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Jennifer D. Carlson

2014

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**UNRULY ENERGIES:  
PROVOCATIONS OF RENEWABLE ENERGY DEVELOPMENT  
IN A NORTHERN GERMAN VILLAGE**

**Committee:**

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Kathleen Stewart, Supervisor

---

Kamran Ali

---

Craig Campbell

---

John Hartigan

---

Werner Krauss

**UNRULY ENERGIES:  
PROVOCATIONS OF RENEWABLE ENERGY DEVELOPMENT  
IN A NORTHERN GERMAN VILLAGE**

**by**

**Jennifer D. Carlson, B.A., M.A.**

**Dissertation**

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## **Dedication**

For my family  
and especially my dogs

## Preface and Acknowledgements

This dissertation is an ethnographic study of everyday life amid renewable energy development in 21<sup>st</sup> century Germany. It details how people are living out Germany's *Energiewende*, or the transition from nuclear power to renewable energy sources. The community described here is simultaneously a zone of technoscientific innovation and a site for the reproduction of ordinary life. I decided to conduct ethnographic fieldwork here in 2007, and the majority of the data presented in this work was collected from October 2010 to November 2011. But this dissertation also builds upon observations that I made over ten years, including countless visits to and periods of residence in northern Germany between 2000 and 2004, a return trip in 2006 and pilot research in 2007. I first traveled to the area when I was 19 years old, when circumstances conspired to introduce me to Ostfriesland, an area of Germany that I would otherwise never have known existed, and to the East Frisian village that I refer to here as Dobbe. While this region be central to my later anthropological research, my ethnographic sense of it developed while I was making other plans. In order to situate my perspective on renewable energy development in Dobbe, then, it is necessary that I touch briefly upon my own relationship with this community, and extend my thanks to those people there and beyond who made this research possible.

The writing of this ethnography began years before I decided to become an anthropologist. When I first visited Germany I was an International Studies major concentrating on Europe, but I had learned French and Latin—not German—and I was

considering a career as a religious historian. I came to Ostfriesland not out of professional interest but because I considered certain people who lived there to be part of my family, as they considered me to be part of theirs. My relationship with Dobbe began on personal terms and continued as such for the better part of a decade. Between 2000 and 2003, I spent chunks of my spring, summer and winter breaks in Dobbe. After conducting historical research in Münster, Germany under the auspices a Fulbright grant, I resided in a Frisian village while I wrote up my research findings from the summer of 2003 to the spring of 2004. I developed a fledgling fluency in local dialects of East Frisian Low German, in addition to proficiency in standard German. Over the years, I inhabited Dobbe in numerous capacities: as a college kid coming home from school to visit her German mother for summer vacation or on the weekends; as an American learning German with only a set of textbooks, a dictionary, a stack of music CDs and ample conversation; as a tourist among mostly German tourists; as a stay-at-home writer; as a *Hausfrau*-in-training (virtually all women in Ostfriesland are housewives, even if they also work outside the home or otherwise pursue careers, as I did). During this time, I lived as a member of a German family and took part in traditional neighborhood rituals such as housewarming parties, tea circles, and funeral ceremonies. This experience introduced me to multiple generations of Frisian villagers. Over the years, I was a surrogate daughter, a neighbor and a friend to many in and around the village. I found acceptance in Dobbe because I had chosen at a very young age and with very limited resources to share in their life and, for a time, to make a home in the village with one of

their own. I was young, white, straight and American, which made my arrival in Dobbe far smoother than it would have been had I been otherwise.

Due to my own personal history in the region, my perspective on northern German lifeways was more informed by personal experience than it was by preexisting anthropological literature on the region where I ultimately worked. My perspective was shaped by my close and long-term observations of Dobbeners in intimate settings but also by my own aspirations to make a life within the parameters of what I perceived to be the community's norms. My former partner's mother, who is known in these pages as Elfriede Adler, initiated me into the practice of German housewifery and, in so doing, invited me into her spirit world, a phantasmagoria of capital desires, social anxieties and ordinary rituals that pervaded East Frisian domestic life. My early emotional experience in Dobbe was marked by an internal struggle between the immersive enjoyments of that practice and a lasting sense of shock and despair at the entrenchment of gender disparities that were far more overt than any I had previously known. This struggle led me to journal many of my experiences years before I began a formal practice of writing fieldnotes. As I embraced the possibility of writing my dissertation on Ostfriesland, these journal entries as well as my own memories and learned behaviors became vital archives for my research practice.

The circumstances under which I first arrived in Dobbe and subsequently made my life there would set many of the conditions for my future incorporation into the community "as an anthropologist" (Povinelli 1991:iii). My community of family and friends enthusiastically welcomed me back after I completed my master's degree at the

University of Chicago and began my doctoral study in Anthropology at the University of Texas. It was they who convinced me that I should base my dissertation fieldwork in Dobbe rather than in a village some miles away, which I had originally proposed in my dissertation prospectus. Among those whom I met after I began my dissertation fieldwork, my prior connections and my history in Dobbe nonetheless “placed” me, shaping how these new acquaintances related to me. This history closed some doors at the same time that it opened many others. In my capacity as an anthropologist I met many people whom I would not have met on other terms. As my community grew, so too did the challenges of managing the various social obligations that came with these new connections, as I struggled to ascertain where different groups of people overlapped, and how. As such, I gained a more nuanced perspective on the various social distinctions that shaped my previous experiences in Dobbe.

Through these new connections, I experienced many of the things that many anthropologists have recounted from their time in the field, feeling at times a “pet” foreigner, strategically included in some events and excluded from others. Some people expressed suspicion at my presence, and some narrated my arrival as a sign of providence, continually retelling my story as if it were their own. In some situations, I was afforded elite status or treated as an “honorary male” (Behar 1995:16). This positioning stemmed in part from my place of origin. Despite the contentious wars that my native country waged in Iraq and Afghanistan during much of my time abroad, the United States remained very popular in the rural communities of northern Germany. I



was also a native Texan, and Texas is an object of much fantasy and projection in Ostfriesland as elsewhere in Germany.

But I was also afforded special status because of my fledgling academic career, my university education and my personal background, which included several different pursuits more commonly discussed among East Frisian males, including agriculture and rural land management, but also artistic and leisure pursuits like comedy, science fiction genres, web design, and video gaming. Furthermore, after I had returned to the village as an anthropologist, my interlocutors were acutely aware that the things that transpired between us could potentially wind up in print, which almost certainly informed their (usually positive) attitude toward our conversations, if not the content of each conversation we had. Although they were hospitable toward me and enthused about my research, for example, many residents of the Dobbenerhammrich—an outlying area which I discuss in detail in Chapter 2—were ostensibly suspicious as to my work’s implications for the authority that they held over renewable energy development in the area. Across multiple settings, my history in Ostfriesland and my training and methods as an anthropologist continually informed one another in ways that were as productive as they were complicated and sometimes contradictory.

Many people in Ostfriesland and elsewhere in Germany helped to make this project possible. I am profoundly grateful to the following people for their patience, kindness, generosity, and support over the past fourteen years: Annegret Damm, Anneke Damm, Gerd Damm, Inga Damm, Ino Damm, Uwe Djuren, Doris Donker, Johann Donker, Anja Ennen, Alida Fokken, Ani Gastmann, Hermann Gastmann, Horst Janssen,

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Above all else, I wish to thank those East Frisians who appear in these pages. Their names and biographical data have been altered to preserve their confidentiality, and it saddens me greatly that I cannot thank them individually by name. It is a testament to the kindness and complexity of the Adler family and Elfriede in particular that I was able to remain a daughter and a sister to them well after my time in their family had come to an end. To the people of Dobbe, the Dobbenerhammrich and the surrounding areas of Ostfriesland who took me into their homes and their lives and allowed me to write about them in the pages that follow, I extend my uncountable thanks.

This project would not exist without the assistance I received from the Wenner-Gren Foundation for Anthropological Research, the Mellon Foundation and the Center for European Studies at Columbia University, and the Graduate School at The University of Texas. I am deeply grateful to these institutions for their generous support as I am for the original Fulbright grant that allowed me to live in Germany and share my life with the people of Ostfriesland.

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without the unwavering love and support of Collin Cannaday, with whom it is my joy and my privilege to share my life.

**UNRULY ENERGIES:  
PROVOCATIONS OF RENEWABLE ENERGY DEVELOPMENT  
IN A NORTHERN GERMAN VILLAGE**

Jennifer D. Carlson, Ph.D.

The University of Texas at Austin, 2014

Supervisor: Kathleen Stewart

This dissertation asks how inhabitants of a sustainable village are living out Germany's transition from nuclear to renewable energy. The sustainable village remains a locus of optimistic attachments for renewable energy advocates, who argue that a decentralized power grid will enable people to more directly participate in power production and politics as "energy citizens." Yet while rural areas have become sites of speculation, innovation and growth, few rural-dwellers are enfranchised in (or profiting from) the technoscientific projects in their midst. I draw upon 13 months of fieldwork in a northern German village transformed by wind turbines, photovoltaics and biofuels to consider why, asking what kinds of public life flourish in the absence of democratic engagement with renewable technologies.

This ethnography engages the village as multiply constituted across domains of everyday life, including transit, farming, waste management, domestic life, and social

gatherings. I found that environmental policy, everyday practices, and the area's material histories combined to produce ontologies—senses of what exists—that circumscribe citizen participation in the energy sector, affording more formal opportunities to men than to women, and privileging farmers' interests in plans that impacted the larger community. These findings illuminate how many villagers become ambivalent toward the project of the energy transition and disenfranchised from its implementation.

Yet many who were excluded from formal participation also engaged with renewable technologies as they sensed out their worlds, using tropes of sustainable energy and technoscientific materials to place themselves in this emerging energy polity. Their everyday worldmaking brimmed with what I call unruly energies, structures of feeling that registered more as affects than as discourse. In the village, these took form as sensory disturbances, disquiet among neighbors, technoscientific optimism and skepticism toward environmental policy. These affective modes of attention, investment and participation were vital aspects of public life that shaped the transition's unfolding. They exceeded liberal models of renewable energy citizenship, which presume that socioeconomic interest and environmental commitment are universal among citizens. In this way, unruly energies compel more nuanced attention to the multiple, contingent, site-specific ways in which citizenship takes form in the making of eco-capitalist energy infrastructure.



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## Introduction

### *Into the glasshouses*

If you didn't already know the Adler Nursery was closed, you might mistake it for a working plant nursery. The old growing houses sit on the western side of Dobbe, just to the right of the highway as you enter the village. Driving east into town on a summer afternoon on the two-lane blacktop, you'd find the morning's rain clouds had burned off to reveal the old nursery and the fields that surround it in a concert of colors: the gray of the growing houses next to a tractor garage of forest green metal and a red brick house behind the nursery itself, all part of the same compound. And beyond that, the green and yellow of rising cornfields, the ubiquitous red of the village houses, the dappled brown and green of the surrounding trees, capped by a crop of mammoth white wind turbines on the horizon, averaging a hundred meters tall. Like most of the buildings on this side of the village, the nursery was built during the height of the West German *Wirtschaftswunder* (the postwar "economic miracle") on land reclaimed after the Second World War. When you approach the village from the west, the nursery hangs in the foreground like a promise of all that's green and good and grown in Germany.

Driving up to the structure, however, you'd have trouble finding the way in. The old side gates are secured with rusted chains, and the only way onto the property is through the driveway beside the red brick house. If you parked and got out and found nobody at home, you might be tempted to walk into the growing houses yourself. The one closest to the house is alternately a workshop, a trash depot, a storage area and a

playground. On the right, tools rest on the walls and workbench according to some unknown order. To the left stand several bicycles and the municipally issued bins people use to sort their trash for disposal. Directly on the path into the rest of the growing houses sits an above ground swimming pool made of galvanized steel. And behind the pool, yellow trash bags hang from low rafters, full of cans, packaging and Styrofoam waiting to be brought to the curb for the trash collectors. Continuing past the first growing house there are eight more structures, each collapsing into its own form of apparent ruin, with chunks of glass and fiberglass missing from the ceiling and the walls, the old cement growing tables covered in dirt and weeds, irrigation hoses dangling from above, snaking down and around the old growing trays on the tables and the floor. If you kept going all the way to the tractor garage, you'd find a stockpile of tools and trash, piles of broken glass and old plastic growing trays awaiting new uses, coils of rope and industrial chain with hand-sized links. The sense of a ruined space is punctuated with the pops and creaks of random materials expanding in the warmth of the afternoon. The sounds, the sight of weeds and clover peeking out of the forgotten growing trays, and the inexplicable yet orderly piles of materials suggest that life continues on in multiple registers and timescales.

If you asked around in the village, people would tell you that the old nursery hasn't been open for more than fifteen years. They'd say that the old gardener Adler had died and that his widow sold the nursery and one half of the duplex to their apprentice, but then the apprentice turned out to be a junkie, a degenerate. He trashed the place, grew pot in the glasshouses (the villagers call them glasshouses, and they are indeed built

of glass), went to jail and filed for bankruptcy. The nursery stood empty and broken down until Volker and Regina Janssen bought the place four years later. Volker is a foreman at a nearby harbor authority; Regina used to work as a kindergarten assistant. They married and celebrated their wedding on one side of the tractor barn, with red paper hearts and streamers suspended above the concrete floors. Nowadays Volker works on the nursery when he gets home from the harbor, slowly converting the old structures into something else. Volker's a stand up guy, but nobody really knows what he's up to out there every day. "They've got money. They could make a fortune on that place if they'd just install solar panels on the roof of the glasshouses," people say. "Why not install solar panels? Otherwise, better to pay someone to haul it all off than waste your life away out there."

It is a time of profound transformation in the village as elsewhere in Germany, as many look to renewable energy technology as a nexus of optimism and future promise. Statements such as these point toward the imaginaries that proliferate in this space of expectation, and suggest that these imaginaries carry social freight such as the weight of judgment, to be levied upon those who react differently to the promises of technoscientific innovation. In the pages that follow, the Janssens and the people talking about them emerge alongside other citizens of Dobbe, lending flesh to everyday life in the midst of the *Energiewende* or "energy turn," Germany's unfolding energy transition.

## *Research objectives*

This dissertation explores how people in rural northern Germany are living out a national transition from nuclear to renewable energy technology that began in the final decades of the 20<sup>th</sup> century. The data presented here were collected during thirteen months of continuous ethnographic fieldwork from 2010 to 2011 in a village on the German North Sea coast, as well as during short- and long-term stays in the region over a ten-year period. The ensuing work depicts a community that has been transformed through introduction of wind turbines and solar panels and, most recently, the rise of biofuel production. In the midst of these changes, this work attends to the senses of place that solidify in, through and alongside renewable energy development projects, as well as to nascent imaginaries as to what the future holds and how things are or should be. It achieves this through close ethnographic attention to routine practices and everyday social situations that index expressive cultures and emergent social distinctions in village life. In describing them, the text asks how ordinary ontologies (senses of what exists) and imaginaries (which I take here to be extensions into or predications upon the world<sup>1</sup>) work as infrastructures for the making of everyday life and living out the energy transition.

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<sup>1</sup> My use of “imaginary” is not intended to denote a unified ethos, cultural model or cognitive schema as do Castoriadis, Anderson and Taylor’s respective uses of the term, which have greatly influenced anthropology and public culture studies (Strauss 2006). Instead, my use of imaginary is more aligned with that of Lauren Berlant, whose writing lends the impression that imaginaries are forms of fantasy, fabulation and understanding that are fashioned in ordinary situations, furnishing potential resources for action. These imaginings may take form through the actions of multiple actors—including different forms of life—in unfolding social situations, and they are no less material for having been fashioned (Berlant et al 2012:22).



The text considers how these practices enable certain kinds of investment and participation in renewable energy projects while potentially foreclosing other ways of taking part, or giving rise to unforeseen modes of engagement with the energy transition. In so doing, the dissertation illuminates why some people in the village capitalize on the renewable energy transition more than others do, and offers a number of provocations for making sense of the energy transition, its implications and its promises. The text also grapples with the question of what participation means, and how social scientific research may enfold the experience of those villagers who do not directly support or invest in renewable energy development, even as mainstream discourses of sustainable development depicts them as renewable energy citizens. What kinds of unexpected public life flourish in the space between representations of sustainable development and lived experience? Moreover, what becomes of forms of liveliness and sociality that cannot be commodified or monetized in Germany's emerging energy economy? How do these *unruly energies* disrupt or otherwise complicate popular narratives of sustainable development? To engage these questions, the dissertation narrates the energy transition according to the rhythms of everyday life and social interactions, which open onto the history of the region's development and the renewable energy projects unfolding around it. Incited by "social situations" (Goffman 1964), the text opens onto broader flows of capital and materials that converge in the village with repercussions for those who live there.

### *Locating Dobbe*

The community that I am calling Dobbe is a settlement of 2000 inhabitants located between the Ems River and the North Sea on Germany's East Frisian peninsula, in an area known colloquially and historically as Ostfriesland or East Frisia. The village itself was incorporated into the greater municipality of Wälder in the 1970s, and Wälder is part of the district of Aurich, considered by many to be the heart of Ostfriesland. Often depicted as a backwater or bucolic vacation spot, this rural region is a cosmopolitan zone where technical and technoscientific projects such as diking, canalization and land reclamation works have enabled and mediated the formation of diverse publics of people and things in the region over the past two millennia. Over the past 20 years, social life in Ostfriesland has been recombined anew through renewable energy development, which radically altering work opportunities in the region as well as its built environment, with repercussions for the ways in which people fashion their everyday lives and public participation.

I began this introduction with a description of the Adler Nursery because it provides a launch site for this ethnography in at least two ways. It was, as I note in Chapter 4, my own point of entry into Dobbe given my relationship with the Adler family, who remained in one of the adjacent duplex apartments long after the nursery had been sold. Beyond this, however, the Adler Nursery is a microcosm of the village where it is located. More accurately, it is a microcosm of the provocations I encountered while I was trying to make sense of everyday life in a community in the midst of the energy transition. Made possible in their current form by the economic miracle and land

reclamation works, both Dobbe and the Adler Nursery are far more complex than their initial appearances may suggest. While the nursery is now a staging area for tasks other than its originally intended purpose, people still call it the “nursery” (*Gärtnerei* or *Gewächshäuser*) or the “glasshouses” (*Glashäuser*). Its old destiny has ended, its new destiny is unknown, yet it is nonetheless operational, a site at and through which new forms of living and making do come into being. And it is also a locus of speculation and dreaming, a space through future possibilities are mapped and sensed out. Similarly, everyday life in Dobbe is an agglomeration of activities and energies that exceed conventional notions of what villages are, and what life in a sustainable village looks like (notions which I unpack below). In this text, I frame these forms of vitality as unruly energies. They may be quantifiable in watts or joules, like the heat and flame generated by Easter fires or rogue off-grid solar panels, in forms of power that could be connected to the grid; but they can also register as modes of dwelling in the world that diverge from commonplace expectations of the good life and its pursuits. For some villagers, for example, Volker’s daily dedication to his unending work in the glasshouses is an unnecessary labor, a useless form of being at work. It may also seem illogical to those elsewhere who espouse the necessity of solar panel installation as the path to a better future, a perspective shaped by the liberal politics of the late 20<sup>th</sup> and early 21<sup>st</sup> centuries. In this way, the term unruly energies also works as a general placeholder for those aspects of life in Dobbe that confound liberal expectations of how sustainable villages should take place, or how renewable energy citizenship should be performed. For all of the excesses and uncertainties within the community, though, Dobbe remains a village, a

*Dorf*, an object and a way of life<sup>2</sup> to which those in and around it are attached, and through which life is articulated. Both of these sites—the nursery and the village—are lit in the eyes of their beholders with the promise of capital gains through renewable energy development. As the dreams of the economic miracle, the reunification and now the energy transition flourish, founder or fall in on themselves, their detritus is recombined into new spaces of making to be potentially harnessed to unfolding development schemes.

The object of this work is not to render judgment on the success of the energy transition or its projects in forestalling disaster, achieving ecological balance or bringing citizens to some imagined form of the good life. Nor is it to speculate as to why or how optimism about renewable energy may be ebbing, or whether public opinion favors or opposes the energy transition. The ethnographic material I present here may shed light on such concerns, but the primary aim of this work is to examine how the project of the energy transition figures into local imaginaries and ontological formations at one site of its implementation. In other words, I seek to explore how people extend themselves into the world in relation to the current moment (imaginaries), and how the world is constituted for them in and through that moment (ontologies). Here the energy transition is an inciting event, a succession of lightning strikes that illuminate various aspects of being in common in a particular place. At various points in this text, the energy transition unresolves into a number of divergent projects, fades into the background, or hardens into a concrete thing, providing a frame or a set of incitements to consider how citizenship

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<sup>2</sup> According to the Grimms' 19<sup>th</sup> century German dictionary, the earliest form of the term *Dorf* was actually *sich Dorfen*, an infinitive that translates as "to gather."

inheres in everyday life. By writing through these social situations, I map the ontologies and imaginaries through which northern Germany's present political moment congeals, the cultural forms through which people locate themselves historically (Berlant 2008b) and find ways of being in common or coming apart in the midst of environmental governance and green capitalism.

### *Framing the Energiewende*

The German energy transition is an expansive, uncertain and mostly capitalist experiment through which resources such as wind, sun and biomass—long used as sources of energy in small-scale rural settings—are being recombined and reframed as commodities to be harvested, managed and distributed at emergent and increasing economies of scale. The term *Energiewende* was first coined in a 1980 policy paper that advocated a move to renewables in the wake of global events, particularly the oil crisis of 1973 and nuclear meltdown at Three Mile Island (Krause, Bossel and Müller-Reißmann 1980). In the ensuing decade, a majority coalition of Social Democrats and Green Party members instituted tariffs that required utility companies to purchase power from renewable energy sources at a percentage of the conventional price of electricity. The feed-in tariffs were particularly oriented to the promotion of wind power and, by the end of the 1990s, German wind turbines represented one-third of the global wind capacity of that decade. The wind boom led to speculation and construction at a frantic pace, with various parties protesting the lack of oversight in the siting of wind parks and other projects. Constructed in the mid-1990s, Dobbe's wind park is the product of one such

venture (for additional examples specific to Ostfriesland, see Puchert 2010). In the year 2000, Germany's preexisting renewable energy laws were reframed into what is now known as the *Erneuerbare Energien Gesetz* or the German Renewable Energy Law, hereafter referred to as the EEG. The EEG provided incentives for solar energy as well as wind power, paving the way for a national policy shift away from nuclear energy. While the 2004 election of a pro-fossil fuel Christian Democrat and Liberal coalition threw the future of the energy transition into doubt, the Fukushima disaster of 2011 moved conservative chancellor Angela Merkel to dramatically call for the shuttering of Germany's nuclear power plants, embracing the renewable energy technology from which her party had previously sought to distance itself. By 2012, Germany's solar capacity had risen to 25,000 megawatts (MW), the product of exponential growth in 2010 and 2011, when the grid added 7000 MW and 7500 MW of solar energy respectively (Brittlebank 2012). At present, the German government plans to shutter all 17 of Germany's nuclear power plants by 2022, and to raise its capacity for renewable energy use to eighty percent by 2050. Less publicized until recently is the fact that Germany is also in the midst of a turn to biomass that has produced a proliferation of biofuel processing plants as well as a rise in agricultural monocultures, primarily corn, intended for biofuel fermentation. Biofuels produced in Germany include biodiesel but also biogas, which can be used as a source of heat on its own or in combination with fossil fuels.<sup>3</sup>

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<sup>3</sup> The diverse means of producing and consuming biofuels testifies to the heterogeneity of renewable energy technologies, their articulation and application. In Germany, for

One productive way to think of the German energy transition is as a social project: an activity “of fixing and co-substantiating phenomena, aggregating disparate elements into a common form and purpose” (Povinelli 2013)—in this case, reducing the use of harmful power sources such as fossil fuels and nuclear energy. The energy transition is made up of initiatives oriented to reducing carbon emissions and the threat of nuclear disaster, ordered along unfolding and intertwining logics of environmental governance and green capitalism. By environmental governance, I mean the proliferation at regional, national, and supranational levels of legislation and ordinance oriented to the preservation of the environment under the threat of indeterminate risks. In Germany, for example, environmental governance reached a crescendo in the aftermath of Chernobyl with the establishment of a new federal ministry to oversee environmental and safety concerns; the implementation of market incentives for renewable energy development; and the writing of environmental protection into the *Grundgesetz*, Germany’s Basic Law or constitution. By green capitalism, I mean “forms of political economy that seek to appropriate the reproductive potential of biomaterials or to nurture and sustain such potential or both” (Reno 2011:389; see also Hayden 2003; Sunder Rajan 2006). One illustration of green capitalism lies in the work of Stefan Helmreich, who conducted ethnographic research on a fledgling center for marine biotechnology dedicated to using marine microbes as raw materials for various biotechnological and pharmaceutical uses. Helmreich found that cyanobacterial microbes in question became fetishes for those who sought to extract and use them. They were drawn to what they perceived to be the

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example, biogas is primarily produced from the wastes of agricultural feedstock, while in Great Britain, landfill gas is the primary material from which biogas is made.

biodiversity of these waters, waters in and through which value (or biovalue) inhered, and from which capital (or biocapital) could be carefully extracted, as long as pains were taken to preserve the ecological balance that allowed these life forms to thrive (Helmreich 2007, 2008a, 2008b). Biovalue is “generated wherever the generative and transformative productivity of living entities can be instrumentalized along lines which make them useful for human projects” (Waldby 2000:33, cited in Helmreich 2007:288). For Waldby as for Helmreich, biovalue inheres in the perception, objectification and maintenance of particular forms of liveliness. When they are commodified as biocapital, the interests of capital thus demand that the conditions that produce this liveliness be maintained. Under green capitalism as well as environmental governance, “the contingency of life” is “a source of threat, opportunity, danger and profit” (Anderson 2011:29; see also Gourevitch 2010) that can and must be simultaneously regulated and capitalized upon. In areas such as Germany, where ordoliberal economic philosophy gave rise to federal checks on markets in the interest of preserving public welfare, processes of environmental governance and green capitalism are intricately linked. Through these connections, emergent assignations of value to forms of life or liveliness can have swift and seismic repercussions for policymaking and economic development, as well as everyday life.

