire nature experiences just as they longed for the better cars, exotic fruit and modern televisions common to West Germany.

Notes

¹ Heinrich Heinz Wille, *Silbernes Erzgebirge* (Dresden, 1958), 45–46.

² Manfred Blechschmidt and Klaus Walther, *Bergland Mosaik: Ein Buch vom Erzgebirge* (Rudolstadt, 1978).

³ Unlike many other regions in Germany, relatively few peasants worked the land in the Erzgebirge region.

⁴ Rainer Karlsch and Zbynek Zeman, *Urangeheimnisse: Das Erzgebirge im Brennpunkt der Weltpolitik, 1933–1960* (Berlin, 2002); Paul Reimar, *Das Wismut Erbe: Geschichte und Folgen des Uranbergbaus in Thüringen und Sachsen* (Göttingen, 1991); Ralf Engeln, *Uranskklaven oder Sonnensucher? Die Sowjetische AG Wismut in der SBZ/DDR 1946–1953* (Essen, 2001); Michael Beleites, *Pechblende: Der Uranbergbau in der DDR und seine Folgen* (Wittenberg, 1988); Michael Beleites, *Altlast Wismut: Ausnahmezustand, Umweltkatastrophe und das Sanierungsproblem im deutschen Uranbergbau* (Frankfurt/Main, 1992).

⁵ Akademie der Wissenschaften der DDR, *Atlas-DDR* (Gotha, 1976).

⁶ Nevertheless, Carl Heinrich Wilhelm Schönberg faced censorship for publishing a text that appeared to glorify banditry. At least, this is what Klaus Hoffman argues in his epilogue to Schönberg's text. Klaus Hoffman, "Nachwort," in Carl Heinrich Wilhelm Schönberg, *Carl Stülpners merkwürdiges Leben und Abenteuer als Wildschütz im sächsischen Hochgebirge* (1832; Leipzig, 1982) 137.

⁷ Friedrich von Sydow, *Der Wildschütz Carl Stülpner* (Sonderhausen, 1832).

⁸ Hermann Heinz Wille, *Der grüne Rebell: historischer Roman um den Freijäger Karl Stülpner*, 12th ed. (Berlin, 1983), 30.

⁹ According to guidebooks to the region, the miners encountered many strange spirits on their nightly patrols of the aqueduct between Greifenbach and Ehrenfriedersdorf. For examples of guidebooks to the region, see Willy Hoerning, *Greifensteingebiet: Thum, Ehrenfriedersdorf, Geyer*, Brockhaus Wanderheft, Heft 132 (Leipzig, 1961, 1970); Hermann Heinz Wille, *Vom Kahleberg zum Fichtelberg: Wanderfahrt durchs Erzgebirge* (Leipzig, 1971); Manfred Blechschmidt and Klaus Walther, *Bergland Mosaik: Ein Buch vom Erzgebirge* (Rudolstadt, 1978).

¹⁰ Kreisarchiv Marienberg-Zschopau, Rat der Kreise Zschopau (hereafter KMZ-RdKZ), Signatur (hereafter Sig.) 6117, Author – Rat der Kreise Zschopau, Abteilung Jugend, Körperfunktion und Sport, no title, speech detailing the history and development of the reservoir, 2.

¹¹ Hoffmann, *Carl Stülpners merkwürdiges Leben*, 129.

¹² Ibid., 131.

¹³ Ibid., 132.

¹⁴ Ibid., 130.

¹⁵ Wille, *Der grüne Rebell*, 50.

¹⁶ Ibid., 63.

¹⁷ Ibid., 83, 145–6.

¹⁸ Ibid.

¹⁹ KMZ-RdKZ, Sig. 6117, February 3, 1970, Abschrift von Folkschor Streckewalde, Kreis Zschopau, to Kreiskabinett für Kulturarbeit beim Rat der Kreise Zschopau, "Betr: Urlauberbetreuung Naherholungszentrum Greifensteingebiet" Signed Kurt Pohlung, Chorleiter; Herbert Wetzel, Organisationsleiter.

²⁰ KMZ-RdKZ, Sig. 7073, Letter from Rat der Kreise (hereafter RdK) Zschopau, Stellv. der Vorsitzender to Abteilung Handel und Versorgung, Rat der Kreise Zschopau, April 17, 1961; also a letter of the same date from Baumann of the Rat der Kreise Zschopau to the National Front in Karl Marx City in response to their letter of March 29, 1961, complaining about conditions at the campsite.

²¹ KMZ-RdKZ, Sig. 7073, Letter from Repmann, RdK Zschopau to Rat des Bezirkes Karl Marx Stadt, Genossen Felfe, Vorsitzenden, July 21, 1961.

²² "Ob das so bleiben soll?" *Neue Zschopauer Zeitung*, July 18, 1963.

²³ KMZ-RdKZ, Sig. 7073, Letter from Bürgermeister of Ehrenfriedersdorf to the *Neue Zschopauer Zeitung*, "Betr: Campingplatz am Greifenbach Stauweiher, Kritik in der Ausgabe Nr. 29 vom 18.7.1963," July 18, 1963. Also, Sig. 7073, June 14, 1966, Letter to Kreisinspektion Zschopau, From Repmann, Vorsitzer des RdK – "Bericht vom 3/24/1966 über die Kontrolle

der Verwirklichung der Direktive zur Einführung der 5 Tage Arbeitswoche im Naherholungszentrum Greifensteine."

²⁴ KMZ-RdKZ, Sig. 7073, April 21, 1965, "Niederschrift aus einer Beratung von Vertretern des Rates der Stadt Ehrenfriedersdorf und der Stadt Geyer, betrefts Campingplatz Greifenzbachstauweiher," 1; also Sig. 7074, November 26, 1968, Letter from VEB Naherholung Ehrenfriedersdorf to the RdK, Abteilung Jugendfragen, Körperkultur und Sport, Betr: Bericht über die Auswertung der diesjährigen Saison.

²⁵ KMZ-RdKZ, Sig. 6117, RdK Zschopau, Abteilung Jugend, Körperkultur und Sport, Speech, 11, 16.

²⁶ KMZ-RdKZ, Sig. 7073, Abteilung Erholungswesen, August 5, 1969.

²⁷ KMZ-RdKZ, Sig. 6117, August 6, 1969, Entwurf, Letter from Bauman, RdK Zschopau, to Rat des Bezirkes, Abteilung Jugend, Körperkultur und Sport, Betr: Situation im Naherholungszentrum Greifenzbachstauweiher/Greifensteine Ehrenfriedersdorf, 2–3.

²⁸ KMZ-RdKZ, Sig. 7073, September 7, 1966, Niederschrift über eine Beratung des Campingbeirates am Mittwoch, dem 7.9.1966; Sig. 7074, November 26, 1968, Letter from VEB Naherholung to Rat der Kreise Zschopau, Abteilung Jugend, Körperkultur und Sport; Sig. 7073, September 12, 1968, Niederschrift über die durchgeführte Beratung am 16.8.1968.

²⁹ KMZ-RdKZ, Sig. 7073, July 26, 1966, Letter from RdK Zschopau to Rat des Bezirkes Karl Marx Stadt, Abteilung Jugendfragen, Körperkultur und Sport. Plans still to be considered in 1971; also Sig. 6093, September 24, 1971, VEB Naherholung, Vorschlag des VEB Naherholung Ehrenfriedersdorf zum 5 Jahr Plan.

³⁰ KMZ-RdKZ, Sig. 6117, Abteilung Jugend, Körperkultur und Sport, Speech, p. 5.

³¹ KMZ-RdKZ, Sig. 7073, Niederschrift über eine Beratung des Campingbeirates am Mittwoch, dem 7.9.1966.

³² Ibid., 3.

³³ At this time, unfortunately, I have no record of the party affiliation of these individuals.

³⁴ KMZ-RdKZ, Sig. 6117, "Zusammenstellung der Bewerber für Wochenendhäuser am Geyer'schen Teich auf der Grundlage der Standortbesichtigung vom 25.6.1967."

³⁵ See Jonathan Zatlin, "The Vehicle of Desire: The Trabant, the Wartburg, and the End of the GDR," *German History* 14, no. 3 (1997): 358–380.

³⁶ KMZ-RdKZ, Sig. 6093, August 8, 1967, RdK Zschopau, Abteilung Jugendfragen, Körperkultur und Sport, Vorschlag zum Perspektivplan Naherholung bis 1970.

³⁷ KMZ-RdKZ, Sig. 6117, April 12, 1969, Abteilung Jugendfragen, Körperkultur und Sport, Vorlage für die Sitzung des Rates der Kreise am 11.12.1969, Betr: Bungalows.

³⁸ KMZ-RdKZ, Sig. 6117, Städtebauliche Bestätigung, Form für Errichtung eines Wochenendhauses am Greifenzbachstauweiher in Geyer.

³⁹ KMZ-RdKZ, Sig. 7074, December 18, 1967, VEB Naherholung, Niederschrift über die konstituierende Sitzung des Beirates für Naherholung am 14.12.1967.

⁴⁰ KMZ-RdKZ, Sig. 7074, February 28, 1969, Abteilung Jugendfragen, Körperkultur und Sport, Konzeption für die Beratung am 1.3.1969 mit Bungalowbesitzer; Sig. 6117, December 4, 1969, Abteilung Jugendfragen, Körperkultur und Sport, Vorlage für die Sitzung des Rates der Kreise am 11.12.1969, Betr: Bungalows.

⁴¹ Bundesarchiv-Berlin-Lichterfelde (hereafter BArch), DK5 Sig. 4393, August 1, 1972, Letter from Karl Dutschmann to Ministry for Environmental Protection.

⁴² In response to numerous complaints, however, officials eventually reversed course and gave permits to campers for at least another year.

⁴³ KMZ-RdKZ, Sig. 6117, Eingaben, February 14, 1973, Letter from Horst Anders to VEB Naherholung.

⁴⁴ Ibid.

⁴⁵ KMZ-RdKZ, Sig. 6117, Eingaben, February 18, 1973, Letter from Marta Tausch-Marton to VEB Naherholung.

⁴⁶ KMZ-RdKZ, Sig. 6117, Eingaben, February 22, 1973, Letter from Guenter Seifert and Joachim Seifert to Kollege Mann, VEB Naherholung.

⁴⁷ KMZ-RdKZ, Sig. 6117, February 18, 1973, Letter from Heinz Peters to Herr Mann, VEB Naherholung.

⁴⁸ KMZ-RdKZ, Sig. 6117, February 16, 1973, Letter from Kurt Schubert of Wünschendorf to VEB Naherholung.

⁴⁹ KMZ-RdKZ, Sig. 6117, February 14, 1973, Letter from Horst Anders of Karl Marx City to VEB Naherholung.

⁵⁰ KMZ-RdKZ, Sig. 6117, February 18, 1973, Letter from Marta Tausch-Marton to VEB Naherholung.

⁵¹ Barch, DK5 Sig. 71, Abteilung Umweltschutz, Eingabenanalyse 2. Halbjahr 1977, 2.

GERMAN COLONIALISM AND THE BEGINNINGS OF INTERNATIONAL WILDLIFE PRESERVATION IN AFRICA

Bernhard Gißibl

On November 24, 1906, the British weekly *Saturday Review* published an anonymous letter to the editor entitled “The Dying Fauna of an Empire.” Its obviously British author lavished praise on the former Imperial Governor of German East Africa, Hermann von Wissmann, for his far-sighted measures to save African wildlife from extinction. According to the anonymous writer, the German Governor’s enduring legacy was the idea that, if the great game was to be economized, sanctuaries or reserves must be established. He accordingly set apart two great districts of German East Africa in which game was protected absolutely. This seems to have been the first really effective step towards sparing the fauna of Africa. The English authorities saw great obstacles against the establishment of such sanctuaries in our own territory, but happily we have followed the German example.¹

Not unusual for the time it was written, the main thrust of the article was a rather nationalist appeal to Britain’s imperial honor, in this case to grant due protection to the fauna of the empire. Africa’s wildlife was framed as imperial heritage and its preservation invoked for the sake of posterity. Still, the author’s main argument for the conservation of Africa’s mammalian fauna was its economic value as “game.”² But the most interesting point the author makes is the way in which this objective was to be achieved. Apparently it could not be attained without cooperation, or at least learning and borrowing from others. Particularly in the formative years of German and British colonialism, the exchange of information and concepts was intense. In the above-mentioned case, the concept of reserving space for wildlife and wilderness had been transferred across the globe from its origins in America. It reached the British colonies in East Africa via the neighboring German colony. East Africa had featured some of the richest and most diverse fauna of the whole continent, but in the 1890s travelers, hunters and the authorities of the East African colonies, both British and German, found animal populations to be severely wanting. A controversial debate over the reasons for this decline followed. In reaction, British and German authorities took similar actions and made matters of wildlife conservation in Africa an issue of international debate in the imperial metropoles.

The processes of transfer and exchange in the early stages of African conservation deserve special emphasis, as the story of African wildlife

protection has so far mainly been told from a British perspective.³ This paper uses the example of German colonialism in East Africa as a vantage point from which to trace the entangled imperial beginnings of international wildlife conservation in Africa. It will concentrate on the early years, from the beginning of German colonization on the continent to the International Conference on Wildlife Preservation in Africa held in London in 1900. Throughout this period, the primary proponents of environmental internationalism were imperial hunters, naturalists, colonial authorities and governmental institutions.⁴ The first part of the article discusses the origins of conservationist concern and the first steps taken from 1890 onwards; part II focuses on the German East African Game Ordinance of 1896 and its repercussions in the British Empire, while the following parts examine the preparation (III) and the proceedings (IV) of the first International Conference on the Preservation of Wild Animals, Birds and Fish in Africa in 1900. The conference assembled representatives from all European colonial powers in Africa and agreed upon a convention that claimed imperial stewardship over African nature and asserted that wildlife preservation was part of Europe's civilizing mission on the continent. The convention bore a strong Anglo-German imprint and established key concepts of preservation that were to dominate African conservation throughout the twentieth century. A result of imperial environmentalism, the convention epitomizes environmental imperialism and initiated the gradual exclusion of Africans from access to the wildlife resources of their continent. Thus, although its resolutions were never ratified, the conference represents a significant landmark in the early history of preservation.