Implemented according to the preemptive logics of environmental governance and green capitalism, the energy transition recombines old terrains into “new lands” (Thrift 2012) where ownership and tenancy are distributed across a range of actors who, while not necessarily visible in a given space, are nonetheless present and (at least



potentially) profiting. Under the auspices of the transition, a host of technoscientific undertakings take form as projects unto themselves, from environmental audit cultures to wind turbine manufacture and siting, biofuel production facilities, photovoltaic installation and waste removal industries distributed across increasingly interpenetrating public and private sectors. Although their advocates might not explicitly acknowledge it, all of these projects rely more or less on liberal notions of selfhood and citizenship, in the sense that they are legitimated by and in some instances created through legislation predicated upon these concepts. All are more or less wedded to technological innovation as a means of remediating environmental degradation and forestalling manmade disaster and, by extension, of alleviating inequality and other social ills. In this way, such projects recombine and retrench an “energy-civilization premise” (Zachmann 2012:25) that has haunted much of Western development since the 19<sup>th</sup> century, namely the widely-held assumption that the development of energy technology will amount to the advancement of society. Such assumptions have given rise to projects with far-reaching social effects, transforming the built environment of rural spaces, throwing the price of electricity into flux, and making and breaking fortunes and forms of knowledge. As proponents of the energy transition aim to preserve particular forms of liveliness (namely the biosphere and its various components), this work of preservation produces and necessitates the maintenance of additional forms of liveliness, like electricity generated by wind and solar power or heat generated by biomass.

In the midst of such processes, the task falls to anthropology and related disciplines to explore how “affective life is imbricated in the working out of the

neoliberal problem of how to organize life according to the market” (Anderson 2011:40). Attending to the texture of everyday life, it becomes clear that dwelling itself offers numerous provocations for our understanding of energy citizenship. By taking them seriously, it is possible to achieve "a more detailed understanding of past and present energy societies" and "avoid an uncritical reproduction of energy-civilization premise" (Zachmann 2012:25). Of primary interest to my project are the forms of liveliness that cohere in ordinary settings that are physically copresent to renewable energy development projects at the same time that they are not explicitly oriented to them. Building upon recent scholarship that frames the everyday as a site of political feeling, citizenship and the formation of publics (Berlant 2007, 2008, 2010a; Cvetkovich 2007; Stewart 2007, 2012), this dissertation asks how the energy transition registers beyond the purview of expert cultures or interested parties, in everyday situations and the comings and goings of people who dwell alongside these various development projects but have little purchase on their implementation.

### *The energy transition in Dobbe*

In this work, the village of Dobbe and its environs delineates a field of relations from which the practice of everyday life and the emergence of situations can be observed. My choice of this community as an ethnographic object is the result of a confluence of factors, namely the fact that the proponents of the energy transition advocated the sustainable village as a model for healing the earth and empowering citizens, my personal experience in Dobbe at a time when renewable energy development had begun to unfold,

and the fact that people in Dobbe were attached to the figure of the village as an object through which they made their worlds and related to the broader social and geographical formations in which they were located.

In Dobbe, the energy transition first took shape in the form of wind turbine construction. Dobbe's first wind turbines were constructed in the mid-1990s. The park was expanded in 2009, and subsequently again in 2010 and 2012. For the first seven years of my acquaintance with the community, there was no sense that renewable energy development included anything but wind power. Wind power seemed a thing apart from the village even as the villagers lived in its midst, and its residents increasingly found work in the industries that grew along with it. But when I returned to the field in 2010 after a three-year absence, I was surprised to find that virtually every fourth house in Dobbe had installed solar panels. By the end of 2011, when I concluded my dissertation fieldwork, the village had been transformed anew with the widespread planting of corn for biofuel, and the construction of a biogas processing plant on the south side of town, one of several installed across the municipality of Walder (of which Dobbe was a part) in recent years.

A thumbnail sketch of the *Energiewende* as it has manifested in Dobbe can hardly do justice to the strange experience of seeing a landscape so vastly transformed in the span of a decade, and to the continual shifts in perspective that such an experience necessitates and brings forth. The first time that I saw Dobbe's wind park, for example, I was awed by its sheer scale and stark appearance. Having initially seen the wind turbines from afar, while driving along the Autobahn (at a time when there were far fewer

wind parks along the A31 than there are today), I was struck when they burst into view after I descended from the Autobahn exit bridge, rising above the trees that lined the road. I was taken aback by the sheer size of the mammoth white tubes and the rotor blades turning in a seemingly consistent breeze that I did not feel moments later when I arrived at my destination. (Later I would learn that it was likely that there was in fact no strong breeze that day—the turbines were equipped with mechanisms that kick in to maintain equilibrium, forcing the wheels to turn when the wind is irregular.) One could say that I was gripped by the shock and the promise of what one literary critic has called the “technoscientific sublime,” entailing “a sense of awe and dread in response to human technological projects that exceed the power of their human creators” (Csisery-Ronay 2011:7).

For those who have not witnessed the transition in Ostfriesland unfolding, a renewable Ostfriesland may seem a *fait accompli*, a model to be learned and emulated. When my partner Collin traveled from Austin to visit me in the field, for example, I witnessed his enthusiastic reaction to various projects around the village, taking in the solar panels, wind turbines, and biogas plant under construction. As we drove alongside newly-constructed neighborhoods across the wind park from Dobbe, Collin held his camera aloft in the car’s open windows, capturing all of the solar panels that glittered on the rooftops, then panning out to enframe the wind turbines on the horizon, rising above the cornfields yet to be harvested for biofuel production. He expressed his amazement at “how far ahead” Germany was of the United States in terms of sustainable living, presuming that the visible presence of renewable energy technology amounted to a

definitive rise in sustainable practice. Of Borneo's Meratus Mountains, Ana Tsing writes that "On this landscape, the economy of appearances seems so real that it must be true" (2005:73). In Ostfriesland too, the visual integration of wind turbines, solar panels and cornfields can merge with utopian sentiments to produce a sense of sustainable living that is as seamless as it is promising. As an affective force, the "truth" of these appearances is not in doubt, but their natural history is more complex than one might expect, built upon a concatenation of materials, of physical and metaphysical stuff that can simultaneously enfranchise and exclude. Before considering these, however, it is necessary to review how the energy transition is commonly narrated by those in its midst. In the next two sections, these narratives and the situations in which they unfold open onto popular representations of the energy transition, and the models of citizenship and society implied by the transition's proponents and skeptics.

### *Renewable energy and the promise of citizenship*

When I returned to Dobbe in 2010 after a three-year absence, my friend Karl was proud to show me the solar panels that he and his wife Angela had installed on half of their south-facing roof. They were subsidized by the state but there was talk in the media that the subsidies were set to end by 2012, so people around the village were rushing to install them while they could still afford it. When I had last visited Dobbe in the summer of 2007, solar panels were an outlier; now it seemed like every fourth house in the village had at least a few panels on its rooftops. One evening when Karl and I went to fetch a few bottles of Krombacher from the case in the utility room, just off their one-car garage,

he pointed proudly to the transformer mounted on the utility room wall. It was housed in a rounded plastic yellow casing with an LED display that ticked off the kilowatts that their solar panels were sending to the grid. Within twenty years, Karl explained, he would turn a profit on his energy bills that would make the investment worthwhile. In 2012, despite media reports that photovoltaics weren't all they were cracked up to be, Karl wrote to tell me that his south facing roof was now fully covered with solar panels.

I first met Karl and Angela in 2000 at a small Christmas gathering at their home. Back then they were engaged and living in Angela's hometown, in the smaller half of a duplex where her parents lived on the other side. As we whiled the night away with mutual friends over a game of Risk and a bottle of Jägermeister—I was the only woman who played along, perhaps an honorary male by virtue of being a foreigner and a university student—I learned that Angela was a dental hygienist and that Karl had just gotten a desk job at Energo, a multinational wind turbine manufacturer headquartered nearby. Energo produced the majority of the wind turbines that had been installed across northern Germany during the early days of the *Energiewende*, when the Bundestag instituted federal feed-in tariffs to promote wind energy.

After starting at Energo, Karl advanced steadily from administrative work into management. Two years after we met, with a mortgage and some help from their parents, he and Angela built a house a few miles away in Dobbe, his home village. Karl was adamant that their newborn son be raised in the place where he grew up. "If you stay away for too long, people treat you differently," he told me shortly after they moved in. In a community of 2000, a few kilometers of distance could keep you from going home

again. Karl and Angela's new house sat on land that was raised from lowland swamps in the 1970s, one of the final phases of the land reclamation works that also produced the land for the Adler Nursery. The area where they bought and built was developed from farmland into tract housing a few decades later. Like most neighborhoods built in Ostfriesland after the Second World War, the settlement is a suburban grid punctuated by whorls of pink- and gray-cobbled roundabouts that red brick houses circle around like spokes of a wheel, their small yards lined by hedgerows and cedar fencing. Situated on the north side of Dobbe, the neighborhood is surrounded by farmland that bursts with color in the spring and summer. Half a mile beyond Karl and Angela's house, the Ems-Jade Canal connects the Ems River to the Jade Bight and the old Prussian port of Wilhelmshaven, conducting freight and draining out the water that would otherwise flood those areas of Ostfriesland that remain below sea level. Fifteen miles north of the canal, a system of grassy earthen dikes rises to meet the North Sea, keeping its ever-rising tides and storm floods at bay. A long straight road runs south from the lower bank of the Ems-Jade Canal past Karl and Angela's neighborhood, the elementary school and the kindergarten before continuing into the heart of the village. In the mornings and evenings, the road is crammed with commuters, canines and caregivers as villagers walk their dogs and head off to work in nearby cities, teenagers head to the bus stop to travel to high school one town over, and parents escort children too young to ride the two blocks to school alone on a bike, scooter or waveboard. Looking out over the neighborhood to the east, south and west, the horizon above Dobbe's rooftops is lined with wind turbines. Their varied heights indicate their relative distance as their towers and rotors cast long

fingery shadows onto the farmland below. At night the southern sky is a constellation of red hazard lights blinking like pulsars from the tops of the towers, their rhythm now more dependable to steer by than stars or stormclouds. Just south of Dobbe, the Autobahn and railroad run parallel to the Ems River, connecting the village to the old Frisian port towns of Emden and Leer (where many Dobbeners now work) that served as a gateway to the region before the railroads and the Autobahn arrived. And beyond the fuzzy regional boundaries of Ostfriesland itself lie the rest of Germany and the easternmost tip of The Netherlands, once part of medieval Frisia Magna, the greater Frisian culture area that once spanned the North Sea coast from Holland to Denmark. By the time I returned to Ostfriesland for my dissertation fieldwork, wind turbines ran as far as the eye could see along the East Frisian peninsula, dominating the dikes between the Ems River and the North Sea. They ran farther still into the neighboring regions of Emsland and Ammerland, spanning the coasts of Frisia Magna and into the German interior, too.

In April of 2011, I made my way to Karl and Angela's house for Karl's 36th birthday party. Like most East Frisians,<sup>4</sup> they celebrated his birthday at home with their children and extended family over an afternoon of coffee, tea and cake, followed by an evening meal of sausage and potato salad. Between dessert and dinner, the children

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<sup>4</sup> The term "East Frisian" here is used to refer to residents of Ostfriesland, including those who were not born in the region. By contrast, those people named here as Frisians have identified themselves as descended from the ancient and medieval Frisian peoples that once occupied this area. There is a great deal of slippage between these two categories and no overt or tacit opposition between them as far as I know. Nonetheless, in this text, the distinction between the two helps point toward the differential backgrounds that constitute a village lived in common. Similarly, references to German media and culture are intended to denote cultural forms in circulation across Germany at large, if also in Ostfriesland.



played with their cousins around the house and yard, the men sat drinking beer in the parlor, and the women rinsed off the cups and cake plates and loaded them into the dishwasher in the kitchen. I moved back and forth between the three groups, clearing away stray flatware and napkins before settling in at the parlor table where Karl, his father and his two brothers were discussing the latest news out of Japan, where the Fukushima Daiichi power station was in a state of emergency after a catastrophic tsunami compromised the integrity of its nuclear reactors in the preceding month. Radiation had already been detected in Tokyo, roughly 150 miles away from the station. “We had that before, with Chernobyl,” said Karl’s father Heinz, referring to the cloud of nuclear radiation that spread from the Ukraine across northern Europe in the wake of the 1986 nuclear meltdown. “They said there was nothing, but we could tell that it was here. In Tokyo they say they have it under control, but that’s what they *have* to say. They can’t stop it.”

A few moments later, the conversation shifted to news of a biogas processing plant that would be installed on the south side of the village in the next few months. Financed by area farmers in collaboration with corporate sponsors, the plant would combine liquid manure and plant material to generate thermal energy. Based upon initial reports in the news, villagers presumed the energy would be used for public works, like heating the village elementary school. “Dobbe is now—at least theoretically—over one hundred percent renewable,” said Karl. “Now we are all farmers of energy.” His words were charged with the same enthusiasm with which he had shown me the solar transformer on the utility room wall. They indexed a vibe of pleasure and possibility, a

belief or at least a hope that all East Frisians may have a share in the profits to be reaped through ecocapitalist development.

Ostfriesland has only recently become a profitable place to live. Prone to devastating North Sea floods, its low-lying swamps and moors were slowly settled over a period of centuries by subsistence fishers and peat-cutters. With advances in dike building, the clearing of polders and land reclamation came the farms that provided labor to residents of the growing moor colonies. Those unable to find work left to seek their fortune elsewhere in Europe, or later in America. Karl's grandparents could recall when villagers' livelihoods were limited to farm labor and fishing and reed-cutting in the surrounding marshlands, and Karl's father worked as a farmhand before training to become an engineer at one of the industrial facilities that moved into the area in the mid-20th century. While the factories expanded work opportunities in the region, some areas of Ostfriesland reported unemployment rates as high as 20 percent into the 21<sup>st</sup> century. In addition, many continued to leave the area in search of middle class jobs, including civil service positions that were more readily available elsewhere. The continued brain drain from the region prompted some East Frisians to comment that they were the "Ossis" of West Germany, referring to the large population of East Germans left economically disadvantaged by the reunification and held by some in the former West to be less advanced than their western counterparts. But the rise of renewable energy technology and particularly wind energy has redrawn Ostfriesland's social map in less than a decade, offering new possibilities for labor and investment in the region. The changes are evident in Karl's own family, whose occupational aspirations have shifted

with the rise of renewables. Karl's elder brother, for example, completed school ten years before Karl did, and departed the region for a white-collar job an hour from Dobbe. He travels to visit his parents at least once a month, and often more frequently. Karl, on the other hand, was able to obtain his associate's degree and move directly into a position at Energo, shortly after the EEG provided additional incentives for wind energy development. His position at Energo allowed him to earn a near professional-level salary without leaving Ostfriesland. Ten years later, his younger brother trained to become a wind turbine technician for Energo and now lives in the same subdivision as Karl and Angela. Through these new forms of labor at various skill levels, Karl, his younger brother and others like them are part of an emergent regime of technoscientific production that is terraforming their hometown, not only through the construction of wind parks but also through population inflation.

In the midst of this process, Karl's statement that Dobbeners are now "farmers of energy" points toward an emergent concept of class citizenship couched in terms familiar to most East Frisians. In Ostfriesland, the word "farmer" (*Bauer* in High German and *Buur* in East Frisian Low German) carries the connotation of a power elite despite the fact that individual farmers' social status has historically depended on multiple factors, but most frequently on land ownership (Erickson 1969). (As I explain in greater detail in Chapter 3, not all East Frisian farmers are powerful farmers.) By positioning himself and other Dobbeners as farmers, Karl underscores their labor as citizens responsible for the cultivation of new crops under green capitalism. But his remarks also recall a concept of energy citizenship that has emerged over the past three decades of renewable energy

advocacy and development, both of which hinge on the figure of the sustainable village as a fulcrum of enfranchisement and social betterment.

It could be said that renewable energy initiatives and the new lands to which they give rise are the inheritance of a tradition of utopian thought that links technoscientific development, and particularly electrification, with societal improvement. With the decentralization of energy infrastructure in Europe, those who were previously known to expert cultures as energy consumers (or, in some literature, as “deficits”) are increasingly considered to be energy *citizens*, each of whom is expected to do their part to keep the grid afloat. Energy citizenship assumes energy to be a social right (*jus energieiae*, perhaps) that brings with it certain responsibilities. For planners and policymakers, the concept of the energy citizen implies a set of presumptions about the people and situations with which they are dealing, including the idea that denizens of decentralized energy generation schemes are generally more empowered than consumers of centrally-distributed energy, and that they are more likely to be motivated to help maintain the energy infrastructure of which they are a part (Barnett et al 2010; Devine-Wright 2007). The concept of energy citizenship works as an extension of late 20th century articulations of environmental citizenship, where members of the public bear a responsibility to ensure that their ecological footprint does not foreclose “the ability of others in present or future generations to pursue options important to them” (Dobson 2003, quoted in Devine-Wright 2007:71)—or, in other words, to ensure that their actions do not constrain the potential flourishing of others.

The figure of the sustainable village serves as a locus of optimistic attachments for planners, politicians, and other proponents of the energy transition in Germany. Such hopes are perhaps best articulated in the writing of the late Hermann Scheer, a chemist and Social Democratic Party member who spearheaded pro-wind legislation in the Bundestag during the 1990s. In his many publications in support of the *Energiewende* and solar power in particular, Scheer argues that the decentralization of the power grid would make “renewable energy available in an increasingly autonomous and democratically controllable manner” at the same time that it would reduce the risk of environmental disaster (2006:167). Scheer’s renewable Germany is a Hegelian dream of interlocking value syntheses where individual and communal values are aligned (because, Scheer assumes, the autonomous use of renewables expands individual freedoms without burdening others) and spiritual and material values are reconciled (as the material interests of humanity can be satisfied without damaging the earth). For Scheer, the democratization of energy infrastructure holds the promise of social enfranchisement, which citizens will freely choose: “Renewable resources will bring a new era of wealth-creating economic development, initiated not by bureaucratic fiat, but by the free choices of individuals” (2013:325).

Other proponents of this model see in the sustainable village the hope of flagging rural communities where postwar economic infrastructures are falling away, rendering villages vulnerable to suburbanization or abandonment. In one recent example, cultural ecologist Hansjörg Küster (2011) argues that failing villages can be rejuvenated through the redemptive potential of renewable energy, serving as sites of phytoremediation,

cleansing the earth of industrial pollutants. Küster's phytoremediation is a form of what Gösta Arvastson (2005) calls "zero-making": setting the clock back to zero in the wake of catastrophes and the mundane disappointments of life after modernity, a wishful catapult into revolutionary time that makes formerly alienated subjects into citizens. The pride and wonderment in Karl's voice thrummed with a similar sense of promise.

### *The vicissitudes of independence*

But are all East Frisians farmers of energy? Conventional narratives of energy development in Germany tend to gloss whole communities as participants in the energy transition, particularly because many of the wind parks across northern Germany are municipally owned, theoretically reaping more benefits than do privately-owned wind turbine installations. But my observations in the field suggest that renewable energy projects—including those that are framed as a public good—are not necessarily understood as a partnership to which residents have given consent, or a property in which they have a share. If the *Energiewende* is a utopian project, then its utopianism is the flip side of a "politics of fear" (Gourevitch 2010:422) that demands that subjects set aside the assessment of their actual social existence in order to survive in a "state of exception" (Agamben 2005) in order to preempt disaster and death. As noted above, the specter of nuclear meltdown at Chernobyl (and later Fukushima) amounted to the "affective fact" (Massumi 2010) of impending nuclear disaster in Germany, spurring a progression of pro-renewable (and mostly pro-wind) legislation in the German Bundestag. Meanwhile, still reeling from the oil crisis of 1973, agronomists and farmers considered biomass as a

means of moving away from German dependency on OPEC-owned fossil fuels. The logics of preemption that drove pro-renewable legislation and development in the Bundestag were multiple, whether oriented to preventing mitigating the risks of modern development or protecting the economic interests of late 20<sup>th</sup> century Germany. Regardless of their orientations, however, these processes were expedient even as they posed new challenges, many of which have yet to be overcome. In order to realize its renewable objectives, for example, Germany must build or upgrade around 8300 kilometers of transmission lines, while also decentralizing its grid to compensate for the fact that wind and solar power are intermittent sources of energy better suited to small-scale distribution systems, which square more with Scheer's model, but which would be less profitable for the large-scale energy concerns that have historically dominated the market.

As these challenges surface in the media and in everyday conversations, more pessimistic interpretations of the energy transition have come to the fore. Recent articles in domestic and international publications attest to the complications of adapting preexisting energy infrastructure to ensure that energy generated in remote locations can be delivered to more densely populated areas of Germany. Pundits decry the rise of *Energiearmut* or “energy poverty,” where individual consumers are burdened by rising energy prices that power companies attribute to the enormous cost of rearranging the grid. Some people protest the spread of corn and sugar beets, fearing the ecological and economic repercussions of biofuel monocultures for small-scale communities. Others express anxiety about the rising nitrate content of Germany's groundwater due to the use

of organic fertilizer in the farming of biofuel crops. In recent years, federal and state entities devoted to renewable energy development have been privatized, possibly portending the outsourcing of bureaucracy and research to multinational concerns. Such are the vicissitudes of environmental governance and the ecocapitalist paradigm with which it is inextricably connected. “One would assume that ecology and the *Energiewende* ... were natural allies,” wrote *Der Spiegel* in 2013. “But in reality, the two goals have been coming into greater and greater conflict.” But how does this conflict register in everyday life, if it registers at all?

At Karl’s birthday party, shortly after he noted that Dobbeners were becoming farmers of energy, he related a story that he’d heard from a coworker to those of us (men, aside from myself) seated around the table. Once upon a time, the story went, a rooster was crowing so loudly that a neighbor got his gun and shot it dead. The story was like countless others I had heard men tell around the village: a crooked moral tale that relished in a person doing something uncouth or *asozial* (anti-social) and getting away with it. Most of the men at the table chuckled at Karl’s sketch of a man whose ignorance, stupidity or *menefreghismo* was so great that he refused to go through official channels for airing his grievance against his neighbor for keeping the rooster, opting instead to simply shoot the rooster and be done with it. Karl said that everyone in the office had laughed at the story, too, until one of the women in the office spoke up, saying, “I find it wrong [*nicht okay*] that people can laugh so when an animal is killed in such a way.” When Karl told us what she’d said he shook his head in disgust and said, “Spoilsports



[*Spaßbremsen*]. These days it's all so 'ecologically correct' [*ökologisch korrekt*]." His voice darkened in annoyance.

I was not surprised that Karl grumbled about a woman spoiling a moment of fun at the workplace, nor that his objection was couched in terms of propriety. Such complaints were standard fare in northern Germany as they were in the United States, where I have often heard people complain about corporate workplaces and discourses of political correctness, particularly with women as the linchpin of criticism. What struck me was that Karl framed his coworker's remarks not as simple political correctness, but rather as a kind of *environmental* political correctness or social policing. Spoken within five minutes of each other and in virtually the same breath, then, Karl's remarks recalled both aspects of the technoscientific sublime, simultaneously mingling awe at the prospects for enfranchisement and profit through the transition ("farmers of energy") and dread at what environmental morality portended for his own autonomy as a speaking and feeling subject. The latter stops short of a protest against environmental governance per se, or of the energy transition, but it suggests that something is lost as increasingly complicated systems are implemented to protect the biosphere and the forms of value therein.