I

From the start of European colonial rule in East Africa in the 1880s, conservationist concern focused mainly on elephants. The flourishing East African ivory trade had incorporated sub-Saharan Africa into the political and economic globalization that took place in the second half of the nineteenth century.⁵ Ivory was the most important export commodity of the region and both its value and trade had been steadily increasing in the decades before the European scramble for Africa. The power of ivory stabilized or destabilized local chiefs and "big men," secured political influence and allegiances and instigated bartering and new demands for goods and commodities by African societies, even beyond the established trading routes. Elephant hunting and ivory shaped the livelihoods of African chiefs, Arab and Swahili traders and middlemen, professional ivory hunters of African and European origin and also slaves; on the coast, rival Indian merchants and trading companies from Europe and America provided the capital to furnish caravans to exchange clothes,

beads, wire, guns and powder for ivory in the interior. However, ivory was a commodity that could only be procured at the expense of elephants. Not surprisingly, therefore, elephant hunting became a vital factor for the social, political and cultural life of the African societies that practiced it. The use of guns in elephant hunting was widespread and in the 1880s about 100,000 firearms a year were imported into East Africa.⁶ Although the figures are hardly reliable, in the early 1880s German and British sources estimated that some 65,000 elephants were shot throughout Africa annually.⁷ European voices complaining about the degradation of elephant populations were numerous and the Acting Commissioner of the British Central Africa Protectorate, Alfred Sharpe, was echoing the earlier concerns of explorers like Joseph Thomson or Georg Schweinfurth when he asserted that "throughout tropical Africa" elephants were "being gradually exterminated."⁸

However, the German colonial administration initially had neither the inclination nor the necessary means to interfere too heavily in African elephant hunting, as ivory remained the colonies' foremost source of revenue until the turn of the century.⁹ Therefore, the control of indigenous elephant hunting by the few and desperately understaffed government stations was a gradual and protracted process. European hunters entering the colony via the coastal ports appeared easier to regulate. Hunting had already been an essential part and pastime of the sporadic European expeditions in East Africa since the middle of the nineteenth century. With the advent of colonial rule, the number of white hunters increased significantly.¹⁰ In particular, the promise of bountiful game lured the globetrotting members of a wealthy international aristocratic and bourgeois hunting elite to Africa. They brought with them not only the latest technological achievements in precision rifles, but also the destructive record of European expansion and white settlement, a record that included the near extinction of the North American bison as well as the game-exhausted velds of South Africa. During the 1880s, the frontier for white hunters shifted from South to East Africa, thereby "opening up" vast new territories for enthusiastic white hunters.¹¹ Although there was frequent unrest between rival groups in the districts around Kilimanjaro until the turn of the century,¹² a German military officer nonetheless reported that "English, American and Russian shooting expeditions" were "relentlessly hunting for sport" as early as April 1890.¹³ These hunting parties not only caused considerable damage to elephant populations, but were in many cases also involved in conflicts with and among the resident population of the areas they chose as their hunting grounds. Usually, these private expeditions traveled under the flag of the hunter's country of origin, thus blurring the distinction between the columns of "official" colonization and conquest and private travel. Hence, authorities

on both sides saw themselves forced to intervene.¹⁴ In autumn 1890 the East African coast was declared closed to sportsmen and the first imperial governor of German East Africa, Julius von Soden, tried to prevent all attempts at large-scale hunting by controlling and occasionally forbidding European hunting parties, as well as those African or Zanzibari caravans setting out from the coast with the sole purpose of hunting.¹⁵ In the district of Moshi near Kilimanjaro, a licensing system operated for professional elephant hunters, charging an annual fee of 500 rupees or the return of an equivalent amount of tusks for the permission to hunt.¹⁶ In an effort to check "the destruction of the large game of the country, as also of preventing collisions with native tribes on the part of irresponsible adventurers," the British Imperial East Africa Company likewise curbed the unrestrained pursuit of game by forcing all sporting expeditions to apply for a permit at the head office in London.¹⁷ The company also introduced hunting licenses that were obtainable from the administration in Mombasa or local superintendents. No restrictions, however, were placed on hunting by officials of the company, which counted some of the most infamous and rapacious white elephant hunters among its ranks.¹⁸ In German East Africa as well, military and administrative personnel enjoyed unrestricted hunting, as did scientific expeditions. In May 1895, for example, Fritz Bronsart von Schellendorf, a former member of the German *Schutztruppe* and himself a prolific hunter, sent alarming reports of the slaughter of 60 zebras by the ornithologist Oskar Neumann, who collected specimens for the Natural History Museum in Berlin. In his letter to the Colonial Department in Berlin, he predicted the near extinction of several species and pushed for a lease system for hunting similar to the one in Germany. His propositions were passed on to Wissmann, who had just taken over as the governor of East Africa.¹⁹

II

Reports like Bronsart's were only one of several reasons why Wissmann displayed more concern for matters of wildlife preservation than his predecessors. Not only was he an ardent hunter himself, but he could also draw upon his rich experience as an African explorer, having crossed the continent from west to east in the 1880s.²⁰ During his travels in the Congo, he claimed to have "too often seen how every European who possesses a gun . . . fires in the most reckless fashion . . . without having any regard as to whether or not he can possess himself of the animal when killed."²¹ He witnessed the same wanton destruction of game by his own administrative and military staff, whose "unsportsmanlike shooting" (*unweidmännische Aas-Jägerei*)²² decimated game populations



East Africa, 1905

and, even worse, defied the German hunting ethos Wissmann held so dear. The overall impression of a decline in wildlife numbers was further exacerbated by the ecological crisis of the early and mid 1890s, a series of man-made and natural catastrophes that in many areas led to the collapse of regional economic and ecological systems. Wissmann witnessed some of this devastation while engaged in ruthless campaigns to restore German authority around Kilimanjaro in 1891. The north of German East Africa, in particular, was struck, consecutively, by a rinderpest pandemic, droughts and locusts, which culminated in crop failure and famine. Approximately 90 percent of the region's cattle died as a result of the pandemic, which also severely reduced the populations of ungulates such as buffalo, zebra and several species of antelope. Pastoral societies that depended on cattle, such as the Maasai, were particularly hard hit. Many of them turned to cattle theft and hunting to survive, which in turn in-

creased European perceptions of social and ecological turmoil that seemed to require and justify military and administrative intervention.²³

However, the immediate impetus for Wissmann to take active measures and push for international agreements seems to have come from an article in the *Gazette for Zanzibar and East Africa* published on September 25, 1895. The author, referring to a correspondent in Mombasa, likened the devastation of big game in Africa by "the rifle-bearing hunter, professional and amateur," to the destruction of the herds of bison on the American Plains. As there was "ample evidence" that East African game was "going the way of that in America," the author advocated the confiscation of ivory below a certain weight and the establishment of "great plain and forest reserves" as wildlife breeding grounds rather than merely relying on a licensing system for control.²⁴ Wissmann read the article closely and discussed the implementation of its suggested provisions in a letter to Berlin in October 1895. However, his scepticism with respect to the possibility of setting up reserves led him strongly to favor the banning of trade in immature ivory below a certain weight. With this in mind, he asked the Foreign Office in Berlin to approach the governments of France, Britain, Portugal and the Congo Free State in order to negotiate an international agreement for the protection of elephants.²⁵ A few months later, however, Wissmann had apparently changed his mind on game reserves, and he asked the Colonial Department for permission to "turn some of the game rich areas of German East Africa into a national park."²⁶ Since the establishment of Yellowstone in 1872, the idea of setting aside space to preserve wilderness as national heritage had been received by conservationists in all parts of the world.²⁷ Its subsequent implementation in different political, social, natural and ecological contexts often entailed significant modifications to the US-American model. The German East African version, as proposed by Wissmann, combined the American idea of preserving wilderness with the model of the German hunting estate. On the one hand, all hunting was to be forbidden in the reserves, which were to be owned and managed by the government, in order to create ideal breeding conditions for wildlife. On the other hand, Wissmann was content to give the governor discretion over whether or not German hunters should be allowed to hunt in the reserves. Set in a beautiful and "uninhabited" landscape, these "small paradeses"²⁸ should thus convey to the visiting hunter the idealized picture of German Africa as an untamed wilderness. Roderick Nash has argued that the American national park represented the royal forest of medieval Europe in its democratic form, with the sovereign now being the nation.²⁹ In a way, then, the German East African adaptation took the idea back to its European roots. This is clearly reflected in a later memorandum from Wissmann which proposed that the animals in the reserves be declared

“imperial game” (*kaiserliches Wild*), thereby suggesting that the reserves were comparable to the German Emperor’s hunting estates in Rominten and Schorfheide.³⁰

In May 1896 Wissmann put his ideas into practice with an ordinance that bore a strong imprint of German hunting traditions.³¹ While district and military commissioners were asked to suggest further areas suitable for game sanctuaries, two reserves were established immediately, one in the south along the Rufiji River, the other in the area west of Kilimanjaro. The regulations contained no special provisions for the enforcement of the ban in the reserves, but apparently Wissmann envisioned “that the nearest stations to the reserves would be charged with the carrying out of his Game Regulations” and, if “the first few offenders [were] duly punished, it will be quite possible to ensure a considerable amount of respect for the game reserves.”³² All hunters, European and indigenous, were required to take out a game license in advance, prices being 5 rupees for indigenous hunters, 20 rupees for Europeans and 500 rupees for participants in hunting expeditions and professional elephant or rhinoceros hunters. To further the development of agriculture and plantations, the ordinance introduced a distinction between vermin on the one hand and useful animals or those worthy of protection on the other. Whereas it was permitted to kill all preying cats, apes, pigs and most birds without a license, each elephant or rhinoceros shot cost an additional fee. By declaring hunting techniques like the use of fire and nets and the driving of game illegal unless special permission was obtained from the government, the ordinance also made an attempt to exclude those indigenous hunting practices that conflicted with German—and European—hunting codes. Another transfer of German *Weidgerechtigkeit*³³ to tropical East Africa was a ban on hunting females and foals of all animals, with the exception of vermin and those animals where the females were hardly distinguishable from the males. The shooting of young elephants with tusks below three kilograms in weight was strictly forbidden.

Given the very limited extent of actual control Germans exerted over most parts of their claimed territory in 1896, the effort to introduce aspects of the German hunting ethos to Africa appeared futile. Putting them into practice proved difficult in many ways; visiting sportsmen, for example, could recognize big game such as elephants, lions, rhinoceroses, buffaloes and giraffes, but could hardly distinguish between the several species of antelope, not to mention between the sexes. Hence the game ordinance was severely criticized, largely by visiting hunters. Max Schoeller, for instance, who undertook a hunting expedition through German East Africa in 1896, complained that the high fees merely penalized European hunters, whereas Africans, whom Schoeller believed to be the true culprits in the game slaughter, could not be made to obey the provisions

anyway.³⁴ Barely two years later, Wissmann's successor, Eduard von Liebert, suspended most provisions of the 1896 ordinance, feeling that too little was known about wildlife biology to introduce effective measures. The new ordinance allowed, amongst other things, the shooting of females and foals, and some district stations were even encouraged to handle elephant hunting, both by Africans and Europeans, in such a way as to divert more of the ivory trade revenue into the government's purse.³⁵

Despite being short-lived and of limited practical value, the German ordinance of 1896 nonetheless influenced future efforts at wildlife preservation. Itself an amalgam of different traditions, Wissmann's Game Regulations introduced the idea of the reserve in East Africa and engendered widespread discussion in the neighboring British colonies and even the British possessions in India. Moreover, it ushered in a period of intense Anglo-German cooperation leading up to the International Conference on the Preservation of Wild Animals convened in London in April 1900.

When the translation of Wissmann's game ordinance arrived at the British Foreign Office at the end of June 1896, the discussion about bringing the "excessive destruction . . . of the larger wild animals" in Africa to a halt was already well under way. A few weeks before, the British Prime Minister and Foreign Secretary had recommended a series of measures—including the introduction of a closed season, reserved districts and a limitation on the number of game to be shot—to the commissioners in British East Africa and Uganda, demanding some kind of legislation on the matter.³⁶ Already John MacKenzie has observed the "curious fact" that the British South African tradition of game legislation had not been tapped by the Department for the African Protectorates in the British Foreign Office as a source for measures in East Africa.³⁷ This knowledge would have been available at the Colonial Office, which, among other issues, dealt with matters concerning South Africa. Apparently, the institutional distinction between the Colonial Office, Foreign Office and India Office handicapped the transfer of information within the Empire. In this case, only the arrival of the German Ordinance instigated exchange between the different departments. In the following months, experts in India, South Africa and the British East and Central African possessions were asked to comment on the German regulations and especially on the practicability of wildlife reserves.³⁸ A flood of correspondence followed. The British Foreign Office accumulated all available knowledge on game preservation, including the game laws from Zululand, Natal, Bechuanaland and the Cape Colony, and several memoranda from forest conservators as well as the Forest Regulations of British India,

which incorporated the wildlife preservation measures there. Authorities in densely populated areas, such as the South African settler colonies, expressed their scepticism about reserves and remained doubtful about the possibility of patrolling them. Existing regulations in South Africa therefore mainly relied on licenses and closed seasons.³⁹ A commentator from India greeted the sanctuaries as “the only proper and rational course to pursue if the interesting fauna . . . is to be preserved from eventual extinction.”⁴⁰ Between 1896 and 1899 all British colonies bordering German East Africa established sanctuaries, sometimes hesitantly.⁴¹ To co-ordinate conservationist efforts, the British authorities agreed to make their hunting regulations match those of German East Africa, but with one important difference. While Wissmann’s successor, Liebert, denied foreign sporting expeditions access to the hunting grounds in the interior of German East Africa,⁴² his British counterpart, Commissioner Sir Arthur Hardinge, advocated the following principle:

Keep as close as possible to the German Regulations, but make our own slightly more favorable to wealthy sportsmen who bring money into the territory and who, so long as their destruction of its game can be kept . . . within safe limits, should be encouraged rather than otherwise to visit it.⁴³

Kenya’s status as a sportsman’s paradise and playground of the “great white hunter” can be traced, in part, to this principle.

III

Hardinge realized that East African wildlife could be turned into an important source of revenue as long as its sustainable utilization was guaranteed. Mandating hunting licenses and creating reserves as breeding grounds were ways to achieve this target. Reserves, however, would only provide local protection to endangered species. Compared to the grand-scale destruction, especially of elephants, that was perceived to be taking place throughout the continent, many colonial officials deemed reserves and regulations to be of little or no use if unaccompanied by an international agreement to establish certain standards of protection. As Wissmann had encouraged the German Foreign Office to take steps in that direction, Sharpe did likewise on the British side, demanding

that all the powers who hold territory in Africa should agree to prohibit the export of tusks of less weight than, say, 15 lb. each . . . For one power alone, or two or three, however, to pass such a regulation as this would be useless unless all the others joined in it, as it would simply result in the ivory of small size no longer being exported through those particular territories where it was forbid-

den, but going by new channels to the territories which had no such regulations.⁴⁴

Paul Kayser, director of the German Colonial Department, had argued along similar lines when he approached the British Ambassador in Berlin in July 1896 to enquire about the attitude of the British Government towards an international conference on the protection of African wildlife. Kayser was convinced that "British and German authorities would heartily cooperate in the effort to protect elephants and other big game from extermination." In his eyes, the main problem was to secure the adherence of territories like the Congo Free State or Portuguese East Africa, which might seek to benefit from protection measures in the British and German protectorates and provide a ready market for the banned underweight ivory.⁴⁵ Behind all preservationist concern, Kayser pinpointed a manifest structural and economic problem: elephant preservation in the 1890s was first and foremost an East African concern. Although elephants were far from hunted out in the German and British East African territories, populations there had suffered most from trade-related hunting in previous decades. By the 1890s, the main areas of ivory procurement were situated well west of the Great Lakes. The newly erected colonial borders, however, significantly curbed the trade via the old caravan routes towards the east coast, and each of the colonial powers tried to divert as much of the ivory trade as possible towards their own ports and outlets.⁴⁶ German representatives along Lake Tanganyika constantly complained about heavy tolls by which the authorities of the Congo Free State tried to discourage Zanzibari traders from exporting their ivory through German territory via the caravan routes.⁴⁷ Therefore, it was not only decreasing elephant populations that made preservationist measures appear to be most urgent in the East African territories. Waning export figures due to the curtailment of long-distance trade in the interior further added to the impression among German colonial authorities that, without severe measures, the ivory trade would soon cease to be profitable.⁴⁸

Preservationist concern, economic interest and the prevalence of hunters in the British colonial administration led to a most favorable reception of Kayser's proposal on the part of the British Foreign Office. In April 1897 Wissmann, already retired as governor, sketched out his initial conference idea in more detail. Apart from the main issue of banning the trade in underweight ivory, he also suggested addressing questions of general interest such as the breeding and domestication of "useful" animals like the zebra. Both were problems where preservation was inseparably linked with colonial development and thus likely to be seen as more important in the imperial capitals. Wissmann suggested Brussels as the

most suitable venue for negotiations. The Belgian capital had a strong tradition of international and imperial cooperation in African matters,⁴⁹ and it was easily accessible for the invited powers. The former Imperial Governor also expected the authorities of the Congo Free State to have a particular interest in the matter. Having been in the service of Belgian King Leopold II as an explorer, Wissmann had no doubt:

The Congo State will show the utmost readiness to take measures to preserve its natural wealth, ivory. What is true of the Congo State is no less true of the ‘Congo Français,’ and therefore I have little doubt that the French colonial authorities will also see their advantage in adhering to the proposed protective measures.⁵⁰

It can be assumed that Brussels as a venue would have given the conference a more economic edge, with representatives of the trading companies engaged in the Free State trying to gain influence over the proceedings and to limit any economic disadvantage from the restrictions the conference’s findings might cause.