Another iteration of this theme can be found in contemporary East Frisian art. Consider *Die Segen der Unabhängigkeit* or, in English, *The Blessings of Independence*, a painting composed by Wolfgang Epple, a chemist who was born near Freiburg but now resides in the East Frisian city of Leer. Painted with oil and acrylics in 2009, this work depicts a village overtaken with renewable energy technology (fig. 1). The setting of the

painting is easily recognizable as the village of Critzum, which lies several miles south of Dobbe on the southern bank of the Ems. One of the last remnants of the Rheiderland, a territory submerged centuries ago when weakened dams yielded to North Sea tides, Critzum is a classical Frisian round village or *Runddorf*: its houses encircle a central mound on which a blocky brick church and cemetery are located.<sup>5</sup>



**Figure 1.** Wolfgang Epple, *Die Segen der Unabhängigkeit*, 2009, oil and acrylic on canvas, 90 x 90 cm. Ostfriesisches Landesmuseum, Emden. Reproduced with permission.

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<sup>5</sup> Such scenes are ubiquitous across Ostfriesland. For example, while Dobbe is not a *Runddorf* but a row colony arrayed along a band of sandy moraine, its square church tower sits at the highest point of town atop a distinctive mound, its cemetery sloping downhill on one side.

Epple's painting renders Critzum's church mount into a dystopian vision, composed in the mixed media of the *Energiewende*. While the Romanesque structure has no solar panels at the time of this writing (fig. 2), Epple converts its rooftop into a combined solar array and base for a wind turbine. The turbine itself is so tall that it stretches off the canvas like a fluorescent beanstalk. Behind it, more turbines crowd in as if the wind parks north of the Ems had spread to Critzum like shoots on a rhizome. Black clouds loom ominously over leafless winter lindens.



**Figure 2.** Romanesque church in Critzum, Germany, in February 2013. (Photograph by Arjo Vanderjagt, Groningen. Reproduced with permission from <http://www.flickr.com>.)

Meanwhile, smaller aspects of Epple's piece catch the viewer's eye at the level of the street in front of the church: red- and white-striped construction markers topped with yellowy reflectors; a white sign pointing west that reads "Construction site EWE,"

referring to the *Energieversorgung Weser-Ems AG*, Germany's fifth-largest energy provider; and an impromptu roadside shrine situated at the base of one of the linden trees between a construction marker and a sign, presumably in tribute to someone who was killed due to the increased traffic in the area.<sup>6</sup> The work conjures the dark side of zero-sum living, where all of modernity's chickens come home to roost in one fell swoop as the new economic miracle of the *Energiewende* mutates into a curse for those who live among its technologies and their impingements. The presence of EWE belies the assumption that communities on a decentralized grid will be increasingly autonomous, as the majority of energy infrastructure and collection technologies remain the provenance of multinational corporations. The encroaching black clouds also recall smoke from coal-fired power plants which, as many critics of the energy transition are quick to observe, are still necessary to maintain the grid's base load supply of energy at this time.

For some with whom I spoke, such changes were necessary sacrifices, required to maintain the status quo while keeping the forces of nuclear destruction at bay. “[Wind turbines] are hardly beautiful,” commented one Dobbener to me, “but better than a nuclear power plant.” For others, changes to the landscape were all in a day's work—the cost of doing business for farmers of energy. There was a sense that those who complained about the *Energiewende*'s effects were the same as those who called for the transition in the first place: bourgeois elites who pontificated about things that they didn't understand. As a farm worker in Dobbe once told me, “all the environmentally-friendly

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<sup>6</sup> Given the fact that roadside shrines are something of a rarity in Ostfriesland, Epple's inclusion of the roadside shrine may be best explained by his origins in a Catholic region of Germany where such shrines are more commonplace.

[*umweltfreundlich*] people called for alternative energy like biogas and wind power, but now they say that it too damages the environment. And if someone wants to install a windmill or a biogas processing plant, then they protest.” Environmental politics in general and renewable energy development in particular triggered random comments about the stupidity of modern Germany and its denizens, whose government—recall Heinz’s remarks about Chernobyl—is hardly forthcoming about the risks of the technoscientific development it promotes. Yet these statements rarely cohered into something like formal protest. And so while the media and various lobbies for and against various kinds of renewables may narrate the transition in terms of success, failure, and overt antagonisms, everyday life and local genres palpate these possibilities in different ways.

I found that Dobbeners’ attunements to the energy transition diverged from more commonly-depicted responses to renewable energy development in the global North and West: NIMBYism, overt support, outright protest, attendance at planning meetings, or a stated sense of responsibility to the earth. Instead, their sensibilities manifested in a range of practices, feelings, and expressions, knowing looks, jokes, or fabulations that wove the technoscientific materials of the energy transition into the mundane fabric of everyday life. What I found in talking to Dobbeners about the energy transition might register as a pervasive sense of ambivalence, if ambivalence stands for a lack of clear-cut adherence to categories of opinion delineated by models from elsewhere. Such ambivalence behooves anthropologists of energy to consider what this implies for our

understanding of the energy transition and the model of energy citizenship on which it is predicated.

As a planning model, renewable energy citizenship is both preemptive *and* optimistic, saving the world from nuclear disaster at the same time that it harnesses the abilities of a (human) species-being that is presumed to be endemically enthusiastic about this work of salvation, or at least open to enlightenment. In its universalizing assumptions, the ideal (or idyll) of the sustainable village duplicates the failures of liberal democratic models to account for shifting divides between citizens and special populations who are afforded limited rights for any number of reasons, whether because of foreign national status, health issues, or other categories deemed significant by the authority of the state or supranational convention (Chatterjee 2004). “Unyielding in its constructions of the individual and the social” (Ali 2011:S319), this model fails to recognize that differential entanglements in the material world produce differential engagements with that world. By framing participation as a matter of choice between equally positioned citizens and proscribing only certain forms of “products and actions” (Barnett et al 2012:39) as recognizable or acceptable modes of participation, such models place the burden of participation on the those considered (and expected) to be citizens. The implicit pressures of an imagined energy public, whether idealized as renewable energy partners or apprehended as NIMBYists, constrain “the desire and ability of publics themselves—either to engage within the formal mechanisms that are presently provided or to actively seek other, perhaps more meaningful ways of engaging around the development of renewable energy” (Barnett et al 2010:48). As Barnett and others note,

corporate and policy models for engaging energy publics presume that these publics manifest either direct assent or explicit opposition, with little allowance for awkward coexistence. Those who appear not to participate are often assumed to be choosing not to do so, choosing against society or otherwise choosing not to partake of rights that they most assuredly have, and making such choices for clearly defined reasons.<sup>7</sup> Such thinking evinces what Elizabeth Povinelli has called “the discursive power of the fantasy of the will and its volitions” (2011:7). In order to participate, the model presumes, people have to care, and “caring” seems anathema to the offhand ways in which many people engage the energy transition and its materials.

But what if these seemingly one-off behaviors actually constitute a form of attention and investment, if not a form of caring that adheres to conventional models of energy citizenship? British cultural geographers have posed similar questions in recent work on renewable energy development in the United Kingdom. Patrick Devine-Wright, for example, suggests that energy studies literature attend both to the social construction of energy practices and to what he calls the “psychological” dimension of behavior, or the “cognitive and affective” processes through which individual behavior takes form (Devine-Wright 2007:63). And Gordon Walker and Noel Cass (2007) draw upon perspectives in science studies and informatics to call for a more situated approach to the “socio-technical heterogeneity” of energy publics, attending to the different ways in which forms of renewable energy articulate in different settings; how different roles in

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<sup>7</sup> I am reminded of the time that an acquaintance in Germany once told me that homeless people didn’t have choose to live on the street since the government would give them housing and money and a better life than most students had, thanks to the Social Democrats who were then in power.

energy initiatives cluster, interrelate and interconnect; and which people seek or are able to take up roles in a given context. Similarly, the present work asks what a concept of energy citizenship that accounts for difference and complexity might look like, and how the anthropology of energy may draw fresh insight from a cultural landscape that is “rife with trash” (Webel 2010). Is it possible to “unorient” (Thrift 2011) social scientific analysis, suspending expectations of predetermined forms of participation in order to attend to creative (if also mundane) ways of inhabiting technoscientific worlds? As a way into this possibility, I offer the following anecdote, which I recorded during the first two months of my recent field stay in Dobbe.

### *The provocations of ambivalence*

Antje came to my door one afternoon as I was unpacking the big black suitcase that I’d been carting around Dobbe for six weeks. It was December of 2010 and I had finally found a place to live for the coming year: a little log cabin on the south side of the village, just across the highway from the wind park that dominated the area’s otherwise flat and featureless horizon. Since my first trip to the village in 2000, the wind park had nearly doubled in size. Since I’d returned to Ostfriesland to study Germany’s wind energy boom, this seemed as good a place as any for me to hang my hat. Antje and Hard lived next door. They were middle aged, with two of their three children out of high school and working factory jobs. All of their kids lived at home. They had moved to Dobbe several years before, forced to start over after the stock market cost them a large farmstead in a neighboring village. The property had been in Hard’s father’s family for



generations. Antje had grown up in Dobbe and Hard's mother had come from the outskirts of town, from the area known as the Dobbenerhammrich. Through these connections, they bought the remains of an old farmstead with a ramshackle housebarn on one side of it and went about building a house on the rest of the tract for their family.

My prefabricated log cabin sat across the driveway from Antje and Hard's house. The previous owner had installed the structure after the old housebarn became unlivable, the floors slowly bowing up to meet the walls as birds roosted in the attic. The prefab cabin's Lincoln log facade stuck out like a sore thumb compared to the red bricks of Antje and Hard's house and the old housebarn. "It looks like you live in Finland," Antje quipped. Quick to find the humor in things, she was particularly amused by the story I told her that afternoon of my attempt at living alongside a farming family on the north side of town. After my former landlords stalled on aspects of our rental agreement, I had moved out, explaining that I needed to be closer to the wind turbines anyway—"closer to the windmills," Antje replied, her eyes alight. When she learned that I had come to Ostfriesland to study renewable energy development, she slid some brochures across the table for me to peruse: mailers from a wind energy company offering rewards to potential shareholders. "Maybe one day we'll join in," she said.

On the afternoon that I spent in Antje's kitchen, the Fukushima disaster was still two months away and Angela Merkel's conservative coalition was yet to embrace the transition from nuclear to renewable energy that had been instituted by the Social Democrats and Greens a decade before. I had only just begun to make sense of the solar panels that had exploded across the village in the three years since my last visit. Antje

told me that her daughter had already had someone come out to make an estimate for installing solar panels on the old housebarn, but (unlike Karl) they weren't yet ready to commit. People said wind was where the money actually was. Dobbeners spoke of *Windenergie* and *Windkraft* rather than the *Energiewende*. Newspaper articles hailed wind power as the great promise of Ostfriesland. Many young East Frisians who might once have worked for Volkswagen or moved out of town to find work were now looking to energy companies for jobs as technicians or office workers. My discussion with Antje hummed with the excitement and promise of wind at the same time that it ranged into random domains of conversation between two people getting to know each other.

As the afternoon gilded walls tinged yellow from heavy smoking, Antje moved around her *Wohnküche*, a combined kitchen, dining and living area, sorting laundry and refilling the coffee pot. The living area was crammed with lush leather furniture that (I later observed) people never seemed to sit in because they gathered around the dining table at all hours of the day. As Antje worked at the kitchen counter, she described what it was like to live next to the wind park. She told me how the morning light would suddenly shift as the sun rose behind the tall towers. "I'd be doing laundry and the light in the window would go on and off when the shadow passed over. It goes like this—" Catching my eye from where she stood, she raised her left arm in a vertical line up from her shoulder only to abruptly slice her hand down in a semicircle from above her shoulder and down to her hip, and then back up and over again. As her hand sliced and circled, her lips almost pursed and her eyes lip up as she repeated a sound in sync with the gesture: "*VHOOM...VHOOM...VHOOM.*" Then she joined me back at the table with

dancing eyes. “I call it the *Diskoeffekt*,<sup>8</sup> and you think you’re having a stroke!” And then, with a laugh: “Maybe I should petition the government for damages.”

That night when I detailed the encounter in my field notes, I recalled other reports I had read about wind power in Germany, Europe and beyond: homeowners standing up against corporate wind parks, citizens on the lookout for damaging environmental impacts, women journaling their experiences with wind turbine syndrome, bird watchers and conservationists tracking avian populations in fear that the installations would harm local biodiversity. Since I was working on a technoscientific culture of a sort, I was on the lookout for controversies (Latour 2005) that might illuminate the social context of the energy transition. And so I earmarked the exchange with Antje with an eye to its future potential—what if she actually *did* petition the government for damages? Were there more people in Ostfriesland with stories like Antje’s? Had some already acted on their issues? I had hoped to track how the *Energiewende* registered in the sensorium of the

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<sup>8</sup> Wind industry specialists and planners would note that the official name for the phenomenon that Antje calls the “disco effect” (*Diskoeffekt*) is “shadow flicker”, or *Schattenwurf*. Although the two are often confused, the official definition of the disco effect is the sun’s glinting off the sometimes-reflective rotors of the wind turbine that transforms the turbine into a potentially blinding pulsar in the bright of day. Shadow flicker, on the other hand, refers to the alternating light and shadow that result from the angle of the sun in relation to wind turbines in motion. Phenomena like shadow flicker, the disco effect or the sound of rotors turning on the wind have been linked to a number of sensory disturbances in people living near wind parks, including insomnia, dizziness and tinnitus. The umbrella term for such afflictions is wind turbine syndrome, and it poses a variety of problems for planners and the people who live near wind parks. While the disco effect has been widely mitigated by the use of less reflective materials and finishes in turbine construction, shadow flicker continues to impact the siting of wind parks, figuring into the permit process in countries such as Germany, where shadows from wind turbines may only cover nearby homes for thirty minutes a day or less. These are the legal stipulations to which Antje was referring when she joked that she should petition the government for damages, although she gave no indication that she would actually do so.

village, and here was a great example of a sensory disturbance one step away from becoming a public conflict, a social drama waiting to happen.

Except for the fact that Antje never followed up with the government. In the year that followed, I never witnessed anyone in Ostfriesland actively protesting the development projects unfolding in their midst, nor did I witness displays of categorical support of the technologies unfolding in the village or of energy transition as a thing in itself (although many in the area had partnered with companies to install wind turbines and solar panels, and to cultivate crops for biofuel). However, as I describe below, I repeatedly found myself in moments similar to Antje's impersonation of the wind turbine: moments where people in Dobbe seized upon technoscientific materials and their sometimes uncanny attributes to fashion attitudes, craft jokes, or sense out the world. There were complaints about "ecological correctness." There were ugly feelings about who did and didn't get invited to investors' meetings. There were quiet moments where otherwise Internet-uninterested men came home from work and wordlessly checked the news at the *Wattenrat*, an online hub for conservationist criticism of the development projects unfolding around Ostfriesland. There were folk theories about how renewable energy worked, and whom it benefited. There were Nordic walkers who played hide and seek between the bases of the wind turbines, children who darted into the bio-corn test sites to steal ears of corn and the parents who rolled their eyes at them, the folks who jokingly hit the gas when they drove through the wind park because some of the turbines were made in China with toxic materials. And again and again, people imitated the sound of the turbines, the *VHOOM-VHOOM* of blades in the breeze. (Their imitation is

surprisingly accurate, at least in onomatopoeic terms: wind turbines aren't tinny like the rusty metal windmills I knew from Texas; they *whoosh* like an impatient BMW speeding down the Autobahn.) Everyday life in the village was rife with weird moments that hung in the air with nowhere to go, like a giant ball of twine to which people kept adding their unique sections of wire. These moments persisted in my imagination as open questions, strange social situations that resisted the narrative and analytical closure of a social drama or ritual process. They were like funky noise to the more ordered signal of renewable energy projects transmitted through newspaper articles and televised broadcasts.

Mainstream media coverage made the energy transition seem cut and dried and toothless, if not humorless, with a set cast of characters (farmers, technicians, corporate investors, energy companies, and “interested citizens”) that little resembled the Dobbeners that I knew. But in the village, I perceived that attunements to the energy transition welled up in everyday ways that might also be considered part of citizenship: “an ordinary space of activity that many people occupy without thinking much about it” (Berlant 2007:42). What pundits and observers would call the *Energiewende* cropped up in everyday life via random irruptions of seemingly disparate materials into the sensorium of everyday life, rather than from a seamless or conscious sense of the steady unfolding of sustainable living about which pundits might rhapsodize. Much of the material I present in subsequent chapters of this work stems from my and others’ experiences of incremental change marked at random intervals by fits and starts. There was little overt discussion or argumentation about the energy transition in everyday life,

and few people knew when the planning meetings for projects took place, let alone attended them. Yet they also knew “what was going on.”

As I learned during my time in Dobbe, sentiments that might seem ambivalent are not without form or teeth, and they too can shape how people come together (or not) around matters of concern. Per Isabelle Stengers, “To belong to a society is, in a way, to answer ‘yes’—but the ‘no’ of non-conformity is not the opposite of such an affirmative response” (2008:105). When people hold their tongues, whether intentionally or not, writes Jeannette Favret-Saada, “this too is a form of communication” (2012:442). Or, to invoke Teresa Brennan, “all affects, including even ‘flat affects,’ are material, physiological things” (2003:6). (Put in the terms mentioned above, all that exists is lively, even when only some kinds of liveliness attain biovalue.) Similarly, remarks that seem like throwaway comments--such as Antje's joke about petitioning the government, or Karl's comment about spoilsports—constitute forms of "phatic labor" (Elyachar 2010). They are movements that appear to go nowhere but which nonetheless pile up an assemblage of rhythms, objects and images across which movement can be translated or resources can potentially flow, snapping together to exert force in palpable ways.

Drawing upon recent work in anthropology (Anand 2011; Kockelman 2010; Larkin 2013), one could say that these are infrastructures, channels through which movement can be translated or resources can potentially flow. In a zone of “energopolitical” (Boyer 2014) development, they may work as infrastructures of literal power, pathways for the making and distribution of energy that are themselves in various and simultaneous states of development, decay and mutation. They provide the channels

through which things get done. They are continually (re)made at the same time that they exert material force, which I also gloss in this text as *infrastructural force*. The turn to infrastructure in anthropology allows me to consider how forms of performance and practice, which could be interpreted as metaphysical or discursive rather than physical and tactile, are also aspects of a built environment that act upon and shape the world. These forms work as constraints and enablements like any other feature of a given place, albeit in different ways than do wood, metal, cement and stone. As metaphysical aspects of life are recognized to have material dimensions and effects, so too are aspects of the physical environment coming unmoored as “shifting fields of materiality within which certain sensibilities and visibilities circulate and precipitate” (McCormack 2008:414). Meanwhile the spectral force of memories, fantasies or future projections is likewise a constitutive element of our experience of being in the world (McCormack 2010:642), offering infrastructural affordances and impingements. So too does Antje’s windmill impersonation, as does enactment of a communicative frame through which her windmill impersonation becomes humorous.

These actions may seem pointless, counterproductive or otherwise unruly to onlookers when the power or liveliness they produce fails to square with the forms of biovalue—and more specifically, of energy and power—most commonly associated with the energy transition and its promises, from electric current to citizen participation. What does it matter that Antje laughs at the wind turbines if she fails to lodge a complaint with the relevant authorities? But rather than framing these sentiments as outliers that indicate a lack of participation in Dobbe’s technopolitical affairs, this dissertation engages them

as novel forms of life and culture that are equally part of the landscape of a renewable Germany. Here energy is not limited to institutionalized forms of power like electricity or heat; it includes any number of animacies (Chen 2012) or forms of liveness, being at work that may gain traction in everyday life. For if, as recent scholarship suggests, we may consider infrastructure as a zone of citizenship (Anand 2011) and a space for the fashioning of citizens (Von Schnitzler 2013; see also Mukerji 2009:404), we may also consider how everyday life is constitutive of infrastructure and thus of citizenship. Energy citizenship inheres in the making of energy infrastructure—both those material forms that are commonly recognized by petrochemical/big energy states as infrastructure, but also in the making of affective zones, of archives of feeling and patterns of action in which feeling and feelingful potentialities reside.

### *Methods*

As mentioned in the preface to this work, this dissertation draws upon observations I made in Dobbe over a period of eleven years, ranging from 2000 to 2011. The context of my observations and my methodological approach to them shifted as I transitioned from visiting and living in Dobbe as a member of a local family to conducting formal ethnographic research there. While I kept an extensive journal for much of my time in Ostfriesland prior to beginning my doctoral study, I first employed formal ethnographic methods in the region during a pilot study for this project during the summer of 2007. During this pilot research, I used a mixture of participant observation and informal and semi-formal interviews, as well as supplemental archival research.



I resumed and expanded upon this approach when I conducted long-term fieldwork in Ostfriesland from October 2010 to November 2011, using participant observation, interviews and archival research as well as life history collection and venue-based, time-space sampling of public areas (Low 2000; Muhib 2001; Stueve et al 2001). In some cases, people offered their life histories to me over multiple conversations, which I incorporated into my corpus of field data. Additionally, after I returned to Texas, I maintained a correspondence with several of my informants and conducted regular archival research using online news websites, government web portals, and issue-oriented blogs. All of these materials have informed the present work.

My methodological approach also shifted in response to events that transpired in the field, such as my decision to focus my research on everyday life in Dobbe, rather than carrying out the more geographically multi-sited approach that I had originally proposed in my dissertation prospectus. This decision was informed by members of my community in Dobbe, who impressed upon me the importance of making use of my local connections in an area of Germany considered to be impenetrable to strangers. It was also a pragmatic choice given the difficulty of finding long-term accommodation for a single person where the majority of lodgings were oriented to German families on extended but ultimately short-term vacations: in this tight housing market, it literally took a village to find me a place to stay. But my decision to focus on Dobbe also stemmed from the fact that three things were unfolding there at the moment that I returned to Ostfriesland: the solar energy boom, the rise of biofuel technology (including the cultivation of fuel corn and the construction of a biogas processing plant), and the

expansion of the wind park. My original research plan had focused solely on wind energy as an ethnographic object, but upon my arrival in Dobbe I realized that the village itself would offer a way into the lived experience of a community headed toward carbon-neutral lifeways, where citizenship inhered not only in renewable technologies but also in the idiosyncratic ways these technologies and their publics took form in a particular place. This decision was ultimately a generative one because it allowed me to consider how people of a common place could be simultaneously uncommon and common to one another in the midst of social transformation and its promises, complicating the idea of the sustainable village that figures prominently into environmentalist discourse. An increased focus on one place made “present other elements from a wider cultural and historical field” (Stasch 2013:556).

My approach to data analysis in the field involved a synthesis of methods from grounded theory and content analysis, and as modeled by Agar (1996) and DeWalt and DeWalt (2002). Over the course of my field stay, I coded my field notes—which included descriptive field notes, interview transcripts, and other material collected through participant observation and archival research—with a combination of descriptive codes, which were etic categories that I developed during pilot research to reference theoretical and topical concepts, and pattern codes, which reflected emic categories that emerged from the data when I reviewed it for concepts, patterns and themes. In reviewing my fieldnotes as when conducting interviews and participant observation, I attended to expressions and tropes that referred to the energy transition and/or carried affective force in social situations. In this way, I became aware of the different ways in

which people made sense of mundane aspects of renewable energy development, environmental governance and green capitalism, as well as various forms of liveness or animacy that they registered in their midst.

Given the fact that I first solidified my methodological approach to this case in 2007, and because of major developments that took place at my field site and in German renewable energy policy during my long-term field stay, this dissertation focuses primarily on things that I observed in Dobbe between 2010 and 2011. Various events and scenes from everyday life work as a narrative engine for considering the various ways in which renewable energy development and related social projects take form, and the phenomena that thrum in their midst. The writing aims to render a sense of everyday life in Dobbe, and particularly of moments of rupture, strangeness, or otherwise sensuous immersion, offering readers a chance to “feel the lively something” (Webel 2010), the percepts from which concepts are fashioned (Deleuze and Guattari 1994; Muecke 2008).

#### *A note on language*

In Ostfriesland, standard German is spoken alongside an ecology of local dialects which are collectively referred to as *Plattdeutsch* or *Platt*, catch-all terms for East Frisian Low German. East Frisian Low German stems from near-extinct Frisian languages as well as from old West Germanic dialects and particularly Saxon German.<sup>9</sup> The term “low” refers not to social status of the dialect’s speakers, but rather to the physical terrain

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<sup>9</sup> Saxon German was a West Germanic language spoken in Hanseatic cities that would later be supplanted in official documents and discourse by the High German that was codified in the 16<sup>th</sup> century Luther Bible.

where it was originally spoken—Low German in low-lying areas, and High German or *Hochdeutsch* in more mountainous terrain. However, speakers of Low German were often implicitly considered to be less cultured or otherwise lower classed than were speakers of High German, which would ultimately be conflated with Hanoverian dialects of German at a time when Hanover was a regional power. Germany recognizes East Frisian Low German as a regional language under the European Charter for Regional or Minority Languages, an agreement that was first adopted by the Council of Europe in 1992. Given the ways in which East Frisian Low German is historically situated and used in practice, it is difficult to say whether it qualifies as a separate language or as one dialect among many dialects of *Platt* derived from Saxon German. Perhaps a more appropriate term for East Frisian Low German is the standard German word *Mundart*, which means “dialect,” “idiom” or “vernacular,” but which more literally translates as “mouth manner” or “mouth mode,” a phrase that resonates with Low German’s endurance in oral rather than written expression. At any rate, many of the situations described in this work unfolded in Low German or a mixture of Low and High German. I note this in the text where relevant but, regrettably, a more extensive examination of the relationship between dialect usage, speech practice, public feelings and social distinction in East Frisian communities is beyond the scope of this work.

### *Chapter breakdown*

In the chapters that follow, and from a variety of angles, I seek to lay a foundation for considering where energy citizenship begins and ends, how this distinction shifts from

context to context, and the repercussions this distinction has in the lives of the people to whom we might apply it. Chapter 1 (“The Village Multiple”) offers a more in-depth description of Dobbe and sets the scene of the ensuing ethnography. It depicts how the village of Dobbe threw itself together for me after I began my ethnographic fieldwork, and how I in turn engaged the village as a knot in a meshwork of flows, with sites emerging through refrains and aesthetic sensibilities. Chapter 2 (“Natural Histories of Power”) uses Walter Benjamin’s concept of natural history as an opening onto social relations that were “naturalized” through transformations to Dobbe’s built environment since the mid-20<sup>th</sup> century, with repercussions for energy citizenship. Through these transformations, particular ontologies of place have sedimented that shaped how people related to renewable energy development projects. To hone in on this phenomenon, I focus on the social construction of one location, the Dobbenerhammrich or “hammrich,” an area on the outskirts of the village where the majority of its renewable energy development is taking place. The mundane distinctions that people made between “hammrichers” and “villagers” correlate to modes of participation in the village, and can lead to ugly feelings between Dobbeners. In Chapter 3 (“Waste Worlds”), I use waste as a way of approaching energy citizenship through various waste management practices that take place around the village from trash sorting to biomass. Waste offers a way for considering how different people are pulled into zero-sum living and specific aspects of the energy transition without necessarily supporting or opposing it. I consider how different kinds of waste are turned into different kinds of commodities, and what this portends for the incorporation of biofuel in communities like Dobbe. Chapter 4

(“Capacitating Women”) explores how various aspects of the energy transition and its imaginaries converge at one particular site: the figure of the middle-aged woman, as lived and observed through women’s lives in Dobbe. Through stories of everyday situations, I explore how women constitute renewable energy projects at the same time that they are constituted by them. These stories touch upon the kinds of participation in the energy transition that are and aren’t available to women in rural areas like Ostfriesland; moreover, they demonstrate how the energy transition figures into imaginaries of the “good life,” or perhaps more accurately in a time of neoliberal optimization, the better life. A brief conclusion recapitulates my findings and their scholarly implications, and posits possible avenues of future research.

#### *Relevant literature and contributions*

This study explores life at the juncture of late liberal politics<sup>10</sup> and technoscientific development, focusing on their convergence at one site of sustainable development, a northern German village. This work intervenes in political and environmental anthropology—and the anthropology of science and technology—by foregrounding mundane aspects of everyday life among non-practitioners (those not directly involved in technoscientific industries in their midst) as a site of citizenship and, by extension, the making of citizens. Because of its geographical and figural location at the heart of a national (and supranational) social project, this study also yields insight into life in a rural area of Germany that has been underrepresented in anthropological

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<sup>10</sup> For more extensive discussion of the periodization known as late liberalism and its use in contemporary anthropology, see Povinelli 2011, 2013.

research. The text also offers methodological considerations for ethnographic practice and writing.

Here environmental concerns and political processes converge in energy development projects, an established area of anthropological inquiry (Nader 2010; White 1943) that is burgeoning anew with the retrenchment of petrochemical markets and the rise of renewables. Over the past decade, two approaches have become particularly salient in the ethnography of energy. The first uses the concept of landscape to unpack how sites of energy development are made through the continual interplay of materials, interests and perspectives across a range of actors, including nonhumans as well as humans (Nadaï and van der Horst 2010). This literature is informed by work in cultural geography that decenters the widely held understanding of landscape as something produced through representation (Simmel 2007), turning instead to the constitution of landscapes as a cultural and material process that is deeply situated in particular places (Hinchcliffe 2010; Olwig 1996; Rose and Wylie 2006). Per Alain Nadaï and Dan van Horst, “Landscape as notion, phenomenon and materiality is a located and situated reality” that “contrasts with a recurrent tendency to centralize and industrialize energies ... to make them ‘Energy’, a homogeneous commodity that is more easily traded and transferred” (2010:149). Oriented primarily (but not exclusively) to renewables, this work engages the representation and valuation of wind energy landscapes (Pasqualetti 2001; Selman 2010); the emergence of biofuel landscapes with the cultivation of crops for biomass (Van der Horst and Evans 2010); the connection between landscape, ownership and political controversy (Dracklé and Krauss 2010; Pasqualetti 2001); collaborations

between planners, bird watchers, and birds in the siting of wind parks (Nadaï and Labussière 2010); and contestations between preexisting water policy and the interests of hydropower (Frolova 2010). As I discuss more extensively in Chapter 1, my portrayal of the village is informed by this approach, and by the broader scholarly turn to the material-semiotics of place, of which this literature is a part.

A second approach foregrounds Foucauldian concepts of governmentality, exploring the “intersection of energetic forces and fuels with projects of governance and self-governance” (Boyer 2014). These interventions explore how politics and the reproduction of life unfurl through the articulation, actualization and administration of energy at a variety of scales. Within this frame, Dominic Boyer has coined the terms “energopolitics” and “energopower” (2011; 2014; see also Szeman 2014) as a synthesis of Foucault’s biopolitics (where the administration of life is the object of politics) and Timothy Mitchell’s (2009, 2011) argument that forms of energy and forms of governance are inextricably connected. This conceptual framework allows for energy to be factored explicitly into analyses of governance and subjectivity, at a time when human energy consumption has attained the impact of a geological force (Chakrabarty 2009; see also Morton 2010). This emerging literature, much of which was newly published at the time of this writing, explores the biopolitical dimensions of fossil fuels as well as renewable energy development, including topics such as waste treatment and biofuel production in Great Britain (Alexander and Reno 2014); the development of experimental, energy based currencies (Günel 2014); the negotiation of competing forms of desire, environmental knowledge and “ecoauthority” (Howe 2011, 2014); climate change and



the production of new objects of biopolitical concern (Knox 2014); and collaborations between government officials and the petrochemical industry in matters of state (Coronil 2011) as well as and the promotion of cultural and social projects (Rogers 2011, 2014). The present work also engages the intersection of governance and energy, and adds to this literature in its orientation to unforeseen or unacknowledged forms of public participation that arise at particular sites of renewable energy development. By placing the concept of energy citizenship from policy and planning (Devine-Wright 2007; Walker and Cass 2007) in dialogue with theories of citizenship from public culture studies (Berlant 2007), I am able to conceive of everyday life as a space where projects of governance articulate alongside and through the mundane but materially agentic ways in which people make their lives.

In the anthropology of energy, then, this work pushes the question of who counts as a “subject” of energy studies, and how citizenship forms in and around energy development. In these pages, citizenship inheres in everyday situations that are removed from the conference rooms (or beer halls) where planning decisions are made or protests are organized, compelling new consideration of heretofore overlooked aspects of energopolitical existence. In this way, rather than studying “up” or “down,” this dissertation offers a sideways (cf. Zhan 2014) view to everyday practices which, while not explicitly connected with the energy transition, are nonetheless infrastructures of its unfolding. It also considers how particular notions of liveness and vitality are implied in notions of energy and energy citizenship, and the relationship between these concepts of energy and the enchantments of the market. In the broader study of liberal and late

liberal politics through which energy development is elaborated, this work adds to a growing literature that considers everyday experience and ordinary life as a “resource for action” (Berlant 2009, quoted in Stewart 2012) even as ordinary actions do not square with conventionally-recognized forms of public participation or political action (Berlant 2008a, 2011b; Cvetkovich 2007; Povinelli 2011, 2013; Stewart 2007, 2010). It considers how affects, including “negative” affects like apathy or other “ugly feelings” (Ngai 2005), are constitutive of publics, sensory socialities that order existence and disorder liberal understandings of human promise.

In describing ongoing practices of social distinction that take place at one site of renewable energy development and the material effects they have on those who live there, this work challenges implicit assumptions that the decentralization of the German energy grid will facilitate greater autonomy and enfranchisement among rural-dwellers, even as it also considers how these assumptions carry value for those entangled in the living out of energy development. In the anthropology of technoscience, this work moves the question of how so-called “traditional” communities may become infrastructures of technoscientific development, and the implications that technoscientific projects have for the constitution of selves in everyday life.

In the anthropology of Germany, this work offers a view to a region that is more or less unknown to North American scholars. Bounded by the Dutch border as well as the North Sea, Ostfriesland is located on the literal as well as the figural margins of Germany, a space apart from areas more commonly associated with the German nation-state: urban landscapes like Berlin, Leipzig, Hamburg, Frankfurt or Munich (to name a

few), or the rolling hills of the rural interior. At the same time that it complicates narratives of how the energy transition works, life in Ostfriesland also spills out of the cracks in the representational frameworks through which social scientists make sense of Germany, compelling the reevaluation of these frameworks, and the realization they they too are contingent and constructed. This work seizes onto the notion of Ostfriesland as a “marginal” (Tsing 1994) space in order to consider how the forms of life that flourish and founder here lend texture and nuance to anthropological understanding of Germany as a polity and a culture area, with additional repercussions for the anthropology of Europe and the European Union. Although the European Union and its institutions are not foregrounded here, the lifeways described here are at the center of current European political debates on agricultural subsidies and reform, sustainable development and environmental legislation (Dracklé 2005; Heatherington 2012a, 2012b; Krauss 2001; Krauss and Dracklé 2012). The forms of life and experience documented here offer insight into the affective and otherwise cultural dynamics that underlie assent, dissent and apathy toward supranational environmental governance and green capitalism in rural regions.

Methodologically speaking, this work attends to the rhythms and movements that compose places, recasting the German village as a “parliament of things” (Latour 1993) in motion. It examines how a village is continually composed at the same time that it is haunted by specters of the past and future. Through ethnographic writing, this work endeavors to populate the energy grid with unexpected forms of life, moving the question of how these vitalities make up the infrastructure of a sustainable village. The writing of

this work and more specifically the “voice” of the text shifts registers as it moves across multiple levels of abstraction, offering a provocation and an open question as to how to incorporate minute ethnographic detail of social situations with an analysis of projects and phenomena that intersect and unfold across a multiplicity of social scenes.

## Chapter 1: Making the Village Multiple

### *A sense of (taking) place*

In these pages, the village of Dobbe is both a setting and a narrative device. A perpetual motion machine, it is frozen in these pages and yet propelled by the movements that I pull out and trace, reanimating them for closer study. As such, individual villagers come into sharper focus, as do institutions such as the German Bundestag, Lower Saxon authorities, and various branches of the European Union. But the village is not only a narrative device; it was and is also a field of multiple, constantly arriving and escaping movements and energies, of which this work offers only partial views. In this short chapter, I attempt to render a sense of the village as a live and lived composition, and to unpack the strategies I used to isolate aspects of its onrushing present into sites of data collection and analysis.

In what follows, I describe the setting of this research and relate the strategies I used to make sense of social life in a village that is often considered a traditional community at the same time that is continually re-constituted, a composition that enfolds all that moves through it, continually open to improvisation. By “setting” I mean not the physical setting—although I do touch upon this at various moments here and elsewhere in the text—but rather the affective setting, the array of sensory provocations that I encountered as I began formal fieldwork and reflected upon my own prior experience at my field site. I also explain how, drawing upon work in philosophy and cultural geography as well as anthropology, I constructed a framework that allowed me to

approach the village of Dobbe as a knot in a meshwork of movements and intensities, images and speeds, some of which became valuable sites of data collection. Finally, I look to one particular activity to demonstrate how this method enables me to identify communicative frames through which perspectives and attunements form in everyday life.

### *Specters of the rural German village*

Delving into northern German village life posed a challenge, not only because it compelled me to negotiate and theorize the various interpersonal uncertainties and conflicts that sprang up over the course of my research, but also because it required me to think critically about the assumed or implied narratives of “how villages are” that saturated most of the literature I read and the comments people made about my prospective research site.

Reading Anglophone work on Germany, I found that I gleaned as much from what anthropologists didn't say as from what they did. The majority of this research bypasses rural areas to focus on urban-based technologies of self-formation and sovereignty, particularly in Berlin (Borneman 1991; Boyer 2005; Glaeser 1999; Kraemer 2012; Mandel 2008). The literature generally foregrounds one of two populations: citizens of the former East Germany grappling with persistent social and economic inequality (Bach 2002; Berdahl 1999a, 1999b, 2005; Borneman 1991, 1992; Boyer 2005; Buechler and Buechler 2002; Davidson 2007; Glaeser 2000; Jancius 2006; Rudd 2006), and Turkish immigrants living in urban areas (Ehrkamp and Leitner 2003; Faist 1993;

Friedrichs 1998; Glick Schiller et al 2005; Mandel 2008; White 1997). Aside from a few exceptions (Krauss 2005, 2010), studies of village life (Eidson 1993, 2005) tend to focus on historical memory, with no literature that accounts for the ways in which rural areas serve as nodes of production for national, supranational and multinational projects.

Reviewing this literature, I continually received the impression that the metropole was where history was made, while the margins like Ostfriesland were where it was registered or remembered. To borrow Povinelli's (2006) parlance, in the absence of more extensive ethnographic treatment, rural areas seemed like spaces of genealogically-ordered existence, always looking to the past or tradition of some kind, while urban areas like the ones in the ethnographies I read were autological zones—spaces of individual agency that need not appeal to the past for legitimacy.

If anthropological literature had little to say about village life in present-day Germany, many of the people in Germany with whom I discussed the project were quite forthcoming on the subject of villages in general, and East Frisian villages in particular. Friends from the city offered condolences for the time I would have to spend in “boring” Ostfriesland. “Boah, you’re going to the sticks [*in die tiefste Provinz*]!” exclaimed a farmer-in-training from Emsland that I met on a train traveling north from Osnabrück. Rural and urban-dwellers alike took pleasure in underscoring the deprivation of Ostfriesland, their landscapes full of *Landeier* or “land eggs,” people who never leave the province of their birth. (“Rednecks!” an East Frisian friend once translated, laughing.) East Frisians have been the butt of jokes across Germany since the early 1970s when, the story goes, an exchange of insults between teenagers from Ostfriesland and the nearby

city of Oldenburg resulted in the spread of one particularly successful joke: “Why do East Frisians have one long leg and one short leg?” “Because they always walk along the dike.” And so the *Ostfriesenwitz*—the “East Frisian joke”—was born, provincializing anew the mostly rural region where many Germans spent their holidays (Wendt 2009; see also Goldstein 1976). The figure of the East Frisian land egg and the jokes told at his (or her, but usually his) expense quickly moved to the commodity level with the rise of Otto Waalkes, an Emden-born comedian who starred in a series of films as a version of himself who was clueless, kindhearted, and always East Frisian. Today, East Frisian joke books are prominently displayed in the “regional” section of bookstores in the East Frisian cities of Emden, Leer, Norden and Aurich, right next to Ostfriesland-themed travel guides, cookbooks, and detective novels. Such images—combined with the marketing of East Frisian-themed knick-knacks and goods (such as the tea that people along the North Sea coast have historically consumed) to tourists and residents alike—offer a frame through which many Germans make sense of East Frisians and their communities. East Frisian kitsch is like the mass marketization of the genealogical subject, where heritage takes form in a plush “Ottifant” (a stuffed toy sold at Otto Waalkes’s Emden museum) or a cluster of sugar crystals wrapped in cellophane with a blue ribbon and sold at a tourist trap.

There was also a more sober historical sensibility that swirled among Ostfriesland’s inhabitants, and particularly those villagers who were middle aged or older. “We were once very poor,” several octogenarians volunteered to me. “There was no work; the bridges, the land, everything was covered with Canadians after the war.”



The war itself, people informed me, had never quite made it to Dobbe, although one fighter pilot was shot down somewhere south of the village, where he crashed in the swamps. When I moved next door to her house, Antje fetched her history books from the shelves—gifts from her children—and read some of the folk tales in them aloud for me to hear. The tales from the past were like ghost stories, postcards from a place where people Antje once knew did things differently. Many of these history books—which I also found next to the crime novels and cookbooks in area bookstores—were written or published with the sponsorship of the Ostfriesische Landschaft, an official entity of the state of Lower Saxony responsible for the preservation of East Frisian patrimony through cultural programming and archival efforts.<sup>11</sup> The books were often written about particular villages, or they contained ethnographic minutiae from many communities, indexed according to their respective villages of origin. In short, history was what East Frisians reached for when they heard I was studying Ostfriesland; it was, after all, a heritage zone. The specter of Canadians on the bridges and Antje's readings were a space where genealogy attained recognition, as culture became patrimony through chronicles of the war, occupation, and village life.

Soon it was impossible for me to drive down the road without imagining the things that I had been told about that happened in particular places: the Canadians on the

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<sup>11</sup> The Ostfriesische Landschaft and the building in which it is housed are remnants of the old system of *Landschaften*, ducal administrative entities that existed in Lower Saxony from the early days of Hanoverian rule. Today, in addition to running the Landesbibliothek where I conducted archival research for this project, the Landschaft is primarily focused on the codification of East Frisian Low German as well as the maintenance of the language through workshops, courses, and the publication of educational materials.

bridges; the old apple orchard, chopped down during the *Wirtschaftswunder*; the old stock tanks that were drained during the land reclamation; the geese that used to wander along the village common; the boy who accidentally drove into a canal and shot himself a few months later in the '70s. Images from Dobbe's history pressed in on my perception, continually enticing me to draw connections between what I saw before me and what had come before: the shift from windmills to wind turbines, the move from the village common to the village wind park; gruesome pictures from morality tales people told about driving carefully (lest you wreck your life). As specters materialized before my eyes, I came to understand that if the energy transition was giving rise to new lands, these lands have not necessarily supplanted their predecessors as much as they have recombined them, fashioning new terrains from prior lands and lifeways that may also persist in parallel to these new terrains.<sup>12</sup> The figure of the village is one such land. Its newfound status as a sustainable village recombines prior constellations of village life—including laws, traffic patterns, power lines, rooftops, cattle pastures, civic initiatives, public houses, and trash collection—into possible furrows for planting, sites for the cultivation of renewable energy and the publics that make it possible.

But even as Dobbe is increasingly known for its renewable development, it is also lived out in other ways that exert more sustained engagement and attention among its inhabitants than do the energy technologies themselves. Perhaps the most easily

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<sup>12</sup> The concept of recombination as I deploy it in this text is informed by Michael Fischer's (2009) use of the concept in his essay "Four Genealogies for a Recombinant Anthropology of Science and Technology." In DNA research, a recombinant organism contains a combination of attributes from two preexisting molecules. I use the term here to evoke a sense that prior historical formations have not vanished as much as they have been recombined into different configurations of life and matter.

identifiable of these—to social scientists, at least (Hüwelmeier 1997)—are its civic associations, including sporting clubs, ladies' auxiliary organizations, youth groups, biker gangs, online gaming clubs, and tea circles and breakfast circles. But Dobbe amounts to more than the sum of its voluntary organizations. A survey of political views or of organizational participation would not fully map how those who differ are nonetheless part of shared worlds that register sensory levels and provocations in terms of form. To say no to one mode of participation is not to be absent from a social scene. Furthermore, discourses of acquiescence or refusal are not necessary to establish the fact of one's presence if people are materially copresent to one another, as they are in a village. In Dobbe, a gestural economy inheres in the habitual comings and goings of life, and villagers need not speak to one another or to desire a connection in order to become entwined in a community teeming with activity. Depending on the time of day or year, shifting formations of commuters, tractors, and cyclists on tour crowd the roadways. People travel faster and farther than they used to over the space of a day, tracing orbits around the village as they work, shop and play. Internet relays deliver information between villagers in real-time across fiber optic cable and, increasingly, radio waves in the digital cloud. The village is a sleeper community for factory or office workers, but it is also a staging area for experiments in modern living that date back to the German economic miracle, the birth of the postwar middle class, but also farther still to the successive colonization of Ostfriesland by various colonial powers, from Napoleonic France to a succession of modern German states.

The village also takes form in other ways that are often overlooked. It coheres through a series of stops on multiple trash collection routes. It's part of a live map of fixed and roving traffic cameras and speed traps that people detect as they drive across Germany, phoning the locations in to local radio stations to put the word out to fellow motorists. Dobbeners' sewage is now shunted into a wastewater treatment facility on the edge of town where it becomes biomass for energy production. Which of these versions of the village is the one where the renewable energy transition and its related imaginaries "happens"? Or is there another way to engage life in the village without reducing its description to a choice between some modes of dwelling in the world but not others? In the next section, I review recent work in anthropology, science studies and cultural geography that has allowed me to consider the village as a thing that is continually made at the same time that it is also multiple, taking various shapes through the relationships that constitute its making.

### *Writing the village multiple*

"How funny it is to hear us talk about Ostfriesland," my friend Lisa once remarked during our Friday morning breakfast circle. We met each month at a different person's house. On this morning, we had discussed where people used to go for fun when they were young, but each member of the breakfast circle came from a different part of Ostfriesland, so each had a different sense of where one went, what mattered and how. "Each one of us has a different sense of where and what Ostfriesland is. There are many Ostfrieslands. So many worlds in this one world." Lisa's statement squares with recent

work in science studies that points to the ontological multiplicity of things—or, in other words, the sense that one thing is also many things. The relations that constitute an object are necessarily partial (Strathern 2004), varied and unforeclosed, taking place at different timescales in numerous contexts. What Lisa said about Ostfriesland could likewise be said of Dobbe. Across the sport club, the sewage treatment facility, the Autobahn exit, the wind park, the new neighborhoods, the rollerblading paths, and more constellations of movement and matter, there are infinitely many Dobbes. The village “throws itself together” (Wallace Stevens, quoted in Beckett 1974:211) in different ways for each moment that it persists as an arrangement of stuff in the world, and in different ways for each of the partial relations that make it up.

The title of this chapter refers to *The Body Multiple* by Annemarie Mol, which uses the concept of the multiple to explore how atherosclerosis is simultaneously a disease that is made and a disease that makes. Although it is multiply constituted, the multiple that is atherosclerosis is a material participant in its constitution, acting materially upon and with those materials, practices and people enact it across numerous sites and situations. The more real something is—that is, the more relations that are enfolded its making—the more multiple it becomes. Relations secrete realities: objects unto themselves that entail partial perspectives (Mol 2003; see also Hinchcliffe 2010). Highly influential in the anthropology of science and technology, Mol’s concept of the multiple has been productively explicated in cultural geography by Steve Hinchcliffe (2010), who suggests it as a means of moving beyond the question of which reality is the “right” reality to questions of how a thing that is multiple works (or not) and for whom.

Hinchcliffe uses a community garden as an example: three different groups of users make up three different gardens, yet all are the same garden, and all of these groups and the realities they entail are copresent to one another, collectively if differentially entwined in the making of the garden. These perspectives were influential to me as I set out conducting my formal dissertation fieldwork. The concept of the multiple allowed me to make sense of a village that was different things for different people. To return to the Grimms' historical definition of *Dorf*, the village was a gathering of multiple things in composition, "not only a space but an event" (Stasch 2013:555). Dobbe threw itself together for me in different ways at different moments when I was in the village as well as when I was far away; the narrative senses of the village that I articulate above also conspired to make up my sense of what the place "was." Obvious "representations" of what a village was also carried the force of "presentations" (Anderson and Harrison 2010:14). They registered as first-order phenomena that exerted force alongside my own bodily experience. I found myself making lists of the different senses I had of the village, the concepts of village life that resonated as percepts unto themselves.