The British Foreign Office, however, objected to Brussels, advocating London and the Foreign Office instead. The shift to the heart of the British Empire meant not only a change of locality, but placed the conference in a more “preservationist” context. This was well illustrated in an internal Foreign Office note that stressed the importance of hosting the conference and placed special emphasis on the fact “that more experts would be in London . . . and there would be an advantage in being able to consult British authorities on the spot.”⁵¹ Those taken to be experts on African wildlife were first and foremost big game hunters, together with a few naturalists and zoologists. While Wissmann still favored Brussels, he acknowledged the advantage of expert knowledge and put forward that each delegation should comprise government representatives as well as experts, be they hunters, naturalists or zoologists.⁵² The Foreign Secretary, Lord Salisbury, remained adamant that London should be the location and the change of venue can be regarded as a general shift of initiative, signifying that Salisbury was now determined to take the lead in the matter.

Expert knowledge, especially that of hunters, remained a characteristic feature in the course of preparations for the conference, as well as throughout the conference itself. Before drafting the conference agenda, Salisbury approached hunters, zoologists and officials with African experience to hear their opinion. Drawing on Wissmann’s suggestions and the help of these authorities, six points were singled out as being of foremost importance: the prevention of the export of elephant tusks of less than a certain weight; the creation of reserves, closed seasons and the prohibition of the hunting of females; a system of licenses for both “na-

tive" and European hunters; the enforcement of the provisions of the Brussels Act in regard to the supply of arms and ammunition to natives; and the complete protection of animals and birds deemed useful.⁵³ As far as the aims of the conference were concerned, expectations were rather low: "The utmost which would be obtained . . . would be the passing of resolutions engaging the governments concerned to issue regulations containing the above or similar provisions."⁵⁴ In successive drafts, Sharpe's grand project of uniform regulations throughout the continent made way for the more limited objective of cooperation between the territories of mainland sub-Saharan Africa north of the Zambezi and German South-West Africa, excluding possible problems with the rival self-governing colonies of South Africa and the Boer Republics. Although the zone finally demarcated still included the African states of Liberia and Abyssinia, both were excluded from participation in the conference. Internationalism was confined to the circle of the "civilized" European imperial powers.⁵⁵ However, the two African states were expected to accede to the regulations afterwards.

IV

After the German government had signaled that it considered the drafts a "suitable basis for the negotiations,"⁵⁶ the British Foreign Office invited representatives from France, Germany, Italy, Portugal, Spain and the Congo Free State to the conference, which finally took place at the Foreign Office between April 24 and May 19, 1900.

The list of participants reveals the varying degree of interest the invited parties had in a conference on the preservation of wild animals, birds and fish in Africa. German and British predominance at the Conference was expressed in the size of their delegations. Germany sent four plenipotentiaries, two of them representing the government,⁵⁷ while Hermann von Wissmann and Carl Georg Schillings, a hunter-naturalist later turned conservationist, took part because of their knowledge of African wildlife gathered from their hunting experience. Apart from the informal expertise of hunters and colonial officials present in London, the official British delegation was headed by the Earl of Hopetoun, who also presided at the conference. He was accompanied by the Director of African Affairs in the Foreign Office, Sir Clement Hill, and the director of the Natural History Museum in London, Edwin Ray Lankester, a distinguished zoologist. Spain, Italy and Portugal sent only one representative of their respective embassies in London, the Congo Free State was represented by a colonial official who had at least worked in the Congo, while the French interest was advocated by two plenipotentiaries from the London embassy and the French Colonial Department in Paris. The

governmental interest dominated, and this was clearly reflected in the strategies pursued during the conference.

Both France and the Congo Free State had expressed their reservations beforehand as far as customs and restrictions on the trade in skins, hides, horns, plumes and immature ivory were concerned, drawing attention to the Congo Basin as an internationally acknowledged zone of free trade.⁵⁸ At the time, the French Government had just started to split up the territory of the French Congo among private companies, granting a thirty-year monopoly to some forty-two companies to extract the natural products of the area. In the Belgian Congo, European companies exploited ivory and rubber using brutal coercion and violence,⁵⁹ and Salisbury realized that “the profitable trade in ivory now going on between the Free State and Belgium”⁶⁰ would represent a major obstacle to any international agreement.

Still, the conference was able to agree on general measures of protection. Banning African techniques of hunting by restricting the use of nets and pits gained general approval, as did closed seasons and the protection of useful animals. Constraints on trade both in arms and in animal products, however, were subject to heated debate. The Anglo-German proposition to prevent the killing of young elephants by prohibiting the export of tusks less than ten pounds and simultaneously raising the customs duty for those weighing between ten and thirty pounds met with staunch opposition from the representatives of France, Portugal and Belgium. In the end, the resulting convention did not forbid the export of immature ivory; it merely rendered all elephant tusks weighing less than five kilograms (approximately ten pounds) liable to confiscation, as well as enacting a general prohibition on the hunting and killing of young elephants.⁶¹ Wissmann and Schillings’ attempt to instil an element of *Weidgerechtigkeit* at the international level failed as well. For years, Wissmann had complained about white hunters, who, furnished with modern breech-loading precision rifles, would not dare to stalk game but instead shot from long distances, leaving many of the game wounded.⁶² Schillings supported his colleague and demanded that the use of these weapons be severely curtailed. The proposition, however, was thwarted by the French representative, Louis Gustave Binger, who emphasized that the present conference did not have the authority to alter or amend the provisions of the Brussels Arms Act agreed upon in 1889.

In its final guise, the convention contained a host of vaguely phrased provisions. Expressions like “to a certain extent” or “as far as it is possible” reduced many paragraphs to mere recommendations.⁶³ France made its ratification dependent on the accession of Liberia and Abyssinia to the convention, whereas Portugal did likewise with respect to the British and German territories in South Africa.

V

The adherence of these powers to the convention, despite the British Foreign Office's frequent efforts, could not be secured in the following years. Thus, the convention was never ratified by all signatory powers, which is probably why the conference, although sometimes hailed as the epitome of "transimperial concern about environmental degradation," "a pioneering effort in international cooperation" or the "world's first international environmental agreement,"⁶⁴ has never received more than a few sketchy lines in any portrayal of the beginnings of international environmentalism.⁶⁵

British representatives at the time, however, did not consider the conference a failure and emphasized "that each power must reserve to itself complete freedom as to the actual administrative measures to be applied in its own possessions," especially as far as matters of "legitimate commerce" were involved.⁶⁶ When, some thirty years later in April 1932, the British Economic Advisory Council discussed the preparation of a new international conference on the protection of nature in Africa, it was pointed out "that although the Convention of 1900 had never been ratified, it had been very largely followed in practice by this country and that other European countries were also gradually coming more into line."⁶⁷ At the conference in 1933, the idea of the reserve, which had been internationally agreed upon in 1900, matured into the "fortress conservation" of the national park.⁶⁸ Participants in the conference in 1933 also acknowledged that reserves "have in the past fulfilled a valuable purpose in preserving wildlife and have probably saved some of the rarer species of animals from extinction."⁶⁹

The 1900 conference on wildlife preservation in Africa established standards which were to dominate conservationist thinking in the twentieth century. Among these were hunting licenses and closed seasons. Most significantly from the perspective of conservation history, the decision to create reserves and protected areas, as one contemporary official noted, was "the most important step to be taken in an unsettled country."⁷⁰ Although references were made to the American origins of this idea, the first East African sanctuaries had little appeal to any nation. Rather, it appears that the sanctuaries inscribed in Africa European ideas of the hunter's responsibility for the well-being of his game, an ethos known as *Hege* in nineteenth-century Germany.⁷¹ For instance, the convention defined reserves as "sufficiently large tracts of land which have all the qualifications necessary as regards food, water and, if possible, salt for preserving birds or other wild animals and for affording them the necessary quiet during the breeding time."⁷² However, even at this early stage there were discussions about whether reserves were of a temporary

nature or “absolues et perpétuelles,”⁷³ and many of the early game reserves were indeed later converted into national parks.⁷⁴ The conference decision to allow local authorities to establish, shift, alter or remove a reserve, thus designating the use of African space according to their will, reflected not only imperial ideologies of white overlordship but also the changeability of the early colonial situation in which administrations claimed territories on the map, but hardly had the means to control them. The German administration in East Africa may serve as a good example. Wissmann’s hastily introduced regulations were substantially altered by succeeding governors, whose handling of the reserves was shaped by the needs of an extractive economy based predominantly on plantations. In fact, marking African maps with green conservation areas at times served merely to silence calls for conservation at home.

Establishing certain standards also meant that these could be claimed by others, including non-governmental actors, and used to exert both intergovernmental and domestic pressure. The provisions of the London Convention were used as both an argument and guideline for measures of wildlife preservation. Many of them were introduced in the game ordinances of German and British East Africa, while in the years up to the First World War, the British Foreign Office constantly encouraged the other signatory states to adhere to the convention. It was also used as a means of exerting metropolitan pressure on the colonial authorities. As the British plenipotentiaries to the conference remarked:

In the present stage of European administration in central tropical Africa, much depends on the formation of a sound public opinion to discountenance the wanton destruction of large numbers of harmless and useful animals by hunters and traders.⁷⁵

Exactly this objective was pursued in Britain by the Society for the Preservation of the Wild Fauna of the Empire. Founded in 1903, the society, later nicknamed the society of “penitent butchers,” attempted to persuade British colonies to adhere to the stipulations agreed upon in 1900, in particular “to further the formation of game reserves or sanctuaries, the selection of the most suitable places and the enforcing of suitable game laws and regulations.”⁷⁶ In Germany, this cause was taken up most fervently by Carl Georg Schillings and a Commission for the Improvement of Wildlife Preservation in German Africa, which formed in 1908 and recruited its members predominantly from German colonial circles. Moreover, the endeavors to preserve the African fauna also had an impact on the formation of conservationist networks at the international level. An example of such a group was the Movement for the Global Protection of Nature promoted by the Swiss explorer Paul Sarasin.⁷⁷ This early non-governmental transnationalism thrived on a global awareness

fueled by imperialism and networks of natural scientists and hunters. This is not the place to discuss the connections between the genesis of conservation as an international problem and the success or failure of conservationists to gain influence at the national level.⁷⁸ It appears, however, as if in the German case Carl Georg Schillings was forced to establish transnational links to back up his case for colonial wildlife conservation, whereas the above-mentioned British society could rely on established networks within the Empire. It could promote its cause thanks to the influence of a distinguished membership, which included many former governors, colonial officials and members of parliament.⁷⁹

The 1900 Conference further serves to highlight the fact that behind a general idea of African “wilderness,” the meanings and values attached to African animals were quite divergent. Although the London Conference referred to the protection of “animals,” it was mainly concerned with “big game”—those animals that could be utilized as an economic resource, be it via sporting licenses or the trade in ivory, skins, hides and horns. The convention emphasized and further refined the distinction between those animals considered vermin and those considered useful or worthy of protection, a distinction that characterized most of the game regulations in the South and East African colonies. It classified African animals on five different levels, distinguishing between “usefulness,” “rarity and threatened extermination” and those where reduction was desired “within sufficient limits.”⁸⁰ Further distinctions were also introduced: in the case of some species the killing of females or of young animals was prohibited; for others, such as elephants, rhinoceroses and hippopotamuses, there were limits to the number that could be hunted in a given time and region. Such regulations were clearly dominated by utilitarian and economic concerns. The interests of hunters in the preservation of “game” ranked highly, especially among German and British authorities, but the preservation of the elephant and other animals as species and *Naturdenkmäler* (natural monuments) was also demanded, both on scientific grounds and with the prospect of preserving this natural heritage for future generations. At the conference, conservationist attitudes differed according to the economic interest involved, but also according to different traditions imported from Europe, especially as far as hunting was concerned.

The conference was also a striking demonstration of how imperialism served as a driving force of international cooperation in environmental matters. This is not to say, however, that imperial rivalries did not matter. All too often, nascent efforts at international cooperation on African conservation issues were impeded by nationalist imperatives and existing transimperial cooperation was obfuscated by nationalist rhetoric. For ex-

ample, Sir Clement Hill, a member of the Foreign Office who had participated in the conference, later emphasized:

We did take the first steps for the preservation of game in East Africa. We initiated an international conference on the subject, and from that date attention has been paid by the nations of the world to preserving the wonderful fauna of East Africa.⁸¹

However, the emphasis on a British “we” should not obscure the fact that colonialism and conservation were imperial European projects, marked by both competition and cooperation, rivalry and transfer. The internationalism of European imperialism might have made the London Conference possible, but it also provided some states with a reason not to ratify the convention—in this case, because Abyssinia and Liberia were not included.

Finally, internationalism and environmentalism are both attitudes that usually have positive connotations, especially when seen against the backdrop of the nationalism and environmental degradation prevalent before the First World War. However, the alliance between European hunters and African wildlife, and the measures taken by colonial authorities to preserve this alliance, seriously affected the livelihoods of the local population. In many areas, Africans lost access to the wildlife which served as a food resource while also losing the ability to control animals that threatened their fields and crops. In short, they experienced imperial environmentalism as a form of environmental imperialism; a process which saw the re-ordering of space, the often violent expropriation of traditional rights, enhanced vulnerability and the imposition of European values.⁸² Indeed, the problems arising from the separation of humans and wildlife in Africa may well be the most persistent legacy of imperial environmental internationalism shaping African conservation to this day.

Notes

This paper presents preliminary results of my PhD dissertation project on hunting and wildlife conservation in German colonialism. I am grateful to the German Historical Institute London for a scholarship to carry out research for this project in Great Britain.

¹ “The Dying Fauna of an Empire,” *The Saturday Review. Politics, Literature, Science and Art*, November 24, 1906, 635ff., quoted from 636. Although “reserve” and “sanctuary” were later invested with specific meanings, contemporaries drew no distinction between these categories and they will be used interchangeably in the context of this essay.