I found some purchase on my situation in the writing of Henri Lefebvre, Gilles Deleuze and Félix Guattari, who foregrounded rhythm (Lefebvre 2004) and repetition (Deleuze 1997; Deleuze and Guattari 1987) as modes of world making. In anthropology, the turn to dwelling and attunement fleshed out my understanding of the kinds of "bloom spaces" (Stewart 2007a) that refrains could encircle and open up. Similarly, cultural geographer Derek McCormack (2008) has written of spectral geographies brought into being by refrains, referring to the 1897 disappearance of a balloon expedition to the

North Pole, and the ways in which the repeated question of the explorers' whereabouts enfolded disparate elements into a field of "circulating reference" (Latour 1999a), of semiosis in motion. And finally, Tim Ingold's work on lines enabled me to conceive of the village not only as a parliament of static things, but also a set of paths interweaving or "meshwork" (Ingold 2011; cf. Lefebvre 1991, as well as the "Mesh" in Morton 2010)) of moving objects that could—theoretically—be followed. For Ingold, place is a knot "formed of the very lines along which life is lived," but the lines of life lived also trail beyond the known, "only to become caught up with other lines in other knots ... Every place, then, is a knot in the meshwork, and the threads from which it is traced are lines of wayfaring" (2011:100). The meshwork of which Ingold speaks is not necessarily that of humans moving across or acting upon external space in pre-determined ways, but of things-in-motion, including humans, worlded through their movements in, across, and with things. These various works furnished a toolkit that allowed me to wrap my head around the village as a thing that "took place" (Anderson and Harrison 2010) a living infrastructure that was made up of the movements of more-than-human life that were not only networks, but force fields where certain feelings and resonances accreted, fizzled out, or irrupted into my awareness. To attend to life in the village was to attend to its perceptual fields, the bodies or compositions of movement in which perception took form and recognized form. By "bodies" I do not mean human bodies per se, although I foreground humans in the stories below. Rather, I refer to socialities that attained across people and things in and through motion and the ways of attending that motion provoked. Following the writing of Iain Sinclair (2002), these moving assemblages or bodies could

be called “orbitals,” although the term orbital suggests that they were or less stable in composition, with predictable trajectories, which was not always the case. As people were constituted in common and in motion, so too was their perception of the world.

I began to attend to the things people said and did that put a punctuation mark on social situations. *So ist das* (“that’s how it is”) was a constant refrain at gatherings and mealtimes, marking a transition between topics or a mark of closure on difficult conversations. Waves and greetings between drivers marked the road as a thing lived out and witnessed. Dog walkers knew instinctively which areas of their morning path would cause trouble, grasping their pugs and hunting dogs more tightly by the leash in advance of the hot zones where unfriendlier canines might pass. But people weren’t the only ones whose actions metered social situations. There were any number of non-human or more-than-human things at work in the making of moments, scenes, and entire days: the sound of tractors on the road, particularly at the harvest time; the clucking of pheasants that signaled an evening; domesticated ducks squawking and quacking for feed. Through these perceptible refrains, worlds came into formation through the figure of the village and its inhabitants, allowing me to consider the different ways that the village happened in everyday life for those who lived there.

Over the course of my observations, then, I gleaned a sense of what people had in common based upon their everyday movements, and the ways in to the “place” of the village that all who lived there more or less shared, regardless of whether they voluntarily associated with one another or worked together in other capacities. In what remains of this chapter, I outline some of these commonalities and their repercussions as they



unfolded in my experience. I then hone in on one particular story—my experience of learning Nordic Walking<sup>13</sup>—to illuminate how, in one particular situation, refrains conspired to fashion common rhythms and attunements that made a world. And finally, I speculate on the implications these experiences have for making sense of ordinary life in relation to the energy transition.

*AUR JC-512*

People in Dobbe had two things in common: they all moved at various frequencies through, in and around Dobbe itself; and they all watched each other at the same time that they were aware that they were being watched. In the village, the primary constituents of this process were cars and drivers, but also cyclists on bikes and motorbikes, and people on foot. In addition, there were the circuits of phatic communion traced by telecommunications across cables and cloud computing. There is no way to list all of these here, as the multiplicity of Dobbe exceeds my own partial perception of the place and its composition. But by discussing some of these orbital paths, I hope to gain a sense of how various aspects of movement and tone can give rise to a sense of infrastructure, of things that furnish affordances in impingements in the simultaneous making of lives and dreaming beyond them.

Cars were a big deal in the village. It's not that there weren't many cars in the village—just about everyone under the age of 80 had access to one. It wasn't like it was in the time after the war when people could hardly afford a bike. But the car was an

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<sup>13</sup> Nordic Walking is a form of cross-country athletic walking that utilizes walking poles similar to ski poles.

engine of motion with a capital M; it drove a social event. Cars told you when something was happening in Dobbe.

In Germany, cars have prefixes on their license plates to denote the district in which they are registered. Since Dobbe is in the district of Aurich, for example, most cars here have a prefix of AUR, or occasionally an EMD for Emden or LER for Leer. In Dobbe, if you drove a car that isn't from around these parts, folks would take note. They'd crane their necks to see your license plate number. Is it a city person? A vacationer? Someone's family? Quick, get the binoculars. Some people kept them on top of the fridge for quick glances out the kitchen window, just to be sure.

My retired friend Gerd kept an old reference book from the ADAC—Germany's version of the American Automobile Association—handy for such contingencies. When I knocked on their door in 2007 to surprise him and his wife Hanne, they had already identified my rental car's registration before I'd even pulled up in their driveway. They'd taken note of the prefix when it was parked outside a friend's house and looked it up a couple of days before. "WOB is Wolfsburg," Gerd said, proudly showing me the chart of prefixes. Our shared smile was a wink at the thrill of a mystery solved with a happy ending on top. Before I bought my car in 2010, I spent a few days at Karl and Angela's house with my rented Smart car parked in front of their garage. Its license plates—registered in Oberhausen—were clearly visible. "What will we tell the neighbors about the strange car in our driveway?" Karl said jokingly as we spread Nutella on our evening bread.

But there was a nervousness about it, a sense that the strange car in the neighbor's driveway had to be qualified, accounted for. A few days later Karl came in the house after chatting with the neighbors over the knee-high picket fence between their driveways. "I settled it," he said. "I told the neighbors that we're a Mormon house [*Mormonenhaus*], and I now have a second wife." Karl's joke was funny, but his need to set things right with the neighbors was real. In both cases, the car was a matter of concern, a gathering of glances and looks and worries and anticipations best tackled through a joke that cut to the heart of the matter. You needed the ability to wink while conveying an answer to the unasked question: yes, this is legitimate. My wife is in town, and this is not my mistress. The car from Wolfsburg is just a rental. Isn't it funny how we all wonder what the rest of us are doing? It's both ironic and serious.

When I registered my used silver Volkswagen Golf in 2010 I paid twelve Euros for personalized plates, opting for the code AUR JC-512: my initials plus the area code for Austin. Personalized license plates were all the rage in Ostfriesland: everyone made sure to put something unique on theirs, usually initials and a birthdate, or perhaps a wedding anniversary. After ten years of borrowing and renting cars in Ostfriesland, sharing the twice-daily bus to town with unlicensed drivers (mostly people in their seventies and eighties, it seemed), I finally had my own car with my own license plate number. And it was a Volkswagen, the automotive embodiment of sensible middle-class belonging in Ostfriesland, thanks to the presence of the nearby Volkswagen factory. But now that I had the car, I was instantly identifiable. On visits with people I'd learn that they saw me just the other day. An Auricher plate, JC-512, was that me at the bank?

Getting groceries at Markant? On the road to nearby Doppersum, yes, they saw AUR JC-512 and tried to wave, did I see them too? Everywhere I drove became a story that someone else could tell: *de Jenny war döör*, Jenny was there.

Unless you were going to the grocery store or the pharmacy on the edge of town, nobody drove in the village if they could walk or cycle. If you were going somewhere by car, there must have been something going on, something to talk about. Implied in the excited “I saw you yesterday” is the question, “Just where were you going?” Just like Karl’s little joke about his two wives, I learned to respond in a way that answered the question without acknowledging it was ever asked. It’s not that I saved face by pretending a control action didn’t take place; everyone knew that the pleasantries is a control action. But being neighborly in Ostfriesland meant that you accepted that control actions were pleasantries. Recognition was neither nefarious nor nurturant, although it could be interpreted as either after the fact. Instead, it was an open game that may or may not have resulted in judgment or solidarity.

Driving turned me into a new kind of communicative participant. You had to know how to look while driving; you had to know whom to greet warmly, whom to acknowledge with a nod, and whom to coolly ignore—knowing this would acquit you if you were spotted in a hot zone. On particular roads my knuckles clenched on the steering wheel in anticipation of whom I might meet: the angry farmer’s wife from whom I had decided not to rent a room, or the unidentified old man who yelled at me once when he decided I braked too close to the crosswalk at Markant. It’s not unlike Young’s observation that, in Australia’s Western Desert (or perhaps a small town in South Texas),

cars are driven “gesturally”—the tracks a car makes are “conceived as the gestures of the driver” (2001:45, cited in Ingold 2011:91). As I drove, I made statements and learned to follow the statements of others. Places had their own etiquette that you learned to follow to be on the “inside.” Moritz von Uslar’s (2012) study of a town in the former East Germany notes the “importance” of cars, the attention to who is climbing in and out of them, the greeting of people through the windshield. In Ostfriesland, movements worlded you into a new kind of subject-observer: with the power to see more comes the ability to be seen, exposed by the path of your movement.

But if people were split up into different cars, they were also a public in common that emerged when “things happened” on the road. Like the appearance of *Flitzerblitzer*—roving traffic enforcement cameras that popped up at various places every couple of months. Everyone knew that there were permanent traffic cameras on the outskirts of Aurich and Emden. For well over a decade, the dull brown towers had stood on either side of the road. Drivers slowed tens of meters in advance of them, from 60 kilometers per hr to a school zone speed of 30. People said that these cameras were designed to catch the tourists who don’t know any better. But the *Flitzerblitzer* were always on the move between the villages, a portable camera on a tripod with a wire running to a car hidden in the bushes, where a technician with a laptop recorded each license plate number that showed up on the computer screen with a red flag. Sometimes the *Flitzerblitzer*’s arrival was foreshadowed by the installation of a radar speed indicator. There were emoticons next to the speed display that frowned at speeds over 40 kilometers per hour. But it was when the emoticon disappeared that you knew you were

in trouble. When a *Flitzerblitzer* arrived, word traveled quickly that it was now in place. If you were only going 20 kilometers over, you were okay; more than that, and you received a letter from the traffic bureau with the picture, clearly showing your license plate and face and a fine. (“Watch out by Markant; otherwise you’ll get a lovely picture,” people warned me sarcastically, but it was too late—I’d already been *geblitzt*. The picture was not lovely: I was an infrared zombie with mercury eyes.) If you were a repeat offender, you could lose your driver’s license.

It wasn’t just that more people had cars, or that modernization had produced time for leisure. There was also more *land* on which to travel. The land reclamation works in the mid-20th century gave rise to whole new roadways and rises, and terraformed lowlands for suburban development. On harvest days, tall Fendt tractors crowded the roads and you had to move to the side or, if driving, pass quickly. On nice days the edges of town and the reaches of the Dobbenerhammrich—the outskirts of town—were alive with sport cyclists and bicycle tourists, rollerbladers, Nordic walkers, dogwalkers, and the *Mofa* (moped) riders. The bikes were lighter and the road was smooth asphalt, but outside the village, bikes were now a leisure item; older folks and kids were the main ones who use bikes for transportation outside of town. Retirees who couldn’t bike or Nordic Walk sometimes took a turn on their walkers. Teenagers, if they were lucky, would use a *Mofa*. My German mother once showed me black-and-white photos from her youth in the ‘60s, when she worked in an office in Emden and rode a Vespa around Ostfriesland, her hair styled like Audrey Hepburn in *Roman Holiday*. In contemporary colors the *Mofa* is hardly glamorous and leisurely as it is loud and fast, a palinopsia of

pleather and fiberglass in motion. Saturdays on warmer days they roared around the countryside like jet-skis on land, their bikes and helmets identifying them to each other and those who know them. It was like a chorus of outboard motors. The *Mofa* riders were watching too, watching the cars and the goings-on around town, stopping in at the bakery to pick up *Brötchen* for their parents. Eventually the family got a full report of all that they'd seen at the farms and houses on their route, intelligence gathered on a day of wayfaring. Each movement was an act of surveying in which the senses themselves are distributed across nonhuman implements and surfaces—the wheels of the walker, the tips of the walking poles, the pull of a pug on his leash. And in each moment of encounter with a body moving at a different speed, the greeting: “*Moin!*”

I drove often, and often when I had no particular place to go, trying to get a sense of who drove when, and how places took shape through the movement of the traffic. As I passed the wind park over and over again, I realized that the wind turbines were now less an object of my attention and more an extension of it. Through them, I could gauge the weather from the quality of the light that did (or didn't) reflect off of the concrete towers. The constellation of red warning lights that flashed in the night sky helped me find my way on rural backroads in all but the thickest of cloud cover. I realized how much I used them to orient myself climatologically as much as spatially one day when I drove out of my driveway to find the tops of the turbines covered in fog, their rotors invisible as if they had ascended into a strange overworld from which the red warning lights pinked on and off through the clouds.

*“Dat Wicht, de hat keen Licht”*

Each of these orbitals traced a path that was itself a worlding, a semiosis of noticing grounded in repetition. Each path indexed, to paraphrase McCormack, “a distributed field of circulating affective materials” (2010:642) that sedimented into the natural history of the place. But then *something* happened: a car approached, a light was unexpectedly out, or someone was parked by the lake. The clouds were so thick that half the turbines vanished into them. The something that happened became news that did or didn’t gain traction.

When I moved into the log cabin, Antje was keen to show me how the blinds worked. They were set between two panes of glass on each window, ready to be rolled up or down like this, she showed me, twirling the hanging wand you used to open and close the slats of iridescent metal. There were curtains to hang over the patio doors. I’d want them, Antje said, “to keep the neighbors from seeing what you watch on television. They’ll pass by and look right in to see what you’re watching!” *Was guckt DIE denn?* What is SHE watching? There were also blinds in the glass doors, just like the windows. “They get stuck sometimes but it’s okay to use them. Here, like this.”

The desired effect was that of the rolling shutters that many homes in Germany have, the slatted metal kind that are housed in the wall. You raise and lower them using a cloth lift cord from inside the room. When I lived in Münster, in the city, we used them to block out light or cold more than we did for privacy. Mornings in my apartment building were always marked by the cranking sound of shutters rising; and evenings were marked by the zip of them coming down. But in the village, people used them to keep their



neighbors out, to close off their rooms at night, upstairs and down. Each night Angela made sure the living room shutters are drawn every night before settling in to watch *Friends* or *How I Met Your Mother* with Karl. Each night in the Dobbenerhammrich, Antje made sure to roll the shutters down over the study window where she sat and watched the reality shows on RTL. When the shutters were down there was nothing to see; no light emanated from behind them. Windows became walls.

Over time I came to perceive that the windows on Dobbe's houses had an indexical force. Over time, the regular raising and lowering of shutters turned the house into a face, a kind of synecdochal placeholder for its occupants, the consistency of which held a familiar scene together. People got riled when something deviated from patterns they hadn't realized they were attending to. If a neighbor lowered the shutters at an off-time when nobody else was home, for example, it hit you like a slap in the face: he was up to no good. What if the lights weren't on when they should have been? Something was out of joint. Someone *would mention it later*.

When I lived in the log cabin I spent my evenings at home upstairs at my desk and didn't bother with the downstairs blinds. I rarely watched TV by myself. If I had, the road from which people could see my tiny TV screen was two hundred feet away, with trees and brush lining the canal between the road and my lot. Even if I did watch TV or care what people thought about it, they couldn't read the screen from the road. In essence, there was nothing to see. As it turned out, this was precisely the problem.

"Does Jenny still live there?" one of Antje's Nordic Walking circle asked her one Tuesday. Yes, Antje replied, why wouldn't she? Because, the neighbor answered, the

girl has no light on downstairs—“*Dat Wicht, de hat keen Licht!*” Antje quoted to me later. I wasn’t occupying space the way people expected me to; ergo, I wasn’t there.

My invitations for afternoon coffee at Antje’s house increased. “Why are you not sitting in the living room at night?” she asked, again and again. “Perhaps you’re depressed. You can’t always study.” I tried to explain that I was fine, but to no avail. The interrogations mounted, always as expressions of genuine concern. Some nights I took to leaving the television on downstairs so the blue light would be visible to the road.

“Do you ever tire of it?” I asked Antje one day, when she’d been complaining about gossip in the neighborhood.

“What do you mean?” she replied.

“I mean, what’s the point, if everyone’s always watching what you do, asking questions, and sticking their nose in your business?”

“But most people don’t *mean* anything by it. Sometimes people ask out of real concern, they want you to be okay. Like when I ask you about why you’re upstairs all the time.”

Most conversations about surveillance in Germany presume a model of observation that is, in some way, an operation of the State that works through a certain kind of citizen-subject in concert with an ideology oriented to expurgating the Other. Can we actually trace the micropolitics of surveillance in Dobbe back the Third Reich, or perhaps to the occupation that followed, with legions of Canadians standing around the village, controlling all the bridges? What would we gain if we did? Could we trace it forward, to fear lodged in a sense of future threat (Massumi 2010), impending from

elsewhere, that may or may not come to fruition, mobilizing people to attend to their surroundings as if it were already among them? Contemporary anthropology has something of a romance with nefarious surveillance in the West: the image of the master planned neighbor practicing fascism in the guise of concern. The wayfaring body gives rise to the subjectivization of bodies, against which one may secretly (or not so secretly) dream of rebelling. But what if the surveillance does not register as an intrusion to those being surveilled? If it's a way of life, is it still nefarious? Are there other ways to make sense of it, or could it hold insight into other things besides commonly-narrated aspects of the historical past?

### *Neighbor help*

A recurrent figure in the previous sections is that of the neighbor, or the *Nachbar*. The figure of the neighbor opens onto another set of orbital paths that Dobbeners traversed: the obligations of neighbor-help, which enfolded villagers<sup>14</sup> into an ongoing series of social obligations that have existed in various forms for generations (Erickson 1969).

I first became a neighbor in 2003 when I moved into Elfriede Adler's old house. At a time that was surreptitiously worked out by Volker and Regina, who lived on the other side of the duplex, the residents of the surrounding area (roughly a one-mile radius) arrived with a heart or *Herz* as a housewarming present. The heart was made of fir

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<sup>14</sup> Neighborhoods were usually comprised of all residents of a common a street or cul-de-sac or, in more remote cases such as mine, whole segments of roadways that connected farmsteads and hamlets.

branches mounted on a wooden frame, made of heart-shaped plywood. The ends of the branches were pulled through the frame and secured with twisted wire, and the rest of the branches were woven around one another to completely blanket the wood in green. On top of it were pieces of crepe paper streamers twisted into flowers, with a blue posterboard sign that read *HERZLICH WILKOMMEN* ("Welcome") in black cursive handwriting. Under the obligations of neighbor help, members of a given neighborhood are responsible for making fir hearts or garlands (*Bogen*) for neighbors to commemorate their birthdays (and specifically "round" birthdays, usually marking decades), housewarmings, weddings and wedding anniversaries. Furthermore, neighbors were often required to assist in the event of a neighbor's death and bereavement. Men served as pallbearers and women served tea and cake at the gatherings that took place before and after funeral ceremonies.

As a new arrival to Ostfriesland, I embraced my status and responsibilities as a neighbor, and when I returned to visit my old neighbor Ilse, I recounted how I had proudly told my friends in Texas that I was on my way to stay with my former neighbors in the village. Ilse's reply took me by surprise. "I wish you wouldn't use the word 'neighbor' about us," she said. "Neighbors aren't quite so nice; they're something you have whether you like it or not. But friends are something you choose."

At that moment I realized that *Nachbarschaft* had more complex connotations than I had previously understood. As I attended more closely to the contexts in which forms of "neighbor" were invoked, I came to see the term as a placeholder for tightly entwined senses of unshakeable obligation, unavoidable surveillance, and inevitable

mortality. Neighbors were the ultimate witnesses; little could be hidden from them, and they would either outlive you and witness your death or make claims on your time if you outlived them. They were indispensable at the same time that they saddled you with the knowledge that you were who you were and where you were, regardless of whether you wished otherwise. And yet there was also a pleasure in being a neighbor, in being "in the know" when things happened and in being responsible when your help was needed.

### *Nordic Walking*

I began to work out ways of engaging the things people said by attending to the contexts in which utterances took place, and more specifically to the rhythms around which these scenes cohered. Over time, I perceived that at the same time that people expressed some annoyance at the being constantly surveilled, they also took pleasure in it in a Levinasian sense—they sank into it, extending themselves into the game of it and in the commensality of knowing you were being watched. And there was also enjoyment in sharing worlds together, in making worlds through repeated meetings and encounters. The example I relate below—the story of my learning to Nordic Walk—demonstrates the pleasures of moving in unison, and the common communicative frame it establishes, allowing attention to move and pool together even as the images it cultivated were personal, different for each of the participants involved.

Every Tuesday night—weather permitting—the landwomen of the hamrich went Nordic Walking together. Each week they met at someone else's house and walked for a roughly hour, after which they returned to the house to drink beer and smoke. Antje

called them her *Laufkreis*; literally, her walking-circle. Hard called them the stick-ducks [*Stockenten*], and after awhile, this is what we called them too. “Antje is walking with her stick-ducks tonight.” The women were flocking across the countryside. The walkers took different routes depending on whose house they started from. If they began at Traute’s, they looped around the big pasture between Traute’s house and the Antje’s house. If they started from Antje’s house, they might have headed out under the wind turbines.

Antje’s friend Sabine was about my size and had an extra pair of walking sticks, and suddenly I became a stick-duck too. We took them out to the driveway to practice, over by the pond. Antje and I would become a Nordic Walking pair unto ourselves. She assured me that she would help me remember how to use them properly. There was a pedagogy to Nordic Walking, a way of holding things and being held in them, that I had to learn if I was to take part or see the way the stick-ducks see. I was learning to bring my body into alignment with a body of practice.

Antje explained that the sticks must be the right length. They must have fresh rubber tips. “Don’t spend too much on the tips if you buy them in Emden. Where did you buy these—the sporting goods store in the city? You could have gotten them much more affordably at Real or Nix Wie Hin, the outlet store. But no matter. Here, it says *L* or *R*, notice which pole is for which hand. Now fit your hand into the sling at the top of the stick, yes, like a bowling glove. Fasten the Velcro there. It must be loose but firm. [The Velcro makes ripping sounds as you adjust and readjust it.] Now hold the top of the stick. You start by walking at an even pace and drag the sticks along behind you as you go. Now notice your pace. When your left leg is extended then pull your right hand up

slightly more. Then with the right leg, the left hand. Eventually you should scrape the ground rhythmically. Then you can bounce the stick lightly down, like a counterpoint to your foot on the opposite site. Yes. Like this.” First there was a kind of dragging, a scraping, yes, let them drag until you’re comfortable, let them go like that until you know your pace. Right here, on the driveway. Let me show you again. Let them scrape on the cobblestones. You start by raising your arm with the stick, the other arm from whatever foot is stepping down. Left-right, Right-left. You can feel it start to bounce. Yes, that’s right. Now we can start.

Antje packed me into Iko’s Audi station wagon (he bought it used, for a good price, she explained). We drove west toward the *Autobahn* bridge, but just before crossing it we turned off into a farmer’s driveway, slowing next to one of their barns. We parked just left of several garage doors that were open, revealing old machinery and tractors. The sun glinted off the white metal of the barn’s walls. “Bodo will say, ‘what is she doing with Iko’s car?’” Antje laughed. “They know that he’s traveling with Kai and Martin today.”

We set out on the road from the *Autobahn* bridge, following its northeast arc back toward Dobbe. On the left, we passed a lake rimmed by trees and tall grass. The lake is fed on two sides by one of the canals that runs from the *hammrich* into town. “The *Biotop*,” Antje says. There was a fenced-in path that looks out to the water’s edge with a plaque, but we stayed on the road. I learned later that the *Biotop* was created in order to preserve a small tract of the wetland ecosystem that was covered with sea mud during the land reclamation works.

Meanwhile, Antje and I pressed on, looking toward Dobbe. Our hand-sticks slide-tapping on the cobbled road, we talked about acquaintances from other places, bringing our connections into alignment, placing each other, metered by the sound and impact of the Nordic Walking sticks. “Do you know this person?” “Yes, oh God, how do you know them?” Sliiide, tap, sliiide. “You hear he has Alzheimer’s?” (Or Parkinsons, we heard later—he’s always trembling.) “*That* woman—you know how she is, one time we had a man in our women’s group who can read your whole life from your feet. And she always has to be the center of attention, so she raised her hand and came running up to the front. Well, that man put his hands on her feet and announced to the whole group, you have a slipped uterus! She was so incensed, I laughed so hard I threw myself away.” Sliiide, tap, sliiide. The walker and her sticks are a companion species, not simply the pairing of human and non-human elements but a new kind of moving body whose taps and slides are marking out a refrain, the beat by which this particular mode sociality is measured and its modes of attunement composed.

As Antje and I approached the intersection in a succession of slide-taps, she spread her still-sticked hand up and outward, sketching a line to indicate the expanse of the wind park to the east, exclaiming “Look at that, the windmills!” “And sometimes you can hear it, the *VHOOM... VHOOM... VHOOM.*” She wonders aloud if they were moving with the wind, or if there was some kind of motor moving them along. “When you look at it this way, they look different from each other. Look at this one.” She pointed. “See how it looks different than the others.” The rotors were large, darker, lower; closer to the industrial park below. “It looks different, other somehow, grayer.



You can see that they're not all the same when you look at them from here." The next time, she told me, we could walk under the wind turbines. "You can do that, you know, if you take the road from Dobbe next to the optometrist, if you turn there toward the water treatment plant. It's really crazy [*wahnsinnig*]. When you walk under them you think, hopefully none of the blades will fall down! Once we walked that way and Haike said she couldn't continue. There was a little platform by base of one, she sat down and we went on. Then when we came back she hid herself. 'Oh God, where is she now?' And then out she sprang, '*TA DA!*' And we laughed so."

Sliiide, tap, sliiide.

The road curved northward toward the village first, then angled directly to the east. A perpendicular road intersects with it at the bend; if you want to head into the village, you must turn left here. This is the First Hammrich, the north hammrich. Antje told me that we lived in the Second Hammrich. In the old days, before the land reclamation, you couldn't reach the First Hammrich from here except by boat.

As we got closer to the intersection, a Volkswagen station wagon with Emden plates turns from Im Nordenhammrich onto our road and heads in the direction from which we came. We moved to single file to let them pass, our steps synchronized as a march. There was a man driving and a younger man in the passenger's seat. "*Wer ist das denn?*" Who is *that* then? Antje said that whenever when we see someone out and about. "I might know them."

We walked a hundred or so more meters eastward, then turned to head back to the car. The men were getting out of the Volkswagen and walking down the fenced path

toward the plaque, carrying something indistinguishable. “Now what are they doing?” Antje said. “What are they carrying?” I added. Heading back from the *Biotop*, the men schlepped something large, plasticky, and translucent across the grass. Our necks craned to see what was happening. Our hands, still strapped into the nylon slings at the top of the poles, tensed and slackened willy-nilly at our sides as the poles connected and reconnected us to ground like tension rods.

The men put the thing into the Volkswagen and pulled out onto the road again, heading in our direction. Again we shifted to single file. There was something sticking out of the open hatchback, a kind of wooden pole with a rounded metal or plastic tip. “You wouldn’t believe the trash that people throw in the forest here,” Antje said, gesturing her stick-hand toward a stand of trees between the lake and road. “We’ll have coffee when we get home.”

Sliiide, tap, sliiide.

Occasionally in the village you’d see them in the afternoon: groups of older women, or a retired couple, out with their Nordic walking sticks. Younger men and women wouldn’t be caught dead doing it; older men would never do it in groups without their wives. I’ve never seen anyone under forty Nordic walking, except myself and Angela. Angela had back pain if she didn’t exercise regularly, so she took a class awhile back at the county continuing education center. She didn’t know the other people in the class, but they learned to Nordic walk together in the Ihlow forest a few miles away. Months later, she still had her walking sticks and occasionally walked alone, but after Antje taught me we did our best to Nordic walk together every couple of weeks if it

wasn't too wet. We stuck to the northwest side of the village, walking the road from the neighborhood where Angela lives to the dead end at the Ems-Jade Canal. We said it was our time together, but we could never really shake her children. Even if we made it two hundred yards from the house, where they had been ensconced watching television, they ran to catch up. Her kindergarten-aged daughter always wanted to hold my walking poles. And her fifth-grade son followed behind, miming the motion of our arms. One day he fashioned his own walking poles using sticks fallen from the trees that line the road. He ran ahead, then doubled back to show us his form. "I am Nordic walking!"

Through Nordic walking, Antje and I and then also Angela and I became sensing bodies, separate yet together on a shared path that depended on our moving in unison, raising and dropping our Nordic walking sticks in a refrain that held us in common—or perhaps, *as* a common. Together we beheld the wind turbines and the men on the road, not necessarily thinking the same thing, but sensing simultaneously their presence and their provocations. The act of Nordic Walking became a site, if a mobile one, at which the village was made up as a zone of happenings, of observations, and assessments.

### *Conclusion*

Many of my early field notes were written in this style, with an attention to the (sometimes numerous) refrains I could perceive in situations between people or between more-than-human things in everyday life, and to the perceptions that were shared across otherwise discrete actors by virtue of their copresence to one another (whether in person or “online”). After some time, in reviewing my notes, I detected patterns that helped me

decide which sites to focus on, attending not only to the things that people said but also to the replicability of mundane situations. The breakfast club and tea circles were two such sites, continually re-constructed in the regular meetings of their participants. Other sites included the grocery store, hunting clubs, church events, tea time and afternoon snacks with families that I knew around the village, and gatherings in the Dobbenerhammrich, the outlying community of farming families which threw itself together in numerous ways, which I touch upon in the next chapter.

In these everyday comings and goings, the energy transition was simultaneously everywhere and nowhere. The village was full of renewable energy technology. Its objects became prostheses of our attention as much or more than they were objects of that attention. There were moments where a shift in perspective located us in an energy landscape, such as when Antje sketched an arc around the wind park with her Nordic Walking stick, or when Collin and I drove around the municipality filming solar panels. As Dobbe “took place,” the wind turbines, solar panels and later biofuel materials were enfolded into its making, infrastructures of village life even as village life—and its multiple sites or socialities—were potential and actual infrastructures for the energy transition’s unfolding.

## Chapter 2: Natural Histories of Power

### *Natural history and ontologies of place*

The previous chapter considered the village as a meshwork of matter in motion that gave rise to ambient zones and practices that solidified as objects to hand in everyday life. In this chapter, I consider how modes of relating to the energy transition in Dobbe are shaped by ontologies of place, and the repercussions these have for various people's engagement with renewable energy development and its promises. By ontology of place, I mean a sense of how people and things come to matter together—to “take place”—in particular ways. If ontologies posit what kind of beings there are in the world, then ontologies of place refer to idiosyncratic fusions of matter—which we might otherwise treat separately as people and places, or selves and societies—and their living out in everyday life. Where imaginaries are extensions into the world, ontologies are those implied orders of the world that imaginaries imply and index, even as they constitute these orders anew.

The writing of this chapter was inspired by Walter Benjamin's concept of "natural history" and its subsequent interpretations in philosophy and literature (Benjamin 1998; also Adorno 1984; Hanssen 2000; Santner 2006; Sebald 2003). For Benjamin, this refers to the process by which lived history "merges into the setting" (1998:98) to become taken for granted if it is taken for anything at all, even as it continues to exert infrastructural force on the reproduction of life. In this text, I take natural history as a term for the more-than-human social relations that have inhered and sedimented through material

transformations to Dobbe's built environment (including its vegetation, soil, and other elements of what is sometimes called the natural world). Ontology--the sense of what exists--takes form through the pileup of natural history, including forms of discourse but also physical materials like silt. The aim of this chapter, then, is to approach ontology through social situations as well as through an attention to the materials that have piled up in this particular place over time, producing the conditions for renewable energy development's unfolding.

Ostfriesland's energy transition is the latest incarnation of settlement and modernization projects that have taken form in the area since before its 17<sup>th</sup> century annexation by Prussia. Historical narratives attribute these projects to the influx of people and power from nearby cities, expanding Catholic missions and dioceses, the Holy Roman Empire, Prussia, Napoleonic France, and Hanoverian rule, and to disasters and immediate threats, like encroaching storm floods and biological warfare via dike destruction. Each of these technical and technoscientific initiatives has taken form in unique ways, connecting shifting and sometimes-overlapping constellations of what we might call elites, workers, actors and terrains immanent to East Frisian places. In the marshy muck of the North Sea swamps, these developments, their triumphs and their detritus piled up into a natural history through which certain power relations became commonplace, infrastructures for making sense of the world and for making one's way and one's livelihood within it, offering differential affordances to those in their midst.

While I was in Dobbe, I came to understand that social practice in and around the village was informed by vibrant (yet relatively stable) ontologies of place that served as

an infrastructure of participation in the energy transition and informed the imaginaries that took form around its implementation. It also furnished a repertoire of images around which Dobbeners could make sense of the world and their place in it. These ontologies of place were continually recombined through the material transformations taking place around the village, of which renewable energy projects were only a recent and limited part. To unpack this phenomenon, I focus here on one object in and through which these ontologies of place come into focus: the Dobbenerhammrich or “hammrich,” the outskirts of Dobbe where the community’s most lucrative energy development projects are taking place. While all villagers who own homes have the possibility of installing solar panels, for example, the wide open spaces of the hammrich are where the majority of wind turbine installation and biofuel projects took place. By mapping the hammrich and its inhabitants—commonly called the “hammrichers”—and their worlding through local notions of location, belonging, livelihood and propriety, I explore how Dobbeners understand who has the ability to capitalize on different kinds of development projects in Dobbe, and how. Everyday situations are sites at which the natural history of these power relations becomes infrastructural, sedimented through repetition and resonance.

### *Into the hammrich*

The northern German word *Hammrich* is derived from the East Frisian term *Hammerk*, a contraction of old Frisian words for “village” and “mark”—used today to denote meadow and pastureland on the edge of villages in Ostfriesland. In theory, at least, each village has a hammrich. Hammrich communities are distinguished by prefixes

that refer to the village that is closest to them: here, Dobbenerhammrich; elsewhere, near the village of Paxtum, Paxtumerhammrich; near Tergast, Tergasterhammrich; near Riepe, Riepsterhammrich. In everyday parlance, *Dobbener* are often invoked or framed as synonymous with villagers and placed in opposition to those who live in the hammrich. To mitigate confusion, I refer to people who live in the village (*Dobbener*) as villagers and to residents of the hammrich as hammrichers, and to the members of both communities collectively as Dobbeners (without italics). I refer to both villagers and hammrichers as Dobbeners because both are connected through the same local parish, sport clubs, elementary school, grocery store, and gathering-places, like the spot in front of the bank where young people congregate. The figure of the hammrich took form through and alongside a series of linked and more or less homologous oppositions that Dobbeners make between farmers and non-farmers, landowners and tenants, rural-dwellers and village-dwellers on the land. Below I trace how these oppositions take form, implicitly and explicitly, in everyday life, and consider the material transformations they have undergone since the end of the Second World War.

My aim here is to provide context for these forms of distinction while also exploring how they are experienced affectively, as infrastructural elements of everyday life. I explore their affective force through ethnographic vignettes that open onto transformations to Dobbe's built environment, and specifically two events in Dobbe's recent history. The first event, the land reclamation works known as the *Überschlickung* or "over-silting," unfolded over four decades, rendering Dobbe's environs physically unrecognizable from their prior state. The second event consists of Dobbe's



incorporation into Walder, a municipality that was created in the 1970s to administer development in the village and in neighboring communities. Both of these events impacted the material ways in which subsequent developments took form in Dobbe, as well as citizens' various possibilities for participating in these projects.

By considering the material transformations inherent in recent events, this chapter unearths the natural history of the power generated in the region, both in terms of social enfranchisement (and exclusion) and in terms of the wattage and joules that are delivered to the grid. In other words, it traces material movements and practices that have become naturalized as infrastructures, with an eye to the lively matter through which these histories persist as "presences that impinge" (Strathern 2004:23) on Dobbeners' senses of propriety and possibility, forming ontologies of what exists. These impingements are sensed out in mundane moments and everyday conversations, and may be experienced as oppressive, emancipatory, or as the "way things are," if they are named at all. The social distinctions that I discuss here are shifters that play upon particular ontologies of place and power at the same time that they move to invoke different positions and possibilities from situation to situation. The force that these distinctions exert in everyday exchanges is infrastructural in the sense that they evoke enablements and impingements immanent to social situations, impacting Dobbeners' varying modes of economic enfranchisement and energy citizenship. A closer examination of these distinctions illuminates how concepts of constraint, possibility, and promise are bound up in flexible but forceful notions of who one is and where one comes from relative to others in their midst. More plainly put, this is a question of class, continually re-negotiated through acts and experiences of

distinction. My focus here continually returns to the situations through which these take form and are understood by those in their midst.

When I began conducting focused ethnographic research on Dobbe, I came to realize that the village and its environs were populated by two different social classes, correlated roughly to villagers and “hammrichers”—people from the outskirts of town—and that these distinctions preexisted the energy transition at the same time that they were recombined and retrenched through the various development projects taking place around Dobbe. In 2010, as Karl drove me to the first lodgings I found—an apartment in a larger farmhouse just north of the elementary school—he pointed to the village city limit sign, which stood fifty yards before the entrance to the farmstead. “Well, you’re living so far out, you’re actually in the Dobbenerhammrich!” he exclaimed. I recognized the name Dobbenerhammrich from the sign I had seen on the other side of Dobbe, on the road from the Autobahn into town. It was a small yellow road sign with green letters, the sign of what is known as an *Ortschaft*, a community or hamlet that is part of a larger municipality. The Dobbenerhammrich sign was not as large as the yellow-and-black city limit signs that indicate when you are entering or leaving a village proper. The sense that spun out of Karl’s words was that of a space entirely apart from the village itself, which was amusing to me given the fact that the village was less than a football field away, clearly visible across a stretch of furrowed farmland.

When my first lodgings fell through (as I describe below), I moved to the log cabin on the south side of the village, just a block away from the Dobbenerhammrich sign, where I would spend the remainder of my field stay. I was now, as Antje told me

when she greeted me, a resident of the hammrich. (Curiously to me at the time, she did not refer to my prior landlords as hammrichers, although they also lived outside the village city limits.) During the year I spent as a resident of the hammrich, my social and professional life became entwined in the community, and the distinctions that people made between the hammrich and the village became more salient in my understanding.

*“Be glad that you’re not from the hammrich”*

Within a few weeks of my arrival at the log cabin, Antje, her longtime friend Frauke and I were seated around Antje and Hard’s kitchen table drinking beer when Mieke, their fifteen-year-old daughter, came into the kitchen after spending time with some of the neighbors. Mieke was a member of the *Landjugend* or Land Youth, the rural youth association to which the children of farming families belonged, and through these connections, she was usually present when younger hammrichers gathered socially. As Mieke joined us at the table, she confided that she was upset by a comment made by Bodo Acker, an older farmer in whose barn the Land Youth gathered. In the middle of friendly banter between the entire group, Acker had looked at Mieke and quipped, “Be glad that you’re not from the hammrich. [*Sei froh, dass du nicht aus dem Hammrich kommst.*.]”

What Bodo was referring to was the fact that Mieke had not lived in the hammrich since birth. At the time that Mieke was born, her family lived in Tergast, a nearby farming community where Hard’s father’s family had farmed for generations. Hard and Antje had met at a dance in Dobbe, and she had moved to Hard’s village with

him after they married. There they had raised all three of their children until Mieke, the youngest, was ten years old. Hard had been licensed as a farmer, but his family had run a farm equipment rental service, and he had made a lot of money on investment schemes in the 1990s. Across the pasture from Hard's parents' old house, Hard and Antje used their new wealth to expand their own home into what they called a villa. Mieke's older siblings, Eva and Iko, were both active in rural youth organizations; Iko had been a member of the Land Youth since his teens (both communities were part of the same chapter area), and Eva was so involved with equestrian competitions that Hard had a stables constructed that the family ran alongside their other enterprises. But after their stocks bottomed out, they were forced to sell off their property. It was a hard loss for them all. Their old neighbors had thrown them a going-away party on the second floor of the stables, presenting them with an album full of photographs and well wishes. The farmstead they bought in the hammrich had belonged to a distant cousin so they were able to buy it at a good price. And so Hard and Antje moved their family to the hammrich, where Hard found work as a contractor for Fokke Harms, a Hammricher who rented out farm equipment and services just as Hard's family had done, only at a much greater scale with the rise of industrial farming around the region. The Harms family, like Bodo Acker's, had been in the hammrich as long as anyone could remember.

When I moved to the hammrich, Hard and Antje had only been living there for four years, but they had socialized with hammrichers for virtually all their lives. Half of Hard's family was from the hammrich, and Antje's mother's family had been connected to them through labor for years: her grandfather, a cobbler had made shoes for all the

farmers of the hammrich before the war; her mother had worked as a milk inspector, riding her bicycle across the swampy terrain every month to perform quality control. Hard and Antje had met at a dance in Dobbe, and many of their lifelong friends were from the Dobbenerhammrich. Fokke Harms was one such friend, and Fokke's children had grown up with Hard and Antje's children in the Land Youth. Given this knowledge, I found it curious that Antje as well as her daughter Eva were particularly keen to distinguish themselves as equal to those people in the hammrich at the same time that they were also hypervigilant of the need to live "as hammrichers do." Attendance at social events and even driving one's car were sites of potential scrutiny and self-evaluation.

One day early in my stay at the log cabin, for example, Antje mentioned that an old woman from the hammrich had died, and that the funeral was that week. "They'll expect me to go to the closing of the casket," she said, "but I'm not going to go. All the women usually go. Dressed in black. I'm not going to do it. The woman is from the other side of the hammrich anyway, on the other side of the road." By mentioning that the woman was from "the other side of the hammrich," Antje pointed to the multiple hammrichs that made up the Dobbenerhammrich. There were at least two named hammrichs in the Dobbenerhammrich—literally known as the "First Hammrich" and the "Second Hammrich," which lay in concentric semicircles outward from the south side of Dobbe, divided by a canal. The Dobbenerhammrich also spanned two major roadways: the road to the Autobahn, just east of Antje's house, and the Autobahn itself, which could be traversed by an overpass—the "Autobahn bridge"—that linked one side of the

hammrich to the other. The names of these areas were dependent on one's own residential location relative to them. These were zones as distinct as the first and second hammrichs, but they were known simply "the other side of the Autobahn bridge" or "across the highway." The hammrich was as much a shifter as were the hammrichers' identities. The descriptors that people afforded them depended on where they themselves lived or spent the most of their time. While the roads and canals that ran through the hammrich furnished loose boundaries, practices of neighbor help didn't always adhere to those boundaries, as social events could variably include people from one or multiple areas of the Dobbenerhammrich. Interestingly, however, when I asked people from various households and locations around the hammrich how they would write the term in plural, several countered that while the proper spelling would be *Hammriche*, adding an "-e," such a spelling would never come into question, since "there is only one hammrich" in any given geographical location.

During my fieldwork year, I noticed that Antje demonstrated more ties to the people on the western side of the highway into town—the side of the hammrich in which she lives—than to those on the eastern side of the highway, and it was generally so that people on either side of the highway tended to cleave together as neighbor groups. Antje's statement that the deceased woman was from the far side of the hammrich relieved her of the responsibility of carrying out all of the requisite tasks of neighbor help that would have otherwise compelled her, had the woman in question been one of Antje's more immediate neighbors. The "they" of whom Antje spoke conjured the surveilling "they" that Dobbeners perceive in and around their community, which I detailed in the

previous chapter. Antje's mention of "they" hung in our conversation like an unreasonable schoolmaster who invited no loyalty. Ultimately, Antje did indeed opt out of the closing of the casket—"we'll send a card, and that's enough," she commented. Using the idiom of the hammrich, Antje indexed her own place in its ecosystem even as she opted out of participating in an event that some might construe as compulsory to those who lived in the hammrich.

Against this backdrop, Bodo's remark to Mieke worked as a backhanded compliment; a reminder that, even in the midst of participating in banter among those she considered her peers and her people, she was not really one of them. She could "be glad" that none of their burdens were hers, and as such, she could never fully count herself as a fellow hammricher. When Mieke recounted Bodo's remark, her mother was unmoved. "What Bodo says is actually nonsense," Antje replied evenly. "We live here, we're from the Dobbenerhammrich."

Antje's friend Frauke displayed less equanimity. "The hammrichers have always been terrible to people, so full of themselves as if they were God himself, it's no wonder the people resent them." Frauke lived in Emden, and had been socially connected to the hammrich for years. Her words cracked through the air, rendering it electric with the unveiling of a public secret (Taussig 1999). No one at the table responded to Frauke's assessment. This was not the first time I had heard someone speak ill of the hammrich; it was, however, the first time I had witnessed it beyond the confines of a nuclear family. As Antje's daughter Eva once said, "People will be vicious, and the hammrichers are anyway." Among self-avowed hammrichers, Eva's words might be embraced as a point

of pride—*Be glad that you're not from the hammrich*. And yet people in the hammrich would also say that it was the loveliest place in Ostfriesland, or a space of manifest destiny and promise. And in the midst of these various statements came other expressions that revealed how the hammrich itself was a shifting terrain and a versatile object, part of a larger “shared field of latent and explicit signs” (Lepselter 2012:94). This field and the shifting movements of the things that constituted it came into focus through the things people said, implied, or pointedly did not say about power and provenance in and around Dobbe.

Later that week over coffee, Antje told me more about Bodo Acker. An old farmer who lived near the Autobahn, he was also the *Ortsvorsteher*, elected by the people of the hammrich to represent their interests to the municipal government in Wälder. “He’s like our mayor,” Antje explained, “and that’s what we call him—” here her eyes, danced, suggesting that it was more a humorous term of endearment than a mark of respect—“the mayor [*Bürgermeister*] or, in *Platt*, *Buurmester*.” Antje went on to explain that Acker had also mocked her and Hard for not coming from the hammrich, since both of them grew up elsewhere. Antje was from Dobbe, and while Hard’s mother had been born to an old hammricher family in the hammrich itself, he had grown up elsewhere. “When they do that to Hard,” Antje said, projecting Bodo’s words onto an abstract *they*, “they call him a half-hammricher. ‘There he comes, *der Halbhammricher*.’ You know what he says back to them?” Antje’s voice took on the feeling of warm steel. “Not the Hammricher. The *Tergaster*.” By referring back to his natal village, Hard distinguished himself as a person not from an outlying area that refers back to a village (like the



Dobbenerhammrich) but from the heart of a village that is made up almost exclusively of farmers. “Bodo tells me that I’m not a hammricher because I grew up he in the village,” Antje continued. Several months after Bodo had first said that to Antje, Bodo had asked her to help reelect him as community representative. “I told him, ‘But Bodo, I can’t vote for you, because you told me I’m not from the hammrich.’ And then he said, ‘Oh no, I didn’t mean that! That was only fun!’ So I showed him it’s not nice to say those things.” For Antje, it seemed, Bodo’s statements were worth nothing more than the energy it took to shoot them down, an opportunity to relate an ongoing play of wits with evolving stakes.

Bodo Acker’s emphasis on being from the hammrich recalls concepts of kinship that researchers from Cambridge University documented in the English village of Elmdon during the 1960s. Elmdoners framed their relative degrees of belonging and entitlement in the village in an idiom of “real Elmdon,” predicated upon a binary opposition between those who were true villagers and those who were not. For Marilyn Strathern, the idiom of real Elmdon is imbricated in notions and experiences of “rank and status, economic relations, and ... class” (1981:xxx), a means of negotiating social mobility and possibility in situations of potential scarcity. To be “real Elmdon” is to be considered a member of one of the established “core families” of the village, and to have resided in Elmdon for a significant portion of one’s life, usually since birth. The tacit agreement between longtime residents of Elmdon—among them, those who are “real Elmdon”—and various cohorts of new arrivals that such a boundary between real Elmdon and the rest of Elmdon exists stems from shared sensibilities “about aspects of English

society and culture at large” (Strathern 1981:xxx). The notion of real Elmdon “allowed fine distinctions to be made between people with similar status in the overall structure, but who were competing for various scarce resources ... located within the village itself” (Oxford 1981:227; see also Strathern 1982:74). As concrete as the expressions of real Elmdonness seemed in the moments that these distinctions were made, real Elmdon was not entirely fixed: sometimes people who should in theory have identified as real Elmdon identified elsewhere; in other cases, people who might not have met the apparent criteria of real Elmdon were somehow considered to be so. This is not to say that anyone in Elmdon would have been considered (or would consider themselves to be) real Elmdon. Rather, it is to say that the assignation of identities according to the criteria of real Elmdonness—family of origin and place of longtime residence—was more fluid than the very notion of the boundary itself seemed to suggest, and hinged on a number of factors contingent upon the contexts in which identification occurred.