² The terms “preservation” and “conservation” are translated from the German sources according to their established use in environmental history, with preservation denoting the protection of wild nature and conservation referring to sustainable resource management; see Karl Jacoby, “Conservation,” in *Encyclopedia of World Environmental History*, eds. Shepard Krech III, John R. McNeill and Carolyn Merchant (New York; London, 2004), 1:262–268, 266ff.; Joachim Radkau, *Natur und Macht. Eine Weltgeschichte der Umwelt* (Munich, 2002), 269. However, the contemporary British use of the terms did not follow the American meaning of preservation and conservation; see John MacKenzie, *The Empire of Nature: Hunting, Conservation and British Imperialism* (Manchester, 1988), 201.

³ The best analysis of the international dimension of early African conservation from a British perspective is given in MacKenzie, *Empire of Nature*, especially 200–224. William M. Adams, *Against Extinction: The Story of Conservation* (London, 2004), 24ff., makes brief mention of the German influence before 1900, but otherwise his account centers on the history of the British Society for the Preservation of the Wild Fauna of the Empire founded in 1903. Thomas P. Ofcansky, *Paradise Lost: A History of Game Preservation in East Africa* (Morgantown, 2002), also concentrates on British sources and deals with Tanganyika only after the end of the German colonial period. Edward Steinhart, *Black Poachers, White Hunters: A Social History of Hunting in Colonial Kenya* (Oxford; Nairobi; Athens, 2006), deals with inter- and transnational links in conservation only after the First World War.

⁴ For the conceptual framework of internationalism, see Martin H. Geyer and Johannes Paulmann, "Introduction: The Mechanics of Internationalism," in *The Mechanics of Internationalism: Culture, Society and Politics from the 1840s to the First World War*, eds. Martin H. Geyer and Johannes Paulmann (Oxford, 2001), 1–25; Ian Clark, *Globalization and Fragmentation: International Relations in the Twentieth Century* (Oxford, 1997), 33–51.

⁵ See Abdul Sheriff, *Slaves, Spices and Ivory in Zanzibar: Integration of an East African Commercial Empire into the World Economy, 1770–1873* (London, 1987); Immanuel Wallerstein, "The Three Stages of African Involvement in the World Economy," in *The Political Economy of Contemporary Africa*, eds. Peter C. W. Gutkind and Immanuel Wallerstein (Beverly Hills, 1976), 30–56; Roy Bridges, "Elephants, Ivory and the History of the Ivory Trade in East Africa," in *The Exploitation of Animals in Africa. Proceedings of a Colloquium at the University of Aberdeen*, ed. Jeffrey C. Stone (Aberdeen, 1988), 193–220; Edward A. Alpers, *Ivory and Slaves in East Central Africa* (London, 1975); Edward A. Alpers, "The Ivory Trade in Africa. An Historical Overview" in *Elephant: The Animal and its Ivory in African Culture*, ed. Doran H. Ross (Los Angeles, 1992), 349–363; Raymond W. Beachey, "The East African Ivory Trade in the Nineteenth Century," *Journal of African History* 8 (1967): 269–290. A revision of the existing research is provided by Ruth Rempel, "Trade and Transformation: Participation in the Ivory Trade in Late Nineteenth-Century East and Central Africa," *Canadian Journal of Development Studies* 19 (1998): 529–552.

⁶ John Iliffe, *Geschichte Afrikas* (Munich, 1997), 244; Gavin White, "Firearms in Africa: An Introduction," *Journal of African History* 12 (1971): 173–184.

⁷ Wilhelm Westendarp, "Der Elfenbein-Reichtum Afrikas," in *Verhandlungen des fünften deutschen Geographentages zu Hamburg* (Berlin, 1885), 80–91, here 91. The figure is reiterated by Paul Reichard, "Das afrikanische Elfenbein und sein Handel," in *Deutsche geographische Blätter* 12 (1889): 132–168, here 168, and in the *Gazette of Zanzibar and East Africa*, December 1894; cf. Beachey, "Ivory Trade," 287.

⁸ Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), no. 7: Sharpe to Salisbury, September 9, 1896. See also MacKenzie, *Empire of Nature*, 150ff., and Martin Meredith, *Africa's Elephant: A Biography* (London, 2001), 112.

⁹ For a more detailed discussion of the policies concerning elephant hunting in German East Africa, see Thaddeus Sunseri, "The War of the Hunters: Majimaji and the Decline of the Ivory Trade" (unpubl. conference paper, African Studies Association annual conference, Washington, November 2005); Bernhard Gißbl, "The Nature of Colonialism. Being an Elephant in German East Africa" (unpubl. conference paper, "Animals in History," Cologne, May 2005).

¹⁰ For colonial Kenya, see MacKenzie, *Empire of Nature*; Edward Steinhart, "The Imperial Hunt in Colonial Kenya, c. 1880–1929," in *Animals in Human Histories: The Mirror of Nature and Culture*, ed. Mary J. Henninger-Voss (Rochester, 2002), 144–181; Steinhart, *Black Poachers, White Hunters*.

¹¹ Steinhart, "Imperial Hunt," 153.

¹² Ludger Wimmelbäcker, *Kilimanjaro—A Regional History—Vol. 1: Production and Living Conditions, c. 1800–1920* (Münster, 2003).

¹³ Bundesarchiv Berlin-Lichterfelde (BAL) R 1001/7776, fol. 2: Wissmann to the Colonial Department in the German Foreign Office, April 28, 1890.

¹⁴ See John M. MacKenzie, "Chivalry, Social Darwinism and Ritualised Killing: The Hunting Ethos in Central Africa up to 1914," in *Conservation in Africa: People, Politics and Practice*, eds. David Anderson and Richard Grove (Cambridge, 1987), 41–61; Steinhart, *Imperial Hunt*.

¹⁵ An English hunting expedition was denied access to German East Africa in December 1892, and Governor von Soden generally charged sporting expeditions 2,000 marks to grant them permission to hunt in German territory; see BAL R1001/7776, fol. 21 and 22: Soden to the Foreign Office, May 5, 1892, and December 28, 1892.

¹⁶ Wissmann mentions this scheme in a circular dated May 7, 1896, *Deutsches Kolonialblatt* 7 (1896): 340ff.

¹⁷ See Foreign Office Confidential Print (FOCP) 6127, No. 188: Imperial British East Africa Company to FO, Acting Secretary Ernest L. Bentley, June 19, 1891; *The Field, the Farm, the Garden. The Country Gentleman's Newspaper*, May 9, 1891, 680.

¹⁸ Regarding the examples of Frederick Dealyth Lugard, Frederick Jackson and Arthur Neumann, see MacKenzie, *Empire of Nature*, 151–153; Steinhart, *Imperial Hunt*.

¹⁹ BAL R 1001/7776, fol. 25–30: Bronsart von Schellendorf to the Colonial Department, May 11, 1895. Wissmann had taken over government in April 1895.

²⁰ See Johannes Fabian, *Out of our Minds: Reason and Madness in the Exploration of Central Africa* (Berkeley, 2000), 41; Thomas Morlang, "Finde ich keinen Weg, so bahne ich mir einen.' Der umstrittene 'Kolonialheld' Hermann von Wissmann," in "... Macht und Anteil an der Weltherrschaft." Berlin und der deutsche Kolonialismus, eds. Ulrich van der Heyden and Joachim Zeller (Münster, 2005), 37–43; Hermann von Wissmann, *Unter deutscher Flagge quer durch Afrika von West nach Ost* (Berlin, 1889).

²¹ Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), enclosure in no. 10: Wissmann to Baron Richthofen, April 2, 1897.

²² BAL R 1001/7766, fol. 29: Internal Memorandum of the German Colonial Department, drawing on Wissmann's accounts, November 22, 1896.

²³ See Helge Kjekshus, *Ecology Control and Economic Development in East African History: The Case of Tanganyika 1850–1950* (London, 1977), 126–132; Clive A. Spinage, *Cattle Plague: A History* (New York, 2003), 497–524; Thomas P. Ofcansky, "The 1889–97 Rinderpest Epidemic and the Rise of British and German Colonialism in Eastern and Southern Africa," *Journal of African Studies* 8 (1981): 31–38; Richard Waller, "Emutai: Crisis and Response in Maasailand 1883–1902," in *The Ecology of Survival: Case Studies from Northeast African History*, eds. Douglas H. Johnson and David M. Anderson (London; Boulder, 1988), 73–112.

²⁴ "Zanzibar Ivory Trade," *The Gazette for Zanzibar and East Africa* 4 (September 25, 1895).

²⁵ BAL R 1001/7766, fol. 7: Wissmann to Chancellor Hohenlohe-Schillingsfürst, October 29, 1895.

²⁶ BAL R 1001/7776, fol. 31: Wissmann to Hohenlohe, March 26, 1896.

²⁷ See Roderick Nash, "The American Invention of National Parks," *American Quarterly* 22 (1970): 726–735; Roderick Nash, *Wilderness and the American Mind*, 4th ed. (New Haven, 2001); Jane Carruthers, "Nationhood and National Parks: Comparative Examples from the Post-Imperial Experience," in *Ecology and Empire: Environmental History of Settler Societies*, eds. Tom Griffiths and Libby Robin (Keele, 1997), 125–138.

²⁸ BAL R 1001/7766, fol. 56–63: Memorandum of Wissmann, March 20, 1898.

²⁹ Nash, *American Invention of National Parks*, 733.

³⁰ BAL R 1001/7766, fol. 56–63: Memorandum of Wissmann, March 20, 1898.

³¹ "Runderlaß des Kaiserlichen Gouverneurs von Deutsch-Ostafrika an sämtliche Bezirkssämter, das Bezirks-Nebenamt Saadani, Stationen und Dienststellen sowie die Kaiserlichen Bezirksgerichte," May 7, 1896, *Deutsches Kolonialblatt* 7 (1896): 340ff.

³² Head of the Colonial Department Paul Kayser to Martin Gosselin, July 15, 1896, in PRO FO 403/302, no. 4: Martin Gosselin to the Marquess of Salisbury, July 15, 1896.

³³ Itself heavily debated in the last decades of the nineteenth century, *Weidgerechtigkeit* denoted an ethos of sustainable hunting, which claimed the hunter's mastery over nature, but included a moral responsibility of the hunter for his game, for its fair pursuit and for its humane killing without unnecessary suffering; see Hubertus Hiller, *Jäger und Jagd. Zur Entwicklung des Jagdwesens in Deutschland zwischen 1848 und 1914* (Münster, 2003), 135ff.

³⁴ Max Schoeller, *Mitteilungen über meine Reise nach Äquatorial-Ost-Afrika und Uganda 1896–1897* (Berlin, 1901), 1:16ff.

³⁵ BAL R 1001/7776, fol. 56ff.: Ordinance concerning the preservation of the fauna of German East-Africa, January 17, 1898.

³⁶ Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), no. 1: Salisbury to Hardinge and Berkeley, May 27, 1896.

³⁷ MacKenzie, *Empire of Nature*, 207. For South Africa, see Jane Carruthers, *The Kruger National Park: A Social and Political History* (Pietermaritzburg, 1995); Karen Brown, "Cultural Constructions of the Wild: The Rhetoric and Practice of Wildlife Conservation in the Cape Colony at the Turn of the Twentieth Century," *South African Historical Journal* 47 (2002): 75–95; William Beinart, *The Rise of Conservation in South Africa: Settlers, Livestock, and the Environment 1770–1950* (Oxford, 2003).

³⁸ PRO FO 403/302, no. 2 and 3: Foreign Office to India and Colonial Offices, July 14 and 15, 1896.

³⁹ See MacKenzie, *Empire of Nature*, 205ff. However, the collected evidence of the Foreign Office reveals that even here some governments had turned to the creation of reserves for wildlife conservation. Game reserves seem to have been in existence in Zululand since 1895, whereas the Cape Colony featured two elephant reserves; see PRO FO 403/302, no. 10: Colonial Office to Foreign Office, October 8, 1896, transmitting a Memorandum on the Game Laws of Zululand; no. 28: Richard Crawshay to Foreign Office, August 7, 1897. John McCormick dates the first reserves in South Africa as far back as 1857, while private game reserves have existed on large estates since 1875; see John McCormick, *Reclaiming Paradise: The Global Environmental Movement* (Bloomington, 1989), 9. The Boer Republic of Transvaal established the Pongola Game Reserve in 1894, although this apparently had no influence on the discussions in East Africa; see Carruthers, *The Kruger National Park*, 17–23.

⁴⁰ PRO FO 403/302, no. 25: India Office to Foreign Office, July 20, 1897, enclosure 23: Memorandum of the Inspecting Forest Officer of Sirmur, R.H.E. Thompson, February 25, 1897.

⁴¹ Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), no. 7: Sharpe to Salisbury, September 9, 1896 (Game Regulations British Central Africa), no. 9: Berkeley to Salisbury, November 25, 1896 (Game Regulations Uganda), no. 36: Craufurd to Salisbury, August 11, 1899 (Game Regulation East Africa Protectorate).

⁴² BAL R 1001/7776, fol. 53: Liebert to Count Hatzfeldt, April 6, 1898.

⁴³ PRO FO 403/302, no. 31: Hardinge to Salisbury, Zanzibar, August 27, 1897.

⁴⁴ Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, Vol. lxxix, 25), no. 7: Sharpe to Salisbury, September 9, 1896.

⁴⁵ PRO FO 403/302, no. 4: Martin Gosselin to the Marquess of Salisbury, July 15, 1896, and BAL R 1001/7776, fol. 14: Frank C. Lascelles to Baron von Marschall, August 28, 1896.

⁴⁶ Franz Stuhlmann, *Beiträge zur Kulturgeschichte von Ostafrika. Allgemeine Betrachtungen und Studien über die Einführung und wirtschaftliche Bedeutung der Nutzpflanzen und Haustiere mit besonderer Berücksichtigung von Deutsch-Ostafrika* (Berlin, 1909), 791; Oskar Baumann, *Durch Massailand zur Nilquelle. Reisen und Forschungen der Massai-Expedition des deutschen Antiskla-*

verei-Komitee in den Jahren 1891–1893 (Berlin, 1894), 245ff.; Juhani Koponen, *Development for Exploitation. German Colonial Policies in Mainland Tanzania, 1884–1914* (Helsinki; Hamburg, 1994), 198–201.

⁴⁷ Cf. BAL R 1001/698, fol. 141: Report of Hamed bin Muhammed (Tippu Tip) to German Government, Dar-es-Salaam, July 4, 1893; BAL R 1001/644–1, fol. 33: Government of German East Africa to Foreign Office, March 13, 1894.

⁴⁸The following export figures drawn from sources of the British Board of Trade were those the 1900 conference had available for discussion. The ivory export of German East Africa slumped from a peak of 150,500 kg in 1894 to 88,000 kg in 1895, rising to 106,100 kg in 1896 to drop again to 96,900 kg in 1897; see PRO FO 881/7395 H, Appendix 2: return showing approximately the amount of ivory exported from Africa from 1891 to 1899, 18.

⁴⁹ The International African Association had been founded in Brussels in 1876, and in 1889 the European Powers signed a convention for the non-proliferation of arms to African “natives” there; see Madeleine Herren, “Governmental Internationalism and the Beginning of a New World Order in the Late Nineteenth Century,” in *Mechanics of Internationalism*, eds. Geyer and Paulmann, 121–144, 129ff.; Madeleine Herren, *Hintertüren zur Macht. Internationalismus und modernisierungsorientierte Außenpolitik in Belgien, der Schweiz und den USA 1865–1914* (Munich, 2000), 83ff., 91ff.

⁵⁰ BAL R 1001/7766, fol. 39–43: Wissmann to Colonial Department, April 2, 1897. A translation of this letter can be found in PRO FO 403/302, enclosure 2 in no. 22: Gough to Salisbury, May 1, 1897.

⁵¹ PRO FO 403/302, no. 30: Foreign Office to Colonial Office, September 8, 1897.

⁵² BAL R 1001/7766, fol. 56–63: Memorandum by Hermann von Wissmann, March 20, 1898.

⁵³ See PRO FO 403/302, no. 30: Foreign Office to Colonial Office, September 8, 1897.

⁵⁴ Ibid., no. 38: Salisbury to the British Embassy in Berlin, March 3, 1898.

⁵⁵ Ibid., no. 59: Colonial Office to Foreign Office, March 13, 1899.

⁵⁶ Ibid., no. 66: Lascelles to Salisbury, August 8, 1899.

⁵⁷ Count Gustav von Lindenfels was the German Consul-General in London. Theodor Bumiller, who left the conference earlier, had joined Wissmann in his East African campaign 1890/91 and worked for the Colonial Department in the German Foreign Office. Schillings had the inferior status of a delegate and therefore did not sign the Convention.

⁵⁸ PRO FO 403/302, enclosure in no. 79b: De Cuvelier to the British Embassy Brussels, December 5, 1899; no. 86: French Embassy London to Salisbury, December 29, 1899.

⁵⁹ See Martin Ewans, *European Atrocity, African Catastrophe: Leopold II, the Congo Free State and its Aftermath* (London; New York, 2002), 157–165; Catherine Coquery-Vidrovitch, “French Congo and Gabon, 1886–1905,” in *The Cambridge History of Africa*, vol. 6, from 1870 to 1905, eds. Roland Oliver and G. N. Sanderson (Cambridge, 1985), 298–315, 306–308; Jean Stengers and Jan Vansina, “King Leopold’s Congo, 1886–1908,” in *The Cambridge History of Africa*, vol. 6, from 1870 to 1905, eds. Oliver and Sanderson, 315–358, 337–344; Adam Hochschild, *King Leopold’s Ghost: A Story of Greed, Terror and Heroism in Colonial Africa* (New York, 1998).

⁶⁰ PRO FO 403/302, no. 79d: Salisbury to Lascelles, December 13, 1899.

⁶¹ FO 881/7395 B: Protocols of the 3rd session, April 27, 1900; 4th session, April 30, 1900; 5th session, May 1, 1900; 6th session, May 14, 1900; 7th session, May 15, 1900.

⁶² For the discussion of the ban of weapons of precision, see FO 881/7935 B: Protocol of the 4th session, April 30, 1900, 4ff.

⁶³ Convention for the Preservation of Wild Animals, Birds and Fish in Africa, May 19, 1900. In: Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), no. 55, especially Article II, paragraphs 3 and 5 concerning the hunting of females and the establishment of reserves.

⁶⁴ William M. Adams, "Nature and the Colonial Mind," in *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era*, eds. William M. Adams and Martin Mulligan (London, 2003), 16–50, here 32; Nash, *Wilderness and the American Mind*, 355; McCormick, *Reclaiming Paradise*, 18.

⁶⁵ See Ramachandra Guha, *Environmentalism: A Global History* (Oxford, 2000), 45ff.; Martin Holdgate, *The Green Web: A Union for World Conservation* (London, 1999), 10; John W. Meyer et al., "The Structuring of a World Environmental Regime, 1870–1990," *International Organization* 51 (1997): 623–651, here 630. The most detailed accounts so far can be found in Sherman Strong Hayden, *The International Protection of Wild Life: An Examination of Treaties and other Agreements for the Preservation of Birds and Mammals* (New York, 1970), 36–40; and MacKenzie, *Empire of Nature*, 207–209.

⁶⁶ Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), no. 56: Report of the British plenipotentiaries to Salisbury, May 21, 1900.

⁶⁷ PRO MAF 48/247B: International Congress on the Protection of Nature. Paris 1931: Minutes of a Meeting held on Thursday, April 14, 1932, 2.

⁶⁸ See MacKenzie, *Empire of Nature*, 216ff.; Dan Brockington, *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania* (Bloomington, 2002). Unlike reserves, national parks as defined in 1933 should be established on ecological principles with enough space for animals to migrate. Disturbance by humans should be reduced to a minimum, but areas should also be accessible for tourism. Its borders cannot be changed by proclamation, but only through legislative action.

⁶⁹ PRO CO 323/1234/11: International Congress for the Protection of Nature in Africa, enclosure in fol. 29: "Draft Second Report" of the Preparatory Committee, February 21, 1933.

⁷⁰ PRO FO 403/302, no. 94: Lankester to Hill, January 11, 1900. See also Adams, *Against Extinction*, 4.

⁷¹ For the concept of *Hege* see Hiller, *Jäger und Jagd*, 132–139.

⁷² Convention for the Preservation of Wild Animals, Birds and Fish in Africa, May 19, 1900. In: Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), 87.

⁷³ PRO FO 881 7935 B: 4th session, April 30, 1900.

⁷⁴ E.g. Roderick P. Neumann, "Africa's 'Last Wilderness': Reordering Space for Political and Economic Control in Colonial Tanzania," *Africa* 71 (2001): 641–665.

⁷⁵ Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), no. 56: Report of the British plenipotentiaries to Salisbury, May 21, 1900.

⁷⁶ *Journal of the Society for the Preservation of the Wild Fauna of the Empire* 1 (1904): 5. See David K. Prendergast, William M. Adams, "Colonial Wildlife Preservation and the Origins of the Society for the Preservation of the Wild Fauna of the Empire (1903–1914)," *Oryx* 37 (2003): 251–260; Richard Fitter and Peter Scott, *The Penitent Butchers: 75 Years of Wildlife Conservation* (Reading, 1978).

⁷⁷ Paul Sarasin, *Weltnaturschutz. Global Protection of Nature* (Bern, 1911), 15ff.; Stefan Bachmann, *Zwischen Patriotismus und Wissenschaft. Die schweizerischen Naturschutzpioniere (1900–1938)* (Zurich, 1999), 271–279.

⁷⁸ The mechanics of international environmentalism after the First World War are explored by Anna-Katharina Wöbse, "Der Schutz der Natur im Völkerbund – Anfänge einer Weltschuttpolitik," *Archiv für Sozialgeschichte* 43 (2003): 177–190.

⁷⁹ Prendergast and Adams, *Colonial Wildlife Preservation*; Roderick P. Neumann, "Dukes, Earls and ersatz Edens: Aristocratic Nature Preservationists in Colonial Africa," *Environment and Planning D: Society and Space* 14 (1996): 79–98.

⁸⁰ Convention for the Preservation of Wild Animals, Birds and Fish in Africa, May 19, 1900. In: Correspondence relating to the Preservation of Wild Animals in Africa. London 1906 (= Parliamentary Papers, vol. lxxix, 25), 89–91.

⁸¹ J. H. Patterson, "Travel and Sport in East Africa," *United Empire* 3 (1912): 299–315, here 314ff.

⁸² For the case of German East Africa, see Kjekshus, *Ecology Control*; Roderick P. Neumann, *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa* (Berkeley, 1998); Thaddeus Sunseri, "Reinterpreting a Colonial Rebellion: Forestry and Social Control in German East Africa, 1874–1915," *Environmental History* 8 (2003): 430–451; Gregory Maddox, James Giblin and Isaria Kimambo, eds., *Custodians of the Land: Ecology and Culture in the History of Tanzania* (Athens, OH), 1996.

DID THEY KNOW WHAT THEY WERE DOING? AN ARGUMENT FOR A KNOWLEDGE-BASED APPROACH TO THE ENVIRONMENTAL HISTORY OF TWENTIETH-CENTURY AGRICULTURE

Frank Uekötter

"Did they know what they were doing?" The question provokes memories of the early days of environmental history research. As every scholar in the field knows, environmental history developed in close proximity to the environmental movement, and that has left a marked imprint on many a narrative. More than once, the full moral thrust of environmentally righteous anger came to bear on those who were deemed to be at fault for the state of the environment. However, environmental historians have grown more moderate as the field has evolved and "declensionist" is now a subject entry in Carolyn Merchant's *Columbia Guide to American Environmental History* rather than a predominant mood among researchers.¹ In his environmental history of the twentieth century, John McNeill urged researchers to be cautious in labeling changes in the environment as either good or bad, "because environmental changes usually are good for some people and bad for others," a standpoint that is currently evolving into a new scholarly consensus.²

And yet there are probably few fields where this line of reasoning is more difficult to adhere to than in the history of agriculture in the twentieth century. Ever since Rachel Carson pointed to the side effects of excessive use of pesticides, the public has taken notice of a long list of environmental problems: pollution of rivers, erosion and degradation of soils, loss of biodiversity, excessive consumption of energy, odorous discharges, eutrophication, methane emissions contributing to the greenhouse effect and increased vulnerability to epidemics due to the concentration of large numbers of animals.³ One also needs to take into account the fact that the result of all these endeavors is overproduction with global consequences on an unprecedented scale. At the same time, it seems that there are few areas where the environmental movement has made less headway than in this field. In fact, even the recent boom of organic farming in Germany looks tiny if one is mindful of the organic farming lobby's original goals; while organic farming organizations were hoping in the early 1990s to cultivate 10 percent of Germany's farmland by the year 2000, the actual figure was 3.2 percent.⁴ Clearly, every researcher working on the history of agriculture in the twentieth century will inevitably be tempted by cynicism.

The environmental critique of modern farming is well established, and repetition generally has not improved its sophistication. While Hermann Priebe offered a diligent and sober discussion of these problems in his still highly readable *Subsidized Nonsense* (*Die subventionierte Unvernunft*) of 1985, more recent publications, such as *Bananas for Brussels* (*Bananen für Brüssel*), take long excursions into the depths of populism.⁵ Clearly, conventional farming has shown a remarkable resilience to its critics, raising doubts about the political wisdom of opening yet another round of criticism. These doubts are all the more important since the environmental negligence of farmers has its parallel in the neglect of environmental issues in the historiography of twentieth-century agriculture. The boom of agricultural history in recent years has produced a conventional narrative that centers on social and economic issues: the shrinking number of farmers and the increasing average size of their enterprises, the decline of the family farm and the support of farming by German and European taxpayers.⁶ Countering this narrative with discussions of the environmental toll of modern farming would not only produce a history with few surprises, it would also merely replicate the highly dubious mode of discussion that current debates adhere to—one group talks about agricultural production and the other about environmental problems. Integrating both perspectives is the challenge that future debates, historiographic as well as political, will have to meet.

In order to achieve this goal, this essay proposes to focus on the knowledge base of agriculture as it changed over the course of the twentieth century. Many historians have commented on the rise of agricultural productivity in the last 100 years, but few have realized that it required not only new seeds, chemicals and machinery, but also a totally new kind of knowledge about the use of these tools. But who supplied the farmers with this new knowledge? Who defined “good practice” in farming—and who did not? Modern farming textbooks frequently boast about agriculture being an applied science, and the agricultural literature often celebrates scientific progress with unabashed naïveté.⁷ But is the farmers’ knowledge really based on the entire breadth of scientific knowledge, or is it instead heavily circumscribed? How does information flow from the researchers to the individual farmers—and what are the chances for feedback? One of the interesting features of a history of agricultural knowledge in the twentieth century is the fact that farmers never rebelled against the intrusion of scientific knowledge, even though this intrusion obviously threatened the farmers’ ability to make independent decisions. How have farmers—a group with a legendary reputation for conservatism—come to accept advice on new farming methods so readily? How does a farmer sustain his traditional identity as “master in his house” if he cannot make major decisions without the advice of outside experts?

These are the questions that this project seeks to answer, and the title question is to be understood in the most literal sense: Do farmers still know what they are doing in their daily work? The results promise new perspectives on past and present problems of modern agriculture.

The Agrarian Knowledge Society: Theoretical Perspectives

Knowledge is omnipresent, and yet it is easy to overlook. This is probably the reason why so few historians outside the history of science have explicitly dealt with knowledge as a historical phenomenon.⁸ Therefore, a history project of this kind is well advised to seek inspiration from other disciplines that have given more attention to this phenomenon. Specifically, this project may profit from the sociological discussion of the "knowledge society" as it has evolved since the mid 1960s.⁹ The general idea of this theory, according to Helmut Willke, is that social processes in the most general sense "have come to be influenced to such an extent by operations depending on knowledge that processing information, interpretation of symbols and expert systems have become dominant compared to other factors of reproduction."¹⁰ As the following discussion will show, this definition provides an adequate description of the current situation in the field of agriculture: the productivity of modern agriculture would be impossible without the systematic use of scientific knowledge. In fact, experts have come to dominate to such an extent in certain fields that agricultural production would be virtually impossible without input from these experts. Of course, one may quibble about the relative importance of knowledge as compared to other factors of production and whether one can in fact note a *dominance* of knowledge, but it seems of little merit to open such a discussion. Of course, one cannot operate a farm with knowledge alone since one needs capital, labor and land, to mention just some of the essentials. However, all these essentials are of no value without a body of knowledge that gives directions on their proper and effective use, which is what makes knowledge such a strategic asset. Focusing on knowledge is one-sided, but it is one-sided in a productive way.

In his seminal work on the knowledge society, Nico Stehr argued that scientific research has increasingly become the sole source of additional knowledge.¹¹ There is abundant evidence for this argument in the history of agriculture, and yet it is important not to overstate the point. The production of additional knowledge does not necessarily mean that this additional knowledge influences social production to any comparable extent. For example, it is fully possible that new agricultural knowledge does not find its way from the research center to the farmer. It is clear that scientific knowledge often finds its way into society in indirect ways; in

the field of agriculture, it is up to a complex network of advisors to decide on the kind of information that farmers will get. Therefore, these advisors will need to occupy a prominent place in this story and they should not be seen as passive transmitters of new agricultural knowledge. With that in mind, Stehr's related argument that an increase in scientific knowledge will necessarily lead to an increase of options for action becomes somewhat doubtful.¹² If one network of experts achieves dominance in a certain field, they may block the transmission of certain kinds of information, resulting in a decrease and, ultimately, the general disappearance of options. If farmers can only turn to one group of experts for advice because other experts have been discredited, the farmers have no choice but to follow their suggestions, even if they sense that these advisors offer a biased selection of contemporary scientific knowledge. As this paper will show, this is more than a theoretical possibility.