Strathern’s analysis is useful here because it illuminates how modes of location-based identification, so often considered a commonsense aspect of rural communities in the West, can actually be shifters, as has been my experience of place-based identification among Dobbeners. While distinctions between “real” hammrchers and other residents of the hammrch and between “real” villagers and other residents of Dobbe carried signifying force, these distinctions were also flexible, shifting according to the contexts in which they were enunciated. People in the hammrch could simultaneously live as hammrchers and be included in gatherings of neighbors and labor, only then to be told that they were not from the hammrch, or to experience the *sense* that

they were not truly hammrichers. Of interest here is this sense of being simultaneously something and not something—specifically “hammricher” and “not-hammricher”—at a point at which being considered one or the other could spell inclusion in certain forms of capital accumulation and, the possibility of the good life. How exactly does this sense take form, and how is it lived out? Moreover, what are the stakes of being one or the other? How might the question of being a hammricher (or not) be understood in terms not of what it means (and the accuracy of our estimation of it) but rather in terms of what it *does* when it is spoken or otherwise performed? In the next section, I consider how the idiom of the hammrich takes form in everyday situations before placing these designations and distinctions in context with the land reclamation works and municipal reclamation that informed them.

*“We lie below”*

Antje occasionally said things that recalled the comments that Frauke so pointedly aimed at the hammrichers. But the targets of Antje’s statements were not hammrichers per se, but farmers. This is not to say that Antje called them out as entitled in the same sense that Frauke did. Rather, in Antje’s general statements about life in the village and the hammrich, the farmers were the ones who held the most sway over what happened in the village, and who profited the most from its development. Above I recall how Antje stressed how lucrative the farmers’ gains from wind turbines and solar panel installation had been. But beyond direct statements about who stood to gain from the various projects unfolding around the village, Antje’s sense of farmers’ special status came out in

mundane moments and offhand remarks. One afternoon before All Saints' Day, for example, Antje took me to the cemetery in Dobbe, where we tended to her parents' graves. Dobbe's church sits on a hill on the eastern edge of town; to the west lie the red brick houses in the oldest part of the village, and to the east, the hill slopes downward to meet the old village common, today made up of private cattle pastures and the municipal wind park. The cemetery sits on this slope, a garden of gravestones marked by low hedgerows and perennials, bisected at regular intervals by red brick walkways leading down to benches at the foot of the hill. When Antje and I arrived I headed for the older part of the cemetery since her family had lived in the village for several generations. I walked from the small car park up the slope toward the church where the oldest gravestones stood, including towering gothic sculptures from the early 1900s. I was halfway there when I looked back and found Antje near the bottom of the hill, just where the upward slope began. "Down here," she called, holding the wreaths she intended to place on her parents' graves. When I asked her why her parents weren't buried up at the older part of the cemetery, she replied simply, "No, we lie below. The farmers always lie above, where it's dry."

Several months later, after Dobbe's parish council selected a new pastor after the previous one had moved on, Antje brought me the newspaper. "We're getting a new pastor. You see?" she asked, pointing to a photograph of the church council on the front page. "All farmers. They're the ones who choose the new pastor." Antje had already explained to me that during her childhood, the pastor and the schoolmaster were the most powerful people in the village. By pointing out that farming families made up the council

that choose the pastor, then, she indicated that in the village, power lay beyond the figure of the pastor himself, in the hands of the farmers, many of whom Antje indicated were from the hammrich.

I frequently found that the notions of “farmer” and “hammricher” were articulated in common terms, and expressed with similar intensity. When I asked Karl, a friend from the village, about the sense of privilege, exclusion and resentment that swirled around the figure of the hammrich and its inhabitants, he replied, “That’s how it is with the farmers.” He explained that his father Heinz had worked for one of the old farming families in the hammrich before completing his training as an engineer and going to work for a shipbuilding company. Heinz had grown up in Doppersum, eight kilometers south of Dobbe on the other side of the hammrich. After Heinz finished vocational school and started work as an engineer, he drove out in his new car on a Sunday to visit his old boss in the hammrich. As he pulled into the driveway at the farm, he paused to greet the farmer’s wife, who was standing by the side of the road waiting to be picked up for church. When she saw his car, she remarked, “I don’t understand how common people can afford such a car.”

“Common people” as I write it here is a translation from *Lüttje Lü*, an old East Frisian Low German term that can be translated directly as *die kleine Leute* or “little people,” used to denote petit bourgeois or working-class populations. In earlier times, the *Lüütje Lü* depended on the farmers, or *Buur* (in High German, *Bauer*), for work, since farming families theoretically owned all of the workable land around their villages. (Additionally, male farmers who owned their land were the only people allowed to vote

in the area until the mid-19<sup>th</sup> century.) Well into the 21<sup>st</sup> century, the relationship between the *Buur* and the *Lüütje Lü* persisted in local memory as a feudal one (Erickson 1969).

Karl continued, “You never see disabled people in the hammrich. They’re there—one household has a handicapped daughter, and there was one another family a son in a wheelchair. But you never see them. They keep them hidden away.” Karl’s statements cast the hammrich as a space apart, where people are simultaneously so entitled and so out of touch that they haven’t yet realized that class mobility has been transformed since the end of the war, and that liberal subjecthood offers numerous possibilities for citizenship, or so we might think. Through Karl’s words, it is possible to cast the hammrich as a particular kind of “chronotope” (Bakhtin 1981), a nexus of temporal and spatial relations that constitutes a distinctive location where space and time are inseparable from one another. Deanna Davidson (2007) has used this concept in her ethnography of factory workers from the former GDR, where East German notions of “before” and “we” index a chronotope that serves as a fixed location in space and time, allowing people to place themselves in still-unfolding situations. Similarly, in his work on Korowai villages, Stasch notes that the Korowai’s historical sense of their own actions is “grounded in spaces like ‘forest’ and village,’ and it is through such spaces that they live their condition of being in a historical situation” (2013:567). The operative opposition between the hammrich and the village that animates remarks about life in and around Dobbe these distinctions are both reflective and constitutive of lived experience that makes a meshwork of movements into a place. In some contexts, the terms

“hammricher” and “farmer” were interchangeable, and the hammrichers were imbued with the legacy of remembered (and lived) feudalism. To be a hammricher, not only did you have to have spent a significant portion of your life in the hammrich; you also had to be a farmer, or descended from established farming families. Even so, not all of the farmers in the hammrich counted as hammrichers, as I discuss in the next section.

*“You don’t signal in the hammrich”*

More than the things that people said or the places they came from, the things that people *did* also marked them as hammrichers. These movements and gestures made up the idiom through which a sense of community continually re-emerged, providing a set of affordances for participation in the development projects taking place on the outskirts of the village. To leave the house on car, foot or bicycle was to enter into this affective zone, and to perceive oneself as the subject of others’ speculations. Once as I drove Eva and myself to an exercise class in Emden, she chastized me for switching on my turn signal, noting, “One never signals in the hammrich [*Man lenkt nie im Hammrich*].” Otherwise, she suggested, everyone would realize that I was not from around here (since, we both understood, my local license plate code suggested that I actually belonged). And so I learned that the hammrich was not only a space where people were born or wind turbines were built; it was also animated by a place-based economy of gestural driving, both apart from and layered within that which I had observed in Dobbe. I became attuned to the different ways in which people in the hammrich greeted one another while driving on the paved and cobbled roads: typically acknowledging nods with slightly

sidecast eyes, or a nearly imperceptible incline of the head, a noticeably cooler greeting than the waves and smiles that people from the village proper used. With the comments from Eva and others, these gestures became fused with the hammrich in my imagination, a thing made concrete through the conjuncture of forms in motion.

Bakhtin models the chronotope as a “unit of analysis for studying texts according to the ratio and nature of the temporal and spatial categories represented” (1981:426) in a given idiom. As I note above, the idiom of the hammrich was not limited to the things people said, but the things that they did, the stitching together of scenes in everyday life in consistent or at least recognizable ways. To leave the house on car, foot or bicycle was to enter into this affective zone, and to perceive oneself as the subject of someone else’s imaginings. At the same time I knew I was under observation, and wanted to demonstrate my awareness and observation of the grammar of life in the hammrich, I also came to see it as a game, and in some ways it was: an assemblage of miming techniques that animate a place, simultaneously re-bringing that place into being and at the same time becoming woven into that place. Over the months, I learned not to signal as much to play the game as to “pass,” and yet I also knew that, at any moment, passing could become crucial, as the hinge on which the door to any number of opportunities might open or close. For me, these opportunities related mostly to my fieldwork; for others, they could make or unravel livelihoods.



## *Hi-Life*

I had been coming to Dobbe for ten years before I realized that not all its villagers were necessarily villagers, nor all its farmers necessarily farmers. This is not to say that I presumed the village to be a classless utopia, nor that I presumed that all farmers were identical in terms of work and wealth, but rather that I presumed that these categories were safe locations from which to construct an ethnographic frame. This solid ground crumbled away beneath my feet when I found accommodation on farms on the outskirts of Dobbe in 2010. During my search for housing, I was put in touch with the Jonkes, a farming family who had an empty apartment adjacent to their home on the north side of Dobbe, in what Karl called the Dobbenerhammrich. The apartment was what longtime residents of Ostfriesland call an *Elternteil* or a parents' wing, meant for elder generations of farmers to occupy during their retirement as their children took over the farm work. The house and barn were connected by a large brick motor court, where the family parked their large white Volkswagen van. A small stable and storage building were on the other side of the driveway. The entire complex itself was about three decades old, built in the aftermath of the land reclamation. Three of the Jonkes' four children still lived at home and attended high school; the fourth worked at the Volkswagen plant and lived at his girlfriend's house on the other side of Dobbe. The Jonkes hosted the big Easter Fire that the villagers attended each year, and Frau Jonke worked in the village library that adjoined the elementary school.

When I went into Herr Jonke's study one evening to meet him and pay my first month's rent, I saw a wall of shelves filled with black binders, the *Ordner* that every

German seemed to have, multiplied here to the  $n$ th degree on a shelf crammed with farming inventories and tax documents. As we sat together in the study, Herr Jonke and I discussed our respective career training. In discussing my dissertation topic, he told me about the thesis he'd written, one of many criteria in the complex licensing system by which one officially becomes a farmer after vocational school. I had learned from mutual acquaintances that the Jonkes were tenant farmers whose lease was set to expire in four years. Frau Jonke mentioned it to me first, matter-of-factly, and when I spoke of it to Herr Jonke in his study, he agreed that that would indeed be a hard year when it came.

Despite the cordiality of this first meeting, trouble soon arose. Prior to my arrival, the Jonkes had only leased their apartment out to tenants moving through the area on a temporary basis. Most recently they'd hosted a female wind turbine technician for a month, but the woman hadn't needed a phone or Internet, and I clearly did. The Jonkes proposed that we share the phone bill, adding an extra line on their ISDN service so that I would have my own number, and my calls would be easily itemized on our monthly bill. I countered that, as we had discussed when I came to them for the apartment, I required my own phone line and also my own Internet service, since their own wireless was too far to reach into my apartment. The Jonkes stalled, and in the meantime, I traveled to Volker and Regina's house to use their telephone since I had none and the wireless signal was not strong enough to support VOIP communication over Skype. Regina asked me if I would like her help in discussing the situation with the Jonkes, and I took her up on the offer.

We returned together to the apartment. As I unloaded some groceries in my small kitchenette Regina knocked on the door that connected my apartment with the rest of the house. Frau Jonke came to the door and greeted Regina exuberantly, but at the moment that Regina mentioned the telephone, the former became incensed, yelling in exasperation that our expectations were too high. “And it must all go so quickly, eh [*Und so schnell muss das alles gehen*]?” snapped Frau Jonke. I emerged and attempted to resolve the situation to no avail. Regina and I quickly left, and I stayed with her and Volker for the evening. The next night, Volker went with me to discuss the situation with the Jonkes again. We knocked on the door, and Frau Jonke came to the door, telling Volker that Herr Jonke was not available. “We came to discuss the telephone,” Volker replied to her.

“I will not discuss the telephone with you, and the bricks were also too expensive for my liking!” shouted Herr Jonke from somewhere within their house. With the situation still unresolved, Volker and I retreated to his house. There I learned that Herr Jonke’s remark about the bricks as a reference to a prior incident between himself and Volker. The Jonkes and their employees farmed the field next to Volker and Regina’s house, and one day the previous year, he or one of his workers had been out in the field, pulling a large raking machine behind their tractor. Suddenly, a couple of the hooks on the machine went flying across the field and straight into the brick facade of Volker and Regina’s house. “Really, it was lucky that nobody was outside, because at the speed they were flying, someone could have been hurt,” Regina said. She had been at home in the kitchen at the time that the hooks smashed into the wall. Volker contacted the Jonkes and

told them that, if they were willing to pay him a hundred euros to repair the stones, he wouldn't need to report the incident to their insurance. "But he was so insulted that I asked for a hundred euros, he told me he'd let the insurance take care of it," Volker recounted. The move was not a smart one, Volker explained, because it would count against Herr Jonke with the insurance company, and his rates would likely go up because of it. "In reality, the whole thing cost much more than a hundred euros," Regina recalled, "but Volker didn't mind it because he was willing to do the work to replace the bricks himself." It was clear to Volker that Herr Jonke had shown little foresight with his decision, since the appraiser who came out to assess the damages acknowledged that they were considerable. Volker, meanwhile, looked bemused by the interaction we had just had with Frau and Herr Jonke. "Even the farmers don't do something like [what Jonke just did]," he commented, with a sensibility similar to that which Antje had also evoked: even entitled people like farmers didn't treat others like that. Herr Jonke was out of line, even for a farmer.

After the altercation with the Jonkes, and after more attempts to resolve our communications issues (literally and metaphorically speaking), I felt that my position in their apartment was untenable. I made arrangements to live with friends for a time, moved my things out quickly, then notified Herr Jonke via telephone that I would have to reside elsewhere for the remainder of my year in Germany. I told him truthfully that it was clear that my stay had become untenable, and that as it was, it would be better for me to live closer to the wind park. We had signed no formal contract, and doing so would have required them to report their earnings. "They're leasing it to you under the table

[*schwarz*],” one of my acquaintances in the villager said. “There’s nothing wrong with it, many do it. But that’s why they didn’t have you sign a lease, and probably also why they didn’t want to deal with a second telephone contract.”

The Jonkes were known around town for their stinginess. Another friend told me that she’d heard that when Frau Jonke’s eldest son went home to do laundry, she charged him for the water and the use of the machines. After I moved in to the log cabin, Antje was forthright about my disagreement with the Jonkes. “Jonke is not that bright,” Antje replied. “And his wife is crazy. Her own sister worked as a maid in our house in Tergast, and the sister said she was disturbed, somehow.” She told the story of my moving out of the Jonkes’ apartment to all of the neighbors who stopped in, adding, “Jenny told him she needed to be closer to the windmills.” In each case, the mention of Jonke’s name brought rolled and twinkling eyes, or knowing references to the Jonkes and their situation. In these moments, the Jonkes’ inferior position was indexed and sensed out more through jokes and asides than through direct statements. “She once followed me at a party they were hosting,” Hard said, “and told me I’d taken too much food from the buffet. Imagine! You have too much on your plate. At a party!”

In moments like these, there was a sense that although the Jonkes live in an area of town known as the *hammrich*, they are not, in fact, *hammrichers*. They are not *hammrichers* for several reasons: first, because they are not property owners; second, because they are Dobbeners first—he was originally from Dobbe, from a family of Dobbener farmers, and had initially farmed elsewhere upon finishing his licensure as a *Landwirt*—and finally, because their home was on the north side of the village, whereas

the area most identified with the hammrich proper was on the south side of town. But as I have noted above, any of these factors could have been overlooked in a given context, and perhaps they were in various social situations; yet another sense persists in which the Jonkes are not hammrichers, and that is in their relationship to expenditure. In the interactions I mention here, the Jonkes revealed their own discomfort with expenditure in such a way that did not square with localized conventions, opting to use insurance rather than paying out of pocket for the damages to Volker and Regina's home, and policing Hard for the quantity of food he put on his plate. In doing so, both Frau and Herr Jonke openly acknowledged a kind of scorekeeping that takes place amongst virtually all social interactions in Ostfriesland, and also indicated that they were affronted by perceived imbalances in their interactions with others. That is to say that not only were they keeping score; they were also emotionally invested in the score they kept, and willing to protest if they felt they were wronged. Second, their actions indicated a willingness to expend energy on behalf of the village rather than the hammrich, and not on Dobbe's governance, but as part of the village's support structure: from the hosting of the Easter fire that the villagers attended to Frau Jonke's work in the library.

In all of these cases, we may think of the Jonkes' tenuous financial situation, and how this situation and their anxiety about it may have informed their actions. But whether or not their actions stemmed from a place of financial lack is immaterial on the side of those who judge them, because they fail to be mutual in the ways that others in the hammrich expect from their neighbors. This lends itself to distancing in a variety of ways. Surely some of the hammrichers' and villagers' statements were made with me in

mind, performing solidarity with me in the wake of a disappointing outcome with my housing arrangements. But at the same time, the repertoires on which they drew in doing so attested to certain kinds of expectations as to how one should behave, and what this means about one's social position. It wasn't that the Jonkes were poor, but rather how they acted about it. In this sense, while the Jonkes are a farming family that lives in the hammrich, they are not hammrichers. This illuminates another way that I found hammrichness to be fashioned and performed: through social demonstrations of expenditure in the form of celebrations or, as Dobbeners called it, the *Hi-Life*.

*Hi-Life* is a German loan word<sup>15</sup> for high society or “where it's going on,” as a person from the village once said. Most often, people in Dobbe said it about social gatherings in the hammrich, of which I observed and participated in roughly three types. First, there were the large-scale festivals thrown on an annual basis on farmsteads. These public events were almost always organized by the rural youth association, who collected admission from the attendees who came from all around the area. And then there were two kinds of events that were confined primarily to people from the hammrich: gatherings of neighbors that fell under the parameters of the neighbor-help mentioned in the previous chapter—wreath- and garland making, assistance for families of deceased neighbors, and celebrations of significant birthday milestones—and gatherings followed regular meetings of hammrichers, whether oriented to formal organizations like the Land Youth or to the various kinds of circles of which village social life was made up. The

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<sup>15</sup> According to the Duden *Rechtschreibung*, this term is actually spelled as *Highlife*, but in Ostfriesland it is more commonly written (in newspaper advertisements, for example) as *Hi-Life*, hence its spelling as such here.

latter of these three were usually held at farmsteads in the hammrich, and more specifically in the outbuildings around them. When I moved to the Dobbenerhammrich, my neighbors frequented a bar in one of the barns on Bodo Acker's land that they called the *Ghetto-Bude* (in high German *Bude* refers to a small building or hut) or simply *the Ghetto*. (When I asked Antje why they used this name, she replied "like Elvis," then sang the refrain from the Elvis Presley song "In the Ghetto.") A few months after I settled in the hammrich, Heinz and Hannelore (who lived in the village) told me that the Frisian Arms, Dobbe's local pub, had recently been remodeled, and that the hammricher farmer Fokke Harms had bought and installed the pub's old counter at his farm. Confused, I asked if they were actually referring to Bodo Acker's bar. "No, that's a different bar," replied Heinz. "Each of the hammrichers has a celebration hall [*Saal*]." "And there they have *Hi-Life*," interjected Hannelore as she refilled our coffee.

On the face of it, *Hi-Life* conjures a sense of celebration that merges fine dining and Bacchanalian revels, a concept that expands in conversation to denote any situation in which expenditure is evident. The construction of spaces reserved for revelry is one such example. Antje and Hard had not one but two reveling halls on their property. One was a small hut made of wood that contained a large booth that could comfortably seat about ten people. The hut was built by the previous owner on the banks of the stock tank that made up over half of the property. He had used it for gatherings with his hunting club, and his old hunting plaques and pictures of hunting dogs still adorned the walls. When Hard and Antje moved to the farmstead, they built a prefab wooden structure about ten yards apart from the old party hut, large enough to hold a bar and an unfinished



bathroom. The building had no running water, only electricity, which powered an old refrigerator that they kept stocked full of beer, and an old ice cream freezer with a sliding glass top that they never actually plugged in. The majority of the cabin was taken up with two *Biergarten*-style table-and benches, which Hard and Antje supplemented with tables from inside their home when they were hosting large groups of people. During birthday celebrations, or when Hard's hunting club celebrated a milestone, we hauled crates full of beer glasses to the cabin and then back up to the house for washing as a steady stream of hammricks and friends came and went, and the neighboring farmer's son, an IT worker in town, played songs from his laptop on the stereo system. Most of these gatherings were planned well in advance, with partygoers passing cash to Hard to offset the costs of the event.

Sometimes the parties were roving, as was the case when Emmeke, a young woman from the hammricks, celebrated her 30th birthday. A physical therapist at a clinic in Emden who was also the daughter of farmers, Emmeke was highly active in the Land Youth and the hammricks social scene. She invited all of the hammricks to celebrate her birthday at a friend's farmstead, but before the dinner and revels ensued, her guests were expected to assemble in Dobbe to watch her ceremonially clean the doorknobs of the local bank, which served as the ceremonial town center in the absence of City Hall. Following East Frisian tradition, women who were not yet married at the age of 30 were required to clean the doorknobs of the town hall, whereas unmarried men were required to sweep its steps.

This was usually marked by a small gathering of family and friends, as were all other “round” birthdays when people were given a garland or a fir heart for their yard. But on Emmeke’s birthday, well over a hundred people crammed into the small cobbled courtyard in front of the bank to await Emmeke. She eventually arrived to some fanfare (and much horn-honking) on a trailer pulled by a hulking Fendt tractor. The trailer was decked out like a parade float, and I later learned that they had pulled Emmeke down every street in Dobbe. Dressed in a pink tracksuit and a cowboy hat, she sat on a rocking chair, waving to the people on either side of the street until she arrived at the bank, where she was required to use a toothbrush to clean doorknobs that had been screwed onto a board made precisely for that purpose. As soon as she finished polishing one of the doorknobs, her friends squirted mustard and oil onto it anew, requiring her to clean it all over again. Eventually, after the offending substances had been used up, the crowd retreated to the hammrich, where they ate from a catered buffet and danced to a band. I later heard from villagers that their children had run to the windows to see what the commotion was about; upon seeing the tractor and the float, they had remarked, “Oh, it’s just the hammrichers.”

Another example of the culture of expenditure in the hammrich was the celebration of Easter fires or *Osterfeuer*, which set the countryside aglow on Easter weekend. During my time in Germany, Easter fires remained a common sight. Driving across more populated areas of the country, you would likely see small fires burning in most of the suburban backyards up the hills of the Ruhr Valley, feeding into thick clouds of smoke that hung over the horizon. In recent years, many cities and townships

restricted the burning of Easter fires to organizations with special permits. In Ostfriesland, each city or incorporated municipality had its own Easter fire, which was generally put on by village clubs and volunteer fire departments. In the hammrich, though, most farmers lit Easter fires, inviting only a close circle of family and friends. And so it was that the hammrich was lit in shades of umber and gray on Easter weekend. But the Easter fires swirled in the air of the hammrich long before they were lit, as people piled up old furniture and scrap wood well in advance of the holiday in order to throw them on the fire. When I found a wood-frame sofa for ten euros from the thrift store only to find additional furniture for free the following week, Eva told me not to get rid of the old sofa since we could save it for the Easter fire. Her remark surprised me since I had generally found that people in Germany tended to resell their old furniture on eBay or, in cities, to put it on the curb for bulk collection with the knowledge that other people would go through and pick up unwanted furniture for their own uses before the items were removed by municipal authorities. But her statement worked in tandem with the hammrichers' embrace of expenditure: anything to make the fire bigger.

I opted to keep my sofa, but nonetheless celebrated the Easter fires with Antje and Hard. As the day wore on, the hammrich was engulfed in smoke, which was carried by surprisingly high winds. As we prepared for company, hauling a crate of beer glasses to the smaller of their two party sheds, I also helped Antje and Hard drag out their unwanted wood, layering it on top of the old brush they had already piled up in advance. They had five couples over to watch the fires, most of them hunters and their wives. Mieke and Eva were out with friends; Iko stayed home to help Hard at the grill. As the day wore on,

the fire grew so large it threatened a tree on the property line, so Hard built a second one on the other side of the property to keep the first from growing any bigger with the trash they were yet to burn. We dragged rotten wood furniture out of the housebarn's ruined living quarters, and, at one point, Antje brandished a box of old Disney-themed children's books to cast into the flames—too covered with rat urine to save, she explained as she threw them onto the fire. We watched as the books melted into the flames and the smiles of 101 Dalmatians rose into the ash.