On a more general level, it is important to realize that while the knowledge society may be a result of the rise of science in modern society, one should be wary of a simple conflation of the history of knowledge and the history of science. It is important to note that farming knowledge in particular has never simply been the result of scientific advice. Farming knowledge is to a considerable extent the result of experiences, traditions and everyday routines, and these non-scientific forms of knowledge deserve a prominent place in any history of agricultural knowledge. The focus on the increasing influence of scientific knowledge easily leads to a point of view that perceives every non-scientific type of knowledge as a mere leftover from previous times that is just waiting to be improved upon by scientific knowledge.¹³ However, non-scientific forms of knowledge persist even in today's farming practice, and may in fact fulfill a number of important functions. The rise of the agrarian knowledge society, in short, is not merely part of a Weberian process of rationalization.¹⁴

However, stressing the non-scientific components within the system of agricultural knowledge represents a considerable historiographic challenge. While scientists usually produce an immense number of publications that document their ideas, approaches and theoretical underpinnings, no similar body of literature exists for non-scientific types of knowledge. Unlike scientists, farmers usually do not need to lay out their own knowledge in all its detail and with the implications fully and clearly delineated. Therefore, there is no body of records that provides a direct documentation of agricultural knowledge, and one should treat cautiously the hope that interviews may produce such a set of records. Interviews will most likely reveal more about how farmers *want* to see themselves than about how they actually are.¹⁵

Therefore, this paper proposes to investigate the history of agricultural knowledge by focusing on a group that agricultural history has for

the most part ignored: the agricultural advisors. State agencies as well as private companies hired legions of experts to provide the farming community with information, making them an important part of the network of agricultural knowledge. In a nutshell, the advisors' job was to transform and condense information from the wide spectrum of agricultural sciences into handy little pieces of information that the farmers could use in their daily work. The criteria for the selection and condensation process deserve special attention. At the same time, these advisors gained an intimate knowledge of the farmers' reactions and their knowledge base, and, luckily, they have spoken about their experiences with striking openness on numerous occasions. In fact, there is a vast body of advisory literature and it is primarily this literature that the current project seeks to use, keeping in mind that it needs to be investigated from three different perspectives: first, as a condensation of results from the agricultural sciences that may include certain biases; second, as a source of knowledge for farmers; and third, as documentation of the farmers' feedback.

In this manner, this project takes what one might call a fruitful detour toward a history of agricultural knowledge. Acknowledging that farmers' knowledge is not accessible in a direct way because of a lack of sources—in fact, because of a frequent lack of verbalized knowledge—it focuses on the advisors as the key link between the farmers and the scientific experts. Admittedly, such a study cannot provide an exhaustive picture of an individual farmer's entire scope of knowledge, but it does provide what is arguably much more important on a general scale—a picture of the general conditions that regularly contributed to, as well as limited, farmers' knowledge. Such is the general approach to the history of knowledge that this paper seeks to advance: the history of agricultural knowledge should be written as the history of the structural conditions that left a marked imprint on both the form and the content of knowledge in the field of agriculture.

Open to Multiple Perspectives: The Soil as a Cultural Artifact

Cultivating the soil has always been an activity rife with cultural implications. Given the fundamental importance of the soil for agriculture, this is hardly surprising. In a way, Johannes Knecht was stating the obvious in his agricultural textbook of 1949, when he wrote that the soil was "the most important part of a farm" and that its proper cultivation was "the supreme skill of farming."¹⁶ But there are as many types of soil as there are cultures and, as a result, the way farmers have treated soil has always been open to a wide range of perspectives. Human history provides a rich reservoir of ideas on how to cultivate the soil and how to maintain and

foster its fertility.¹⁷ Of course, the demise of religious interpretations in modern times has somewhat narrowed the range of approaches, and few would argue nowadays that one should identify fertile soils through their taste. Nevertheless, it is important to realize that ever since Justus von Liebig's critique of Albrecht Thaer's humus theory, there has been a plurality of scientific opinions.¹⁸ Chemical, biological, bacteriological, geological and other approaches offer different perspectives on the soil, and maintaining and increasing soil fertility could mean very different things from these disciplinary points of view. Therefore, competition between these approaches offers a promising setting for a case study on the transformation of agricultural knowledge in the twentieth century.

In the previous section, I stressed the importance of incorporating non-scientific forms of knowledge into a history of agricultural knowledge, and the history of conceptions of the soil provides abundant evidence for the merits of such an approach. Farmers deal with the soil on a daily basis and this work produces a rich reservoir of experiences. Due to annual cycles of vegetation, much agricultural work is essentially routine work, and these routines and the tacit knowledge they include are an important part of the body of agricultural knowledge. This is all the more important as scientific experts have become increasingly influential in this field over the course of the twentieth century, putting traditional notions of the soil and farmers' tacit knowledge under growing pressure. To be sure, nostalgia is inappropriate in this context as "indigenous knowledge" was not necessarily better adapted to local environmental conditions. In fact, many reports show that farmers almost routinely mishandled the organic wastes they produced, resulting in a significant loss in nutritional value for organic waste as a fertilizer. For example, Hans Schlangen-Schöningen, the author of a number of highly readable books on farming, noted that "many farmers do not have a grasp of the losses they incur" through inadequate handling of organic wastes.¹⁹ However, while "indigenous knowledge" may often be a synonym for laziness or misinformation, it is important to analyze the causes and consequences of the gradual devaluation of farmers' own experiences.

Less than twenty years after the publication of Knecht's textbook, a booklet for distribution among farmers offered a much more constrained perspective on the soil: "The goal of agriculture," the booklet instructed, "is . . . the proper and purposeful transformation of nutrients into plant substance with the help of the soil as a mediator."²⁰ This extreme but by no means atypical quotation shows that the chemical approach emerged as the dominant one from the competition between the different sciences of the soil. Agricultural chemistry is now the dominant mode of perception among farmers, with other approaches playing an only marginal role at best. Therefore, maintaining soil fertility is now virtually synonymous

with mineral replacement, a view that treats soil as a medium for storing minerals and organic matter. This conception is remarkably similar to that of Justus von Liebig in the mid nineteenth century and members of the scientific establishment frequently refer to Liebig to provide a historical justification for their views.²¹ However, the simple line between Liebig and modern agricultural knowledge is little more than the construct of a scientific discipline undergoing a crisis of legitimacy. The chemical theory of plant nutrition had to establish its dominance over several other approaches, and these conflicts came to a head in the 1920s. The interwar years were a time of severe disagreement between different conceptions of fertilizer use and the result of the ensuing conflicts would determine the face of agriculture, as well as farmers' conceptions of the soil, to the present day.

The Interwar Years as a *Sattelzeit* in the Environmental History of Agriculture

The First World War marked a watershed in the history of agriculture in Germany. The lack of farm workers, and especially the almost complete confiscation of nitrate fertilizer for the production of explosives, disrupted a complex agricultural routine, and farming yields sharply declined as a result. Grain production fell from 27.1 million tons in 1914 to 17.3 million tons in 1918, while the potato harvest fell from 45.6 to 29.5 million tons.²² Therefore, the postwar years saw feverish efforts to restore soil fertility and to remedy the effects of the wartime *Raubwirtschaft* (exploitative economy).²³ However, the supply of fertilizers had changed significantly since the 1910s. The invention of the Haber-Bosch process made atmospheric nitrogen available for fertilizer production, thus opening a practically limitless reservoir of the most critical plant nutrient.²⁴ At the same time, manure had become scarce as a result of wartime cutbacks on livestock and inadequate feed, which placed the traditional role of organic wastes in jeopardy.²⁵ As a result, increasing the use of mineral fertilizers became the rallying cry for the vast majority of agricultural experts, with the promise of the scientific establishment that with massive doses of mineral fertilizers, prewar yields would return almost immediately. In typical fashion, a brochure from 1921 declared, "The exhaustion of our soils can be remedied only through an intensive, rational use of mineral fertilizer."²⁶

But the promise of a quick return to prewar conditions proved illusory. Per-acreage yields stayed below prewar figures for much longer than expected and the massive campaign for the use of mineral fertilizer came to appear dubious to many farmers. Mineral fertilizer was the most significant investment for many farmers and, with farmers struggling to

keep out of debt during the 1920s, this issue was by no means unimportant.²⁷ In addition, the massive use of mineral fertilizer led to the acidification of many soils, inhibiting the growth of certain plants.²⁸ In 1923, Ernst Niggel warned that soil acidity constituted “a threat that has attracted too little attention so far.”²⁹ Of course, farmers could use lime to restore a neutral condition, but this took two to three years to achieve results and involved significant costs. Also, one should not underestimate the impact of liming on the farmers’ mindset: from the farmers’ perspective, liming was irritating in that it took a chemical substance to remedy a problem caused by a chemical substance.³⁰ The prospect of ruining the most essential basis of agricultural production was disturbing, if not traumatic, for many farmers. One expert later noted that the most important consequence of this episode was the “psychological effect”: “Agricultural chemistry lost credit in the eyes of many people.”³¹ In short, agricultural chemistry experienced a deep crisis of confidence, thereby providing an opening for other approaches to soil fertility.

One such competing approach grew out of the field of soil microbiology, which experienced a temporary boom in the 1920s. While bacteriology was instrumental in the rise of the medical sciences in the late nineteenth century, it had played a marginal role in the field of agriculture due to the dominance of agricultural chemistry.³² As a result, scientific knowledge about bacteriological processes in the soil was generally scarce; Felix Löhnis, the most important agricultural bacteriologist of the 1920s, once spoke of a “still quite darkish field.”³³ Löhnis had been a researcher at the University of Leipzig until 1914 when he joined the United States Department of Agriculture as an expert on soil bacteriology. In 1925, he returned to Leipzig to fill a newly created chair of agricultural bacteriology, a step which he hoped would encourage other universities to follow suit.³⁴ Löhnis was optimistic about the prospects of his field, not least because he saw the contemporary situation as generally conducive to agricultural bacteriology: “In the present time, with the urgent need to save labor and capital as much as possible, the rational use of soil bacteria working for free deserves all attention.”³⁵

However, agricultural bacteriology soon encountered a number of significant problems, the most important one being essentially home-made. Soil microbiology focused on the investigation of the basics of bacteriological processes in the soil and failed to provide farmers with answers to questions of practical relevance. Without a thorough understanding of the fundamentals of soil bacteriology, Löhnis argued, the business of giving advice to farmers would stand on very shaky ground.³⁶ To be sure, Löhnis would sometimes refer to practical farmers like Schultz-Lupitz and depict agricultural bacteriology as a response to the wishes of the farming community. However, there was never any

systematic attempt to get back to these practitioners with specific rules of good practice.³⁷ In fact, even the question of whether there was a usable method of soil investigation based on bacteriology was absurd for him.³⁸ In a telling episode, he noted that more information on the effect of tillage on bacterial life would be desirable. However, lacking sufficient research on this issue, he urged farmers to find out the right approach for themselves “and then wait patiently until scientific research has found an explanation for their practical successes.”³⁹ It seems the limitations of a discipline that only explained retrospectively what people were already doing were never apparent to Löhnis. Therefore, the field’s prospects were already dim when Löhnis died unexpectedly in 1931, essentially ending all hopes of a soil microbiology boom in Germany. However, even these small beginnings were met with considerable hostility from the agricultural science establishment. The minutes of the committee on general fertilizer affairs of the Prussian Ministry of Agriculture provide a case in point. When a professor from the agricultural university of Berlin called for more attention to humus (“plants do not simply grow from mineral fertilizer”) and expressed his regret about the recent death of Löhnis and the probable discontinuation of his chair, his statements met with strong opposition. At the following meeting, the professor spoke of the “polemic” he had encountered and stressed that he was using mineral fertilizer himself in order to forestall a new wave of attacks.⁴⁰ Clearly, the upswing of research in agricultural bacteriology was followed by a good degree of skepticism, if not hostility, within the agricultural chemistry establishment.

However, agricultural bacteriology was not the only competitor that the agricultural chemists faced in the 1920s. Since Rudolf Steiner’s lectures on agriculture in 1924, a group of ardent anthroposophists had sought to develop a new kind of organic farming that refrained from the use of mineral fertilizer altogether. This “biodynamic agriculture” (*biologisch-dynamische Landwirtschaft*) quickly drew criticism from the agricultural science establishment to an extent that is difficult to understand at first glance. For example, in 1935 the director of the Federal Bureau of Biology (*Biologische Reichsanstalt für Land- und Forstwirtschaft*) wrote that, in his eyes, organic farming was “99 percent humbug.”⁴¹ When the German chemists’ journal *Chemiker-Zeitung* published a scathing attack on organic farming in 1934, the article was supplemented by an editorial note complaining of the “heresies” in the field of soil fertility being proposed “with a fanaticism that is reminiscent of the dark ages of medieval ignorance.”⁴² After the Nazis’ seizure of power in 1933, an article with the emblematic title “Hands off our reliable fertilizing methods!” even called upon the new regime to crack down on these “charlatans.”⁴³

In his book *Subsidized Nonsense*, Hermann Priebe wondered why a farming method that occupied less than one percent of Germany's arable land was creating such a stir, and it seems worthwhile to ask the same question for the interwar years.⁴⁴ "There is no doubt among the experts that only a small amount of ash will remain from this straw fire," one expert wrote.⁴⁵ But if the experts were certain about the prospects of organic farming with the Steiner method, it is difficult to understand the bitterness of their attacks. Why did the experts not simply lean back and wait until the anthroposophists had worked their way into bankruptcy? Why did the agricultural science establishment react with such vigor and even go to the extreme of trying to solve the dispute with the help of the Nazi regime? To be sure, the attacks were in part a response to the anthroposophists' marketing strategies. In their publicity efforts, organic farmers often focused on the public at large rather than merely on other farmers, suggesting a link between the use of mineral fertilizer and cancer.⁴⁶ The fear of cancer turned out to be a powerful marketing tool, and many consumers sought organic farming products as a result. Numerous farmers were selling their products as "grown without mineral fertilizer" in order to achieve better revenues, even though they had frequently followed the conventional methods of fertilizing. The certification of organic farming products and clear definitions of the "dos" and "don'ts" of organic farming were still several decades away, thus opening the door for fraud.⁴⁷ Of course, all this did not evoke any sympathy for organic farming in the agricultural science establishment, and yet it would be misleading to depict the massive attacks on organic farming as simply a response to a challenge from outside. In their critique of organic farming, the scientific establishment was also pursuing a number of strategic goals. In light of their interests and against the background of the crisis of confidence of the 1920s, one could even argue that the clash over organic farming was the perfect dispute at the perfect time.

On the most general level, the critics of organic farming sought to prevent the formation of a competing network of expertise. The campaign did not fully succeed in this regard—as the continued existence of organic farming up to the present demonstrates—but it did succeed in restricting organic farming methods to a small fringe. Even more importantly, the critics succeeded in preventing any meaningful exchange between conventional and organic farming; every practitioner knew that he could turn to either system of expertise, but not to both at the same time. Even on a scientific level, contacts were rare and were met with great skepticism; up to the 1980s, seeking a dialogue with organic farming experts put a scientist's professional reputation at risk.⁴⁸ In addition, the critique of organic farming helped to foster a general skepticism towards biological concepts of soil fertility and, ultimately, the controversy canonized a

chemical understanding of soil fertility. The true importance of this impact becomes clear when one looks at the general character of the field. The agricultural chemistry establishment was a chaotic conglomeration of research institutions from completely different backgrounds: university departments and institutes sponsored by the farmers' corporate representations (*Landwirtschaftskammern*) mixed happily with institutes sponsored by the producers of mineral fertilizers. The importance of the latter becomes apparent when one considers the major producers of mineral fertilizer in Germany. Potash fertilizers came from state-owned mines, heavy industry sold phosphate from the production of steel in Thomas converters and IG Farben supplied nitrogen fertilizers. In other words, the three most powerful forces in the German economy were united by a common economic interest in chemical fertilizer. In light of this confluence of interests, the lack of a truly independent branch of agricultural chemistry is by no means surprising.

However, the complex mixture of industrial, agricultural and scientific concerns also suggests that rules of good scientific conduct were notoriously difficult to establish. There was neither a supreme authority that could define rules nor a forum where the profession could meet and develop rules of this kind (which Peter Galison refers to as a "trading zone"⁴⁹). Therefore, the conflict with organic farming provided a perfect opportunity to hammer home a few important rules: do not get in touch with organic farming experts, do not seek an understanding of soil fertility that moves beyond chemistry and do not bother with organic fertilizers too much. Of course, every expert in the field was aware of the fact that the vast majority of farmers used manure on a regular basis—but at the same time, the general tendency in the field was to marginalize the study of manure as a fertilizer and to focus on mineral fertilizer instead. Over time, this turned into a highly influential bias; mineral fertilizer came to be regarded as the "true" fertilizer that commanded the lion's share of attention, while organic wastes were seen as marginal. As a result, manure did not attract major attention from the agricultural science establishment until long after the Second World War when it came to be viewed as an environmental problem rather than an agricultural asset.

The Mathematics of Biology: Quantifying Soil Fertility

While agricultural chemistry was competing with other schools of soil fertility, it was simultaneously struggling to resolve a second problem that was instrumental for its rise to predominance: the issue of dosage. The conventional literature provided ample information about the characteristics of individual nutrients, the types of fertilizer and their proper

handling. However, as farmers relied on mineral fertilizer more and more heavily in the interwar years, they were no longer content with general information. Faced with a crisis of confidence and the significant economic risk of high fertilizer expenditures, they were asking for more precise directions: What amount of what type of fertilizer should they use for their crops? From the point of view of agricultural scientists, this posed a dilemma. They could not ignore this demand without risking their own jurisdiction over fertilizer use. But at the same time, there was no way to deny that they had no proper scientific method to meet this demand.

Many researchers conducted field experiments in a way defined by the head of the Darmstadt Agricultural Research Station, Paul Wagner. This method called for five plots of land with different inputs of nutrients: one plot received nitrogen, phosphate and potash fertilizer, three plots received two of these nutrients and one plot was left without fertilizer.⁵⁰ Therefore, these experiments could only produce qualitative results. They could indicate, for example, if the addition of a certain nutrient was necessary for plant growth, but provided little indication of exactly how much of it was required. On the issue of dosage, therefore, Wagner's method was irrelevant. Since they lacked an established method to produce reliable figures, many advisors tried to avoid the farmers' pointed questions for precise recommendations. Frequently, advisors encouraged farmers to use their intuition, citing "self-observation and self-examination" as the best sources of information.⁵¹ "The general guideline for the choice and use of mineral fertilizers is the local and individual, as opposed to the schematic, approach," declared a 1930 handbook.⁵² Even publications that offered precise figures by way of advice warned of a schematic approach to fertilizer use and called on farmers to take specific local conditions into account.⁵³

It is interesting to note that the chemical method of soil analysis, which remains the standard method today, initially met with almost unanimous skepticism. For example, Gustav Höppner noted that a chemical analysis would only produce usable results in those rare cases where one nutrient was almost completely absent, thereby questioning whether the method was an improvement on Wagner's approach.⁵⁴ Another publication of the same year mentioned field experiments as the only reliable method, depicting chemical and other methods as potentially "misleading."⁵⁵ In 1924, an author explained that his own reservations were due to the fact that chemical investigations would only demonstrate the presence of certain minerals without revealing whether they were actually soluble and thus available to the plant.⁵⁶ In fact, even experts conducting these analyses were eager to tap other sources of information as well; one researcher supplemented his chemical analyses

by handing a three-page questionnaire to farmers in order to consider a wide range of factors as fully as possible.⁵⁷ A 1926 handbook concluded that, “valuable as all these physical and chemical methods may be, personal observation, trained through constant practice, stands above them all.”⁵⁸

Despite the fact that such criticism of the chemical method was never fully addressed, the early skepticism gradually faded away over time. Nothing demonstrates this development more dramatically than today’s system of soil analysis in which farmers are compelled to submit soil samples to a laboratory of the state-funded Agricultural Research Station (*Landwirtschaftliche Untersuchungs- und Forschungsanstalt*) at least once every six years. Farmers who submit an overview of their future crops to the institute will receive a printout, produced by a computer program euphonically named “DungPro,” supplying them with detailed information on the nutrients their soil will require if it is to meet future projections.⁵⁹ This routine procedure is all the more remarkable since the uncertainties of the method have by no means disappeared. A recent handbook on plant nutrition and fertilizing, while praising soil sampling for its speed and low cost, also mentions that the method’s lack of precision was a significant disadvantage.⁶⁰ The causes of error and imprecision are numerous: acres are usually not uniform in their mineral content, a problem that soil samples usually blank out in favor of an arithmetic average; the method does not account for concentrations at different depths; the solvent needs to extract within a matter of hours what plants would extract over several months; and the method inevitably needs to ignore the impact of future weather conditions.⁶¹ All in all, the uncertainties are staggering.

However, scientific precision is not necessarily the most important issue in determining the selection of a certain method. In the consultation business, time constraints soon came to dominate the choice of methods. Eilhard Alfred Mitscherlich’s soil investigation experience in Eastern Prussia provides a case in point. Faced with the task of writing some 2,000 reports within a brief span of time, Mitscherlich adopted a simple form that provided the farmers with basic quantitative information. More detailed, non-quantitative comments were postponed until the winter, when there was more time for personal meetings with the farmers. Time constraints, therefore, relegated such reports to the status of second-rate information.⁶² The farmers’ persistent demand for exact figures met with a growing readiness of scientists to supply this kind of information, and that created a crucial dynamic of its own that gradually pushed all scientific doubt to the margins. Interestingly, Mitscherlich took a much more skeptical view of his own method two decades later: “It is certain that one will never be able to tell the farmer how much of a certain fertilizer he

should use on the basis of chemical soil analyses.”⁶³ However, objections of this kind did little to curtail use of the method.

Today’s advisory literature usually ignores the uncertainties of chemical soil analysis. As a recent article in a popular farming journal declared, “soil analyses are the indispensable tool for optimizing fertilizer use.”⁶⁴ The environmental contingencies of this approach become apparent when one realizes that even if the figures are precise, the approach inevitably ignores a whole host of factors such as the condition and size of the humus layer, the amount of bacterial activity and the density of the soil. These and other parameters naturally have an influence on soil fertility, but they do not enter into the calculations of DungPro, which simply sees the soil as a temporary storage space for minerals. In fact, even a severe problem like erosion will remain undetected within this system of knowledge, a worrisome situation in a country where erosion is usually a long-term process, though without exigencies of the dust bowl variety. Clearly, there has been a good deal of erosion of both the German soil and of the body of agricultural knowledge that is meant to address such problems.

Coping with Expert Dependency

Agricultural chemistry emerged from the conflicts of the interwar years as the dominant discipline within agricultural science. However, by ignoring erosion and other environmental problems, it puts at risk the most essential elements of agricultural production. How did farmers react to all of this? Many essentially surrendered command over their fields to a software program, and it is difficult to imagine that such a deep shift of knowledge could occur without major repercussions. There is abundant evidence indicating that groups of any kind usually resist attempts to usurp their productive knowledge. Paradoxically, although farmers showed signs of resistance to scientific agriculture during the interwar years, their opposition dwindled at the same time the intrusion of scientific knowledge into agriculture was gaining full force. What factors account for this apparent surrender to scientific agriculture?

The most fundamental cause of this paradoxical situation is the immense degree of trust that farmers have developed towards farm advisors.⁶⁵ Without a strong sense of shared identity among farmers and the popular juxtaposition of “we the farmers” against “the rest of society,” the trusting relationship between farmers and scientific advisors would be unthinkable.⁶⁶ But trust and collective identities were closely dependent on the apparent merits of acquired knowledge. Success, at least from the perspective of short-term production, was the key reason for the farmers’ trust in outside advisors. In short, it seemed to pay to listen to

them. While mineral fertilizer did not increase per-acreage yields as quickly as promised in the early 1920s, it certainly became clear in the long run that mineral fertilizer did boost agricultural productivity. The massive rise of per-acreage yields after the Second World War underscored the legitimacy of the agricultural advisors, lending them an aura of indispensability. This great sense of trust was apparent in farmers' attitudes toward a new software program that allows them to customize their fertilizer usage plans. The program was commissioned by Hydro Agri, a major producer of mineral fertilizer. Thus the program entails entrusting the calculation of fertilizer needs to a producer of fertilizer. Common sense would suggest that this is a risky undertaking, but farmers obviously think otherwise.⁶⁷

But trust and productivity are only one part of the explanation. The other part is distraction: the preoccupation of today's farmers with other issues. It is by no means coincidental that the increasing dominance of scientific advisors developed at the same time as the mechanization of agricultural production: the former was possible only because it was embedded in the latter. Like the history of fertilizer use, the early relationship between the farmers and their machines went through a period of estrangement. In the 1920s, one author reported that many farmers still saw technology as "a necessary evil."⁶⁸ Similarly, Hans Schlangen-Schoenichen mocked "tractor-fancy" in 1927 as an example of the excesses of modern farming.⁶⁹ But soon machines became a routine part of agricultural work and ultimately a source of pride. A new type of farmer emerged, the technologist with a penchant for up-to-date machinery and do-it-yourself repairs. In the 1990s, agricultural machinery dealers were selling (as opposed to installing) about 50 percent of the total number of spare parts because many farmers wanted to install these parts themselves.⁷⁰ Of course, saving money was part of the motivation, but so was a fancy for technology. Interestingly, the advisory literature was often hesitant about pushing the use of the latest machinery and instead called for caution and cool heads in this respect. However, this advice mostly fell on deaf ears. "Those who are buying the latest technology for reasons of prestige and progressiveness are usually producing with excessive costs," a recent handbook on farm economy noted; and it was by no means the first admonishment of this kind.⁷¹ But the persistent increase in tractor horsepower since the Second World War provides a telling indication of farmers' priorities.

The links between the growing prominence of scientific experts and the mechanization of farm production were functional as well as ideological. On a functional level, machines required a great deal of attention and time for maintenance, thus diminishing the farmers' chance to monitor other parts of their enterprises as diligently as before. For example,

while farmers traditionally learned much about their soils by walking behind the plough, farmers using tractors for tillage devoted much of their attention to the proper operation of the engine. Thus an expert who offered detailed information on proper fertilizer use could appear not as an intruder into a core area of farming knowledge, but as a welcome aide who brought clarity into an area that a farmer could not thoroughly deal with for lack of time. The impact of mechanization on farmers' identities was no less important. If a powerful tractor and up-to-date equipment are the farmers' new fetish, then a loss of interest in fertilizer seems only natural; after all, chemicals and odorous wastes are about the least prestigious farming tools one can imagine. As a result, farmers readily ceded authority on this dull subject to a trustworthy expert. For them, the key issue was not autonomy, but prestige. Naturally, it would take a major incentive, or incident, for these farmers to redirect their attention to the soil.

Conclusions

Do farmers still know what they are doing? Based on the previous discussion, the answer seems clear: no, they do not—and that is part of the problem. Under an advisory regime that ignores any non-numerical input, the farmer has basically no choice but to accept the DungPro printout and to follow its instructions. Furthermore, preoccupation with the latest machinery keeps most farmers from thinking about their fateful situation. Of course, a farmer may choose to distrust the experts' recommendations, but that leaves him with the dreary task of figuring it out for himself. In their book on the history and future of the soil, John Seymour and Herbert Girardet repeatedly note that farmers are heeding scientific advice while at the same time feeling uneasy about it.⁷² At first glance this may look like irrational behavior—until one considers the available alternatives. If farmers are heeding advisors' recommendations, this is not due to the aura of scientific expertise or ignorance about the narrow approach the experts are taking. In many cases, farmers simply trust experts because they have little choice.

Of course, the experts themselves favor a completely different narrative. Members of the scientific establishment routinely point out that the systematic use of scientific knowledge brought productivity to unprecedented levels, making the fear of starvation generally unknown in Western society. Responding to environmental critics, a publication of the federal department of agriculture in 1980 defended the use of mineral fertilizers as follows: "Modern industrial society, blessed with a surplus of food, oftentimes forgets that without mineral fertilizer we would still be dependent on the vagaries of weather in our food supply, making

frequent starvation crises inevitable.”⁷³ It would be tempting to counter this argument by pointing to its ideological function—but such a response would adhere to a discursive pattern that environmental historians should question rather than underscore. Recent debates about agriculture frequently follow a strictly dichotomous pattern: one group talks about production, another group talks about the environmental toll, and both groups depict each other’s line of reasoning as mere ideology. Breaking this stalemate requires a third perspective and it is the contention of this essay that a history of agricultural knowledge may provide such a perspective. It shows that the dichotomy between the two narratives is deceptive; the real issue should be the discursive pattern that *created* these distinct narratives. The question is not whether to side with the experts or their counterparts. Instead, we should be asking: Who is the expert, since when, and for what reason? When agricultural scientists pit their own expertise against the concerns of environmentalists, as the department of agriculture did in its apology for mineral fertilizers in 1980, it is only through a closer investigation of their claim to expertise that one can reveal the pitfalls of their argument. Productive agriculture does need scientific knowledge, but it does not need a constrained conception of soil fertility. In fact, a more comprehensive approach to soil fertility may be the truly productive path in the long run.

Therefore, a history of agricultural knowledge in the twentieth century should avoid both celebration of scientific progress and nostalgia for besieged indigenous knowledge. Both narratives have a point—and both narratives fail to grasp the story in its full complexity. Of course the agricultural sciences allow us to describe and predict processes in the soil more precisely than ever before. However, that raises the question of why so much of this scientific skill is lost in the daily routine of fertilizer use. Furthermore, while it is critical to note that the dominant system of knowledge increasingly pushed the farmers’ experiences to the margins, that does not mean that a system of agricultural knowledge based primarily on the farmers’ experience and intuition would produce higher yields. In fact, it is interesting that these conflicting narratives agree on one highly dubious point; they depict the rise of “scientific agriculture” in the twentieth century as a strangely monolithic process without actors, key decisions or alternatives. Exposing this notion as an ideological construct must be a key goal of a history of agricultural knowledge in the twentieth century.

In his monograph on the knowledge society, Nico Stehr notes that such a society differs from previous ones because its structure is to a greater extent the result of social action. “It is a society,” Stehr explains, “where ‘secondary’ nature is vastly more important than ‘primary’ nature.”⁷⁴ An environmental historian will read such a statement with a

sense of alarm: What happens if the rules of the knowledge society are at odds with the dynamics of nature? From such a point of view, the agrarian knowledge society looks like a runaway steam train—a system of knowledge with a vast impact on nature and little room for feedback. The prospect of this situation is all the more reason to put the current system of agricultural knowledge under close scrutiny, something that people such as Renate Künast, who became Minister of Agriculture in the wake of the mad cow disease crisis in early 2001, have conspicuously failed to do. So far, reforms have concentrated for the most part on financial incentives and legal prohibitions, an approach that seeks to modify our current system of agricultural production without asking the most basic question: How do we make sure that the key pillars of the agrarian knowledge society remain in sync with the laws of nature? At present, it seems likely that the new system of agricultural knowledge will marginalize the experiences of farmers in the same way the old one did.

A recent publication on the future of sustainable agriculture urged the state to abandon its penchant for detailed rules and regulations. "The state should not command modes of production in a direct way," the authors wrote; instead, the state should concentrate on formulating some general guidelines and leave it to society to come up with concrete proposals.⁷⁵ In short, their call was for experimentation and an open exchange of ideas—and, most importantly, for a public discussion that reaches beyond established circles of experts. Perhaps a history of agricultural knowledge can make a significant contribution to such a discussion; after all, such a history can reveal the traditions, practices and lines of reasoning that so far have constrained our chances for an open discussion of the present and future of agriculture. Not least, such a history can reveal the path that led to the current silence on the issue: one group talks about production and another one about environmental problems, and both groups cherish their stereotypes of each other more than an open dialogue. One thing is clear: if we are to move towards an agriculture that is both productive and sustainable, we will require ideas and insights from both groups. No doubt this vision demands a great deal from all parties involved. But it also provides all parties with the kind of broad-based vision that is painfully missing in current clashes over agricultural "rights" and "wrongs." And perhaps this vision will even free researchers in the field from their constant flirtation with cynicism.

Notes

¹ Carolyn Merchant, *The Columbia Guide to American Environmental History* (New York, 2002), 206.

² John R. McNeill, *Something New Under the Sun: An Environmental History of the Twentieth-Century World* (London, 2000), xxiii.

³ For an overview, see Frieder Thomas and Rudolf Vögel, *Gute Argumente: Ökologische Landwirtschaft*, 2nd ed. (Munich, 1993). On an international scale, see Jason Clay, *World Agriculture and the Environment: A Commodity-by-Commodity Guide to Impacts and Practices* (Washington, 2003).

⁴ Alexander Gerber, Volker Hoffmann and Michael Kügler, "Das Wissenssystem im ökologischen Landbau in Deutschland. Zur Entstehung und Weitergabe von Wissen im Diffusionsprozeß," *Berichte über Landwirtschaft* 74 (1996): 591–627, here 608; Götz Schmidt and Ulrich Jasper, *Agrarwende oder die Zukunft unserer Ernährung* (Munich, 2001), 111.

⁵ Hermann Priebe, *Die subventionierte Unvernunft. Landwirtschaft und Naturhaushalt* (Berlin, 1985); Volker Angres, Claus-Peter Hutter and Lutz Ribbe, *Bananen für Brüssel. Europa – wie unsere Steuern vergeudet werden* (Munich, 2000).

⁶ For an overview of current approaches, see Daniela Münkel, ed., *Der lange Abschied vom Agrarland. Agrarpolitik, Landwirtschaft und ländliche Gesellschaft zwischen Weimar und Bonn* (Göttingen, 2000).

⁷ E.g. Günther Thiede, *Die grüne Chance. Landwirte zwischen Tradition und Fortschritt* (Frankfurt/Main, 1992), 10.

⁸ Achim Landwehr, "Einleitung: Geschichte(n) der Wirklichkeit," in *Geschichte(n) der Wirklichkeit. Beiträge zur Sozial- und Kulturgeschichte des Wissens*, ed. Achim Landwehr (Augsburg, 2002), 9–27, here 15.

⁹ For an overview, see Nico Stehr, *Arbeit, Eigentum und Wissen. Zur Theorie von Wissensgesellschaften* (Frankfurt, 1994), 26ff.

¹⁰ Helmut Willke, "Organisierte Wissensarbeit," *Zeitschrift für Soziologie* 27 (1998): 161–177, here 162.

¹¹ Stehr, *Arbeit*, 201.

¹² Ibid.

¹³ See Landwehr, "Einleitung," 17.

¹⁴ See Stehr, *Arbeit*, 16.

¹⁵ Joachim Ziche, *Das gesellschaftliche Selbstbild der landwirtschaftlichen Bevölkerung in Bayern. Eine empirische Untersuchung*, Bayerisches Landwirtschaftliches Jahrbuch, vol. 47, special edition 2 (Munich, 1970) 112.

¹⁶ Johannes Knecht, *Das Jahr des jungen Landwirts. Ein Lehr- und Handbuch für den landwirtschaftlichen Berufsschüler und Landwirtschaftslehrling*, 2nd ed. (Stuttgart; Ludwigsburg, 1949), 26.

¹⁷ See Verena Winiwarter, "Landwirtschaftliches Wissen vom Boden. Zur Geschichte der Konzepte eines praktischen Umgangs mit der Erde," in *Erde*, ed. Bernd Busch (Cologne, 2002), 221–232; Ernst Ehwald, "Entwicklungslinien in der Geschichte der Bodenkunde vom klassischen Altertum bis zum 18. Jahrhundert," *Albrecht-Thaer-Archiv* 6 (1962): 95–110.

¹⁸ See Ursula Schling-Brodersen, *Entwicklung und Institutionalisierung der Agrikulturchemie im 19. Jahrhundert. Liebig und die landwirtschaftlichen Versuchsstationen*, Braunschweiger Veröffentlichungen zur Geschichte der Pharmazie und der Naturwissenschaften 31 (Stuttgart, 1989); George E. Fussell, *Crop Nutrition. Science and Practice before Liebig* (Lawrence, 1971).

¹⁹ Hans Schlange-Schöningen, *Das Wirtschaftsjahr des praktischen Landwirts* (Berlin, 1931), 83.

²⁰ W. Jahn-Deesbach, "Aufgaben und Probleme der Gründüngung im modernen Ackerbau," in *Bodenfruchtbarkeit ohne Stallmist?* ed. Ruhr-Stickstoff AG, Landwirtschaftliche Schriftenreihe Boden und Pflanze 12 (Bochum, 1965), 27–59, here 35.

²¹ Herbert Kuntze and Wolfgang Voss, *Statusbericht Düngung*, Schriftenreihe des Bundesministers für Ernährung, Landwirtschaft und Forsten, Reihe A: Landwirtschaft—Angewandte Wissenschaft 245 (Münster-Hiltrup, 1980), 6.

²² Wolfgang J. Mommsen, *Die Urkatastrophe Deutschlands. Der Erste Weltkrieg* (Stuttgart, 2002), 93.

²³ E. Langenbeck, *Zur Berufswahl des Landwirts*, Flugschriften der Deutschen Landwirtschafts-Gesellschaft 17 (Berlin, 1921), 8.

²⁴ See Margit Szöllösi-Janze, *Fritz Haber 1868–1934. Eine Biographie* (Munich, 1998).

²⁵ See Kuhn, "Landwirtschaftliche Produktion im Zeichen der Düngernot," *Mitteilungen der Deutschen Landwirtschafts-Gesellschaft* 35 (1920): 346–352, here 347.

²⁶ Dr. Smalakies, *Die Bedeutung der Kunstdünger für den Wiederaufbau der deutschen Landwirtschaft* (Berlin, 1921), 7.

²⁷ Schlange-Schöningen, *Wirtschaftsjahr*, 23.

²⁸ Schellenberger, *Zeitgemäße Vorschläge für die Düngung der landwirtschaftlichen Kulturpflanzen*, Arbeiten aus dem Gebiete der sächsischen Landwirtschaft 7 (Dresden, 1924), 17.

²⁹ Ernst Niggl, *Bedeutung und Anwendung der Kalkdüngung* (Berlin, 1923), 5.

³⁰ Paul Wagner, "Das Thomasmehl als Frühjahrsdünger," in *Unseren Freunden vom Thomasmehl*, ed. Verein der Thomasmehlerzeuger (Berlin, 1929), 3–6, here 4.

³¹ F. Merkenschlager, "Zeitkrise und die sogenannte 'Biologisch-dynamische Düngung,'" *Natur und Kultur. Monatsschrift für Naturwissenschaft und ihre Grenzgebiete* 30 (1933): 121–125, here 123.

³² H. Glathe, "Vorkommen und Tätigkeit von Mikroorganismen im Boden," in *Handbuch der landwirtschaftlichen Bakteriologie. Band II: Dünger- und Bodenbakteriologie*, 2nd rev. ed., eds. F. Löhnis et al. (Berlin, 1935), 159–629, here 182.

³³ Felix Löhnis, "Bodenbakterien und Bodenfruchtbarkeit," *Die Technik in der Landwirtschaft* 7 (1926): 247–251, here 247.

³⁴ Felix Löhnis, "Bodenbakterien und Bodenfruchtbarkeit," in *Vorträge gehalten anlässlich der sechsten sächsischen Landwirtschaftlichen Woche in Dresden vom 25.–29. Januar 1926 und des Vortragenkurses für praktische Landwirte in Leipzig vom 5.–7. Januar 1926*, Arbeiten aus dem Gebiete der sächsischen Landwirtschaft 14 (Dresden, 1926), 173–183, here 174.

³⁵ Löhnis, "Bodenbakterien," 251.

³⁶ Felix Löhnis, "Die Aufgaben der Biologie des Bodens," *Fortschritte der Landwirtschaft* 2 (1927): 241–242, here 242.

³⁷ Löhnis, "Bodenbakterien," 247; Felix Löhnis, "Untersuchungen über Wirkung und Wert des Wirtschaftsdüngers," *Fortschritte der Landwirtschaft* 3 (1928): 817–821, here 818.

³⁸ Löhnis, "Aufgaben," 242.

³⁹ Löhnis, "Bodenbakterien," 251.

⁴⁰ Bundesarchiv R 3602 no. 67, Niederschrift der 80. Sitzung über allgemeine Düngerangelegenheiten im Preußischen Landwirtschaftsministerium am 13. Mai 1931, 14; Niederschrift der 81. Sitzung über allgemeine Düngerangelegenheiten im Preußischen Landwirtschaftsministerium vom 13. Mai 1932, 23.

⁴¹ Bundesarchiv R 3602 no. 608, Director of the Biologische Reichsanstalt to the Reichsgesundheitsamt, January 10, 1935.

⁴² *Chemiker-Zeitung* 58 (1934): 245.

⁴³ O. Flieg, "Hände weg von unseren bewährten Düngemethoden!" *Die Umschau. Illustrierte Wochenschrift über die Fortschritte in Wissenschaft und Technik* 37 (1933): 713–715. Similar G. Schnelle, O. Nolte, "Über die sogenannte Reformbewegung für Umstellung der Volkskost," *Fortschritte der Landwirtschaft* 8 (1933): 220–223.

⁴⁴ Priebe, *Unvernunft*, 27.

⁴⁵ Flieg, "Hände weg," 715.

⁴⁶ K. Scharrer, "Die 'biologisch-dynamische' Düngung im Lichte der Agrikulturchemie," *Chemiker-Zeitung* 58 (1934): 245–247, 267–270, here 245.

⁴⁷ Flieg, "Hände weg," 715.

⁴⁸ Gerber et al., "Wissenssystem," 596.

⁴⁹ See Peter L. Galison, "Context and Constraints," in *Scientific Practice: Theories and Stories of Doing Physics*, ed. Jed Z. Buchwald (Chicago; London, 1995), 13–41.

⁵⁰ Paul Wagner, *Anwendung künstlicher Düngemittel*, Thaer-Bibliothek 100, 7th ed. (Berlin, 1920), 32.

⁵¹ Gustav Höppner, *Die Kunstdüngemittel und ihre Anwendung in der modernen Landwirtschaft*, Löbes Landwirtschaftliche Bibliothek, vol. 28/29 (Leipzig, 1911), 114.

⁵² Friedrich Hartmann, *Kalkfibel in Frage und Antwortstil* (Coburg, n.d. [1930]), 27.

⁵³ E.g. Arbeitsgemeinschaft der deutschen Stickstoff-Industrie für das landwirtschaftliche Beratungswesen, *Düngungsratschläge für den Bauernhof*, 2nd ed. (Berlin, 1937), 57.

⁵⁴ Höppner, *Kunstdüngemittel*, 107.

⁵⁵ Max Gerlach, *Langjährige Feldversuche über die Wirkung der Kalisalze auf Sandböden*, Landwirtschaftliche Lehrhefte 5 (Berlin, n.d. [1911]), 3.

⁵⁶ Johannes Schneider, "Düngung," in *Praktisches Handbuch der Landwirtschaft*, ed. Johannes Schneider (Reutlingen, 1924), 53–94, here 56.

⁵⁷ J. König, *Die Ermittlung des Düngerbedarfs des Bodens* (Berlin, 1929), 11–13.

⁵⁸ Hermann Stremme, *Grundzüge der praktischen Bodenkunde* (Berlin, 1926), 40.

⁵⁹ See Günter Jacobs and Theo Remmersmann, "Erst untersuchen, dann düngen," *Landwirtschaftliches Wochenblatt Westfalen-Lippe* 31 (July 31, 2003): 32–34.

⁶⁰ Günther Schilling, *Pflanzenernährung und Düngung* (Stuttgart, 2000), 294.

⁶¹ Ibid., 294, 299.

⁶² Eilhard Alfred Mitscherlich, *Ein Leitfaden zur Anwendung der künstlichen Düngemittel*, 2nd rev. ed. (Berlin, 1931), 11–14.

⁶³ Eilhard Alfred Mitscherlich, *Erkenntnisse bei der Pflanzendüngung. Ein Festvortrag zur Feier des 250jährigen Bestehens der Deutschen Akademie der Wissenschaften zu Berlin*, Deutsche Akademie der Wissenschaften zu Berlin, Vorträge und Schriften, issue 44 (Berlin, 1952), 7.

⁶⁴ Jacobs and Remmersmann, "Erst untersuchen," 32.

⁶⁵ For the recent interest in trust as a historical phenomenon, see Ute Frevert, ed., *Vertrauen. Historische Annäherungen* (Göttingen, 2003).

⁶⁶ For a telling illustration of this line of reasoning, see Ulrich Planck, "Die Landwirtschaft in der Industriegesellschaft und die Industrialisierung der Landwirtschaft," *Zeitschrift für Agrargeschichte und Agrarsoziologie* 33 (1985): 56–77.

⁶⁷ See Theo Remmersmann, "Der Computer hilft bei der Düngeplanung," *Landwirtschaftliches Wochenblatt Westfalen-Lippe* 4 (January 22, 2004): 28–30.

⁶⁸ W. Endres, "Maschinentechnische Hilfsmittel des Landwirts," in *Die Technik in der Landwirtschaft*, ed. F. Christoph (Berlin-Schmargendorf; Leipzig, 1926), 256–288, here 256.

⁶⁹ Hans Schlange-Schöningen, *Rationalwirtschaft und Nationalwirtschaft. Betrachtungen eines praktischen Landwirtes* (Berlin, 1927), 42.

⁷⁰ Thiede, *Chance*, 65.

⁷¹ Reiner Mohn, "Gesetzmäßigkeiten wirtschaftlichen Entscheidens und Handelns," in *Betriebslehre*, 7th ed., eds. Erwin Reisch, Gerhard Knecht and Julius Konrad (Stuttgart, 1995), 103–142.

⁷² John Seymour and Herbert Girardet, *Fern vom Garten Eden. Die Geschichte des Bodens. Kultivierung—Zerstörung—Rettung* (Frankfurt, 1985).

⁷³ Kuntze and Voss, *Statusbericht Düngung*, 1.

⁷⁴ Stehr, *Arbeit*, 218.

⁷⁵ Schmidt and Jasper, *Agrarwende*, 166.