I had asked Antje if any of the neighbors would be joining us for the Easter fires, and she replied that each of them had their own fires, which became apparent as the sky darkened with smoke. Each year there were complaints in local and national media about the Easter fires, mainly because of the pollutants in wood smoke and the particulates that block visibility. But they also ran the risk of spreading wildfire. As the evening wore on, Iko was called up by the volunteer fire department because of a runaway fire in nearby Moordorf, where a fire had burned too close to town and the flames had gotten out of hand, swallowing a couple of businesses before the firefighters could stop it. Meanwhile, at sunset, I drove across the hammrich to look at the fires smoldering on the horizon. The spring crops were not yet high enough to conceal them, and so the horizon was punctuated by nodes of red flame that recalled the red warning lights on the wind turbines high above the ground. In some areas, brush had been piled up on the edges of canals—presumably to keep unattended fires from spreading—and these piles were smoldering as I passed by. The juxtaposition of the smoke rising from the horizon punctuated by the glowing red of licking flames and warning lights threw into relief the seeming

contradiction between the culture of expenditure, the burning of the Easter fires, and the promulgation of renewable energy technology as means of zero-sum living. Many renewable energy advocates note that wood can be a carbon-neutral energy resource (“Wood” 2013), but those who participate in Easter fires show little concern for best practices of wood burning, and little desire to harvest the energy for more than social ends. At the same time, to expect that sustainability might be a concern for the people burning Easter fires—the same people who, incidentally, are the most deeply invested in renewable energy development projects—is to presume that all of the people involved in sustainable development share a common sense of what sustainability is. As one German farmers’ union recently stated in response to EU attempts to standardize organic farming, “eco-farming” is not the goal of German agriculture; rather, it is a means to sustaining agriculture itself. Similarly, for people in the hammrich, both the Easter fires and renewable energy projects were infrastructures through which certain social and economic possibilities were maintained and actualized.

*From morass to “the most modern of technologies”*

If the sense that the hammrich is a place of privilege and Hi-Life spins out of the historical legacy of farmer dominance around the region, it has also been recombined and amplified through the land reclamation works that transformed Dobbe and its environs over the past few decades. Until the late 20<sup>th</sup> century, in fact, farmers in the hammrich were among the poorest in the area. This is not to say that they did not possess other forms of capital, particularly in comparison to the *Lüütje Lü* who worked for them.

Rather, it is to underscore that other farmers in the area, such as those who farmed in Dobbe proper, had far more lucrative yields than did those in the hammrich. A morass of waterlogged grass, the Dobbenerhammrich was continually flooded with galloping tides that rendered the North Sea coast “not a coast but a blur,” as Taussig writes of Colombia’s Pacific shores (2004:174). The North Sea coast was less like a series of Gaussian gradations and more like a shifting assemblage of sandbars, rifts and sinkholes that dissolved and reconstituted themselves with such frequency that only the most experienced of local sailors could read their movements.<sup>16</sup> The ferocity of the tides led the medieval colonists of the region to construct a system of dikes that spanned the coast from present-day Holland to Denmark. With the raising of the land came denser population growth and economic development, which in turn heightened the stakes of the devastation that occurred every odd century or so when the dikes were breached by storm floods or, in some cases, by sabotage.

Most of the East Frisian peninsula is made up of three geological formations: marshes, moors and *Geest*, the latter of which are moraines, raised bands of sand and gravel deposited in the wake of glaciers. Dobbe’s earliest settlements teetered on a band of *Geest* that stretched south in a narrow band from Aurich, the old market town at the heart of the *Geest* that is now the area’s county seat. On the eastern side of the *Geest* band lay moorland; to the north and west, moor and marsh; and to the south, more marshes in the floodplain of the Dollart Bay and the Ems. The settlement of Dobbe

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<sup>16</sup> Erskine Childers’s (2011) *Riddle of the Sands* provides a fascinating account of navigating the ever-changing Wadden-Sea. Originally published in 1903, the story is based upon Childers’s own experience sailing around the East Frisian Islands during his youth.

followed the shape of the *Geest* band, a row of tracts that ran from north to south rather than radiating out from the church mount in all directions. By the modern era, per the historical record, the community had grown from a row colony of peat-cutters, subsistence farmers and marsh fishers to a village with two commonly-defined classes: those who owned farmland and those who did not—the *Lüütje Lü*. The latter included farm laborers as well as craftspeople and merchants. Dobbe's early spatial distribution also recalled the general distinction between farmers (conflated with landholders, although tenant farming has taken place in the area for centuries) and workers: on the western side of the *Geest* band lay individual homes and businesses; on the east side, a row of farm tracts stretched from the height of the *Geest* as far eastward as the farmers were able to cut away the encroaching moor.<sup>17</sup> Driving up and down Dobbe's main road, which runs along the original swathe of *Geest*, this division was apparent in the old farmsteads that lined the eastern side of the street: one still working, one fallen in, and several repurposed for other ends, such as a bed and breakfast and a workshop.

The Dobbenerhammrich was once an assemblage of smaller settlements that connected through Dobbe as a center of trade and worship. Well into the 20<sup>th</sup> century, the farmers of the hammrich lived at a remove from the village itself, isolated by waterways and lowlands prone to flooding. As one 18<sup>th</sup>-century commentator wrote of the hammrich, "Even in dry winters ... everything looks similar to a lake, out of which the houses raise themselves... [they] stand so low that, although they are laid upon

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<sup>17</sup> Farmers in early modern Ostfriesland were allowed to claim as much land as they could cut away from the moor until Frederick the Great instated the *Urbarmachungsedikt* of 1765, which stipulated that all lands yet to be claimed in Ostfriesland were the property of the Prussian crown (Meyer 2008).

wharves, the water reaches into the cattle stalls” (Arends 1824:137). By the early 20<sup>th</sup> century, thirty-one small pumping stations had been installed across the hamrich, with 50 windmills working to drain its farms and pastures. Nearly 80 percent of these fields were grasslands, but the plants that grew there were not suitable as feed crops for the milk cows that came dominate Frisian agriculture during the 19<sup>th</sup> and 20<sup>th</sup> centuries. After Frederick the Great claimed unsettled areas of Ostfriesland for the Prussian crown, farmers were encouraged to cultivate the fens and polders east of Dobbe in exchange for six years of free tenancy, but their options were confined to buckwheat, which offered limited long-term rewards (Meyer 2008).

Elsewhere in Ostfriesland, north of the port town of Emden, polders had been successfully converted to farmland in the early 1900s through the introduction of silt from the mouth of the Ems River onto the land. Known as *Schlick*, the substance was produced through the ongoing dredging of the Port of Emden, which sits roughly 14 kilometers west of Dobbe on the eastern side of the Dollart Bay, which spans the (still-disputed) border between Germany and The Netherlands. Upon expanding the port, harbor workers found that newly dug areas continually backfilled with silt from the mingling waters of the Dollart, the Ems and the sea, necessitating the continual removal of silt from the bottom of the harbor. As the polders north of Emden filled to capacity with copious amounts of *Schlick* still to come, farmers from the Dobbenerhamrich proposed a similar undertaking in the marshes that spanned south to the Ems and west to Emden. As negotiated by the farmers, the Port of Emden and the Doppersum Water Board (DWB), the hamrich was divided into four sections to be raised over a period of



50 years. Each section included 10 to 20 hectares of drainage fields, themselves arranged according to preexisting paths and bodies of water. The old lake called the *Dobben* was the first area to be raised, and it was here that the Adlers built their plant nursery in the late 1960s. Landowners in the hamrich agreed to reduce their tracts by a small percentage to make way for farm roads, drainage ditches, wind barriers and wooded fields.

The harbor authority and the DWB constructed a propulsion operation with three different segments, from pipes on scaffolding to pipes that ran along the ground, able to be moved from one field to another to distribute the silt at the same time that pumps sucked away the excess water in the area. Midway along the pipeline lay a pumping station with a catchment basin. The reclamation process was more or less uniform in each section to be raised. The mud was pumped into each section over a period of about two years, then left to ripen and dry, hardening, cracking and crumbling into soil. Eighty-five acres were treated per year, with 50 years of drainage planned in total. Each area was washed over with small amounts of silt around 50 times over. A network of drainage fields, canals and return pumps conveyed the brackish water into the nearby Ems and Jade canal, and away from still-operating farms in the vicinity. At the completion of each section, roughly one meter of mud covered the lowlands, salting the wetland biome and all of the lifeways entangled in it.

The mudflow first sputtered to life on April 21, 1954, when the silt was shunted through the pipes for the first time. At the pumping station, to the workers' surprise, the bloated corpses of four sheep poured out of the pipeline and onto the catchment grill,

unfortunate victims that had sought shelter from a storm the previous summer, only to be sucked into the pipes by the digging chute. They were not to be mistaken as a heathen offering, but were rather unfortunate victims of the most modern of technologies (Brandt 1987). Charged with the broader mood of Germany's postwar economic miracle, the *Überschlickung* or "over-silting" is commonly framed as Dobbe's leap into modernity. "Imagine," Antje said to me one day as we drove the eight kilometers from Dobbe to Doppersum, "before the *Überschlickung*, this ride once took my grandfather four hours by bicycle, one way. He was a cobbler in the village, and he made all the shoes for the farmers in the hammrich. He rode to Doppersum once a month to buy the leather to make the shoes." Today the same route takes 25 minutes by bicycle, and ten by car. Antje and others who watched Dobbe's environs transform over the years speak of the *Überschlickung* as if it were a skyscraper or another feature of the built environment, like a wonder of the world. For all those who grew up in Dobbe during the *Überschlickung*, the site of drainage fields and fallow zones was the norm, as was the mingling of technical practices old and new, with women carrying buckets of water from the village pump in view of the scaffold that conveyed the silt from Emden to the surrounding farmland-to-be. One villager told me how he and his brothers ran around the remnants of a pond after a day of pumping. You could pick up the fish still twitching after the water had been sucked away to the Ems-Jade Canal.

For Dobbeners, *Schlick* was the medium through which the village entered into Germany's economic miracle, because it created solid ground where marshes and meadows once stretched as far as the eye could see. The tar-black fields of hardening silt

were punctuated with saltwort, clumps of green on the slowly cracking earth. As the hardened silt crumbled into arable soil, the hamrachers who worked it were well placed to capitalize upon the rise of agribusiness, which favored large-scale cultivation over the practices of animal husbandry that the majority of farmers around Dobbe had previously practiced. But *Schlick* and its continuing transformation ultimately spelled the premature end of the *Überschlickung* as officials at the harbor authority ascertained that the substance could better serve their interests if left in place.

The term *Schlick*—commonly translated as mud or silt—denotes a form of sediment composed with a majority of clay, if not necessarily hardened clay. The mud from Emden’s harbor had a high mineral content, with at least 92 percent of its volume made up of clay, rock waste, and sand, and the remainder comprised of organic materials. More broadly, though, *Schlick* refers not to mud with a particular content, but rather to mud as form itself. It is one of the forms taken by the mud flats of the *Wattenmeer* or Wadden-Sea, the UNESCO-recognized intertidal zone that lines 500 kilometers of North Sea coastline from the Netherlands to Denmark. The Wadden-Sea is a zone in constant flux, with landforms shifting according to the movement of the tides; here the mud is called either *Schlickwatt* or *Sandwatt*, depending on whether it is more aqueous or firm. *Schlick* mudpacks are a centuries-old remedy for a variety of ailments, ranging from asthma to skin conditions, frequently prescribed to patients on insurance-subsidized rest cures. And in the 1980s, as the port of Emden was privatized, its management looked to previously unrecognized properties of *Schlick* itself in order to reduce dredging costs—namely, the ways in which the *Schlick* could be left in place for the benefit of harbor

operations. They concluded that when allowed to remain suspended in water, the *Schlick*—now called “fluid mud,” using English parlance—tends toward a state of equilibrium, born of the density of river sands and microbial slime and pooled with the North Sea tides.<sup>18</sup> An analysis of the material revealed that the same quality that made the mud relatively easy to pump onto the plains of the Dobbenerhammrich also made aqueous *Schlick* an excellent conductor of ship traffic at the entrance to the port. In 1991, the state of Lower Saxony intervened to stop the *Überschlickung* on these grounds, and the port of Emden has used a site-specific dredging system since the late 1990s, oriented to sustaining this equilibrium of organic and inorganic materials.

By the end of the *Überschlickung*, one hundred million cubic meters of mud had been pumped onto the fields. Of the projected 4000 hectares to be reclaimed, roughly 3000 were successfully completed. Eighty-five drainage ditches were built, seventy-five kilometers of farm roads were constructed, ten bridges installed, 65,000 trees planted, and 65 acres of agricultural land were created on the site of old creeks and rivers (Bürgerverein 1993). Despite disenchanted letters to regional newspapers about the early termination of the project, by and large, a mythos of manifest destiny congealed amongst the hammrichers around the historical figure of the *Überschlickung*, a sensibility that at once absorbed and obfuscated the more complex developments taking place in

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<sup>18</sup> “As paradoxical as it may sound,” wrote a hydraulic engineer from Emden’s harbor authority, “it is just this high concentration of solid particles that prevents the formation of extensive sediment accumulations that become impassable for ships; it is the high biogenous fraction that delays or even prevents these solid particles from settling” (Wurpts 2005:24). This example is yet another case of aqueous microbes working as a medium for thinking about the world (Helmreich 2008a); moreover, its commercial value now lies in its ability to be preserved in an interstitial state between liquid and solid rather than its ability to be dried into silt and converted into soil.

agricultural science and industry across Germany, and their effects on practices and social alignments in the village. But perhaps most importantly for the purposes of this project, the *Überschlickung* and its materials worlded the hammrich as a space apart from the village even as it also provided grounds for the expansion of the village. New settlements cropped up on the north side of town and an industrial zone expanded along the southern road to Doppersum. To the west, the Adler family built their plant nursery on the site of a former swamp. Farmers who sold off their tracts for residential development gained lucrative amounts of capital, and continued to exert influence in village affairs, known to Antje (and others) as “farmers” in the parish council. The rise of agribusiness compelled farmers to take on ever-increasing numbers of milk cows to stay competitive at the same time that the majority of farmers in Ostfriesland began to rely on cultivation as much as dairy production. In Dobbe, village farmers had little possibility of expansion given the limitations of their tracts. By the 21st century, all but two of them had shuttered their farming operations, or moved on to work for other larger landowners. Some of their old barns were left to rot or converted into rooms to let, or sold off as tracts for more houses. A shift occurred whereby the concept of farmer and hammricher increasingly overlapped in connotation if not always denotation. In this frame, what has previously been considered a commonly expressed resentment against farmers on the part of former farm workers and their descendants in Ostfriesland was compounded by the sense that farmers in the Dobbenerhammrich are awash in money and high on the Hi-Life.

At roughly the same time that these shifts occurred, Dobbe and its surroundings communities were incorporated into the greater municipality of Walder, which was invented virtually overnight through West German territorial reform. While this development was far less physically tangible than was the *Überschlickung*, it nonetheless constituted a profound transformation of Dobbe’s built environment with repercussions for development in Dobbe.

### *The rise of Walder*

In the early 1970s, as the *Überschlickung* moved toward its third decade, authorities from the county of Aurich moved to incorporate Dobbe and other villages in the immediate vicinity into a new municipal entity. The move was part of a larger process of incorporation taking place across West Germany (and, after the reunification, in the former East German states as well) as part of the *Gebietsreform* or Regional Reform, which shrunk the number of German municipalities by 65 percent, from 24,357 to 8,518 (Mecking 2012). In 1972, twelve independent communities were gathered together into the municipality of Walder, its name taken from the large forest that stretched along the eastern boundary of the municipality. Within the forest itself lay the remains of a 13<sup>th</sup> century Cistercian monastery, and alongside the western rim of the forest, an entirely new community was built to house the county seat. The community of Walderfehn consisted of a city hall, grocery stores, a high school, and an artificial lake, a planned community constructed from the ground up within a span of a few years.

Prior to the incorporation, each of Walder’s communities had had their own mayors. “Our mayor here in Dobbe should have done better, since we were the largest village of them all,” Hannelore said to me one day. Now in her sixties, Hannelore was born in the days before the *Überschlickung* and lived in Dobbe all her life. She mentioned the incorporation while explaining how a different school system had existed in the village prior to the communal reform. Before 1972, she explained, children from the village attended the village school until high school, at which point only a few children continued on to the *Gymnasium* in Aurich, and the rest of the children were sent to vocational school. After the formation of Walder, however, children were divided into two groups: those who would attend the *Gymnasium*, and those who would attend either *Haupt-* or *Realschule* in the new school building in Walder. This change also impacted the children of farmers in the Hammrich, who despite their wealth could not assume that their children would attend *Gymnasium* as had farmers’ children in prior generations.

Among other consequences, the municipality now controlled the official channels through which development projects would be proposed and licensed. It was the municipality of Walder that licensed the construction of Dobbe’s wind park, which was alternately criticized as an instance of profiteering on the part of Walder’s mayor, who had connections to the project, and praised for municipal authorities’ stipulation that area development projects be headquartered locally in order to ensure that tax revenue from the projects wouldn’t flow away from the municipality (Puchert 2010). Moves such as this, and the christening of the wind park as the “Walder Wind Park,” give the impression that the revenue from these projects directly benefits the municipality. Yet few who live

in the immediate shadow of the wind turbines—those in Dobbe and in the other small villages across the hamrich from the wind park—profit from them directly. The majority of park’s turbines are owned by Energo shareholders, and administered by Energo technicians based elsewhere. A few of the turbines within the park are owned by a collective of "local investors" that is known as the Citizens' Wind Park of Wälder.<sup>19</sup> but Dobbeners are generally ignorant of this distinction. In an area where communities like the hamrich furnish the idioms through which belonging and participation is communicated, the municipality's claim to the wind park earns little mention in the comings and goings in everyday life, unlike solar power, which was (theoretically) available to anyone (who owned a house with a viable roof and enough capital to secure a loan for solar panel installation).

When I was living in the hamrich in 2011, the wind park and the municipality were preparing to expand the park to the east and to the west, and meetings were held among those in the immediate vicinity of the planned construction sites to ensure that citizens’ concerns were addressed. Yet these meetings were not publicized in the wider communities that adjoined the construction sites. For most Dobbeners, mentions of the meetings popped up in the local newspaper after the fact. The meetings took place on a neighborhood-by-neighborhood basis that failed to account for the received geography of the area. These practices kept area residents at an arm’s length from developments taking

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<sup>19</sup> Although Wälder’s wind park is not municipally owned, the suggestion of a “citizens” wind park recalls the civic wind parks that have been embraced elsewhere in Germany (Krauss 2010).



place on their doorstep, developments that were carried out by a select few area farmers in corporate partnerships and municipal alliances.

One unfortunate result of this situation was that some willing investors were excluded. In the summer of 2011, Antje told me that she was avoiding Insa, an old friend who was originally from the hamrich, because Insa had promised to let her and Hard in on the next investors' meeting, only to leave them out when the time for the meeting came. Antje's pride was too great to ask Insa why she hadn't called. For Antje, Insa's silence spoke for itself. But the way that Antje spoke about the situation to me was illuminating, in the sense that Antje did not use the idiom of the hamrich to articulate her frustrations. It was rather the farmers who were the focus of her ire, and by extension, the municipal authorities who failed to make investment opportunities available to more of the municipality.

It is impossible to say whether wind park authorities purposefully capitalized on preexisting social divisions in the ongoing implementation of the project. But the procedures by which municipal authorities licensed renewable energy development—and more specifically wind turbine installation—built upon and compounded ontologies of place that had sedimented in the area over the preceding decades, where hamricher business was the provenance of hamrichers, despite the fact that it directly involved the sensorial plane of others in neighboring communities and was billed as benefiting the general citizenry.

### *Hammrich Incorporated*

As Stasch has noted, village formation is a watershed event in diverse world locations but rarely a focus of analysis for a number of reasons (2013:555). Yet cases such as this one illuminate how even “old” villages are continually being made “new” (to use Stasch’s parlance), recombining prior ways of life in ways that compel closer attention. For Dobbeners, the land reclamation and the incorporation of the village transformed the built environment and gave new valence and intensity to some categories of understanding, while sinking others into obscurity. While the municipality suggests increased representation or cooperation in a given area, it also leads to a redoubling of the fissures between neighboring communities. The successes of the economic miracle suggest that Dobbe’s former *Lüütje Lü*—who some might call “villagers”—now have enough capital to invest in renewable energy projects in their midst, or to contest them or otherwise see them as their own provenance. Yet the consolidation of the municipality placed villagers at a remove from the projects taking place in their midst, particularly since the staging areas for these projects were located exclusively in the hammrich, the land of the farmers.

In an afterword to the study of Elmdon mentioned above, Frances Oxford (1981) notes that nearly two decades after the conclusion of the Cambridge research project, the distinction between “real Elmdon” and the rest of the village had morphed into one between villagers and commuters, reflecting two general kinds of lifestyle pursued by people who lived in Elmdon. For Oxford, this meant that notions of birthplace had waned in significance among Elmdoners in the years since the Cambridge study

canvassed the community. Regarding present-day Dobbe, one could advance a similar argument regarding kinship categories and the shift in livelihoods that has taken place in the area since the end of World War II. With the rise of industrial, white collar and service industry labor in nearby towns that are infinitely more reachable than they were half a century ago, as well as the transformation of agriculture with the rise of agribusiness, Dobbeners from the village and the hammrich find commonality in ways that would have been unimaginable in the mid-20<sup>th</sup> century when the land reclamation works began. And yet, the categories of “villager” and “hammricher” and the sense of entitlement that swirls around both the figure of the farmer and the hammricher persist in the economic initiatives taking place around the village proper. This is not to say that those who might be classed as villagers are not entitled or capacitated by the energy transition or other social projects taking shape in Ostfriesland. Rather, it is to say that they are capacitated differently by these projects. The forms of investment and capital that are available to them are different than are those available to people of the hammrich, wherever they might happen to live. The old hunter who owned Antje and Hard’s farmstead, for example, had only one daughter, and she worked as a doctor in Hamburg. But as a hammricher, she was invited to invest when others in the area—such as Antje and Hard—weren’t. Notions of hammrichness were shifting but no less forceful in social situations than they were in development projects. The hammrich was as an object and an idiom through which people could position themselves relative to the various possibilities for capital accumulation around Dobbe—whether the capital in question might be glossed as financial, symbolic, cultural (Bourdieu 1984), or something else.

When several farmers from the hamrich banded together to install a €3 million biogas plant on the south side of Dobbe, they named the company they founded to front it “Hamrich Incorporated,” claiming Ostfriesland’s newest form of renewable energy technology for the hamrich. If the wind park was the purview of the municipality and solar panels that of citizens, then biofuel was the provenance of the hamrich, securing the perpetuation of the hamrich as a locus of capital dreaming and accumulation.

### *Conclusion*

If transformations in Dobbe's built environment gave rise to seemingly new ways of feeling historical (Berlant 2008b), they also recombined modalities of making, feeling and trafficking with power, from the generation, distribution and consumption of energy to new forms of governmentality, as well as ways of thinking about power and experiencing powerlessness. The land reclamation works and municipal incorporation recombined preexisting spatial and social distinctions into new lands for habitation and cultivation, sometimes quite literally so. As discrete and yet fluid aspects of the built environment, these labile infrastructures were woven into and from physical spaces and the movements that make them up. The ontologies of place that emanated from them exerted infrastructural force upon Dobbeners’ actions and perceptions. These distinctions were not explicitly referenced or delineated in conversation as much as they were evinced in everyday life by the referential practice of Dobbeners. More specifically, these infrastructures were implied in the distinctions that Dobbeners made between farmers and non-farmers, tenants and landowners, bourgeois liberals and something else—all of

which frequently collapsed into an opposition between villagers and hamrachers. Dobbeners' continued use of these terms indexed their living out of history and the vernacular theories of power that they spun out of the unfolding situations with which they were continually confronted, even as these situations were grounded in the natural history of a place. Lived distinctions between hamrachers and villagers indexed ontologies of that place and fed the imaginaries through which politics and participation did (and didn't) take form. While these distinctions are not consistently articulated in terms of shared experience or interests, they nonetheless have implications for everyday life and politics in ways that recall earlier theories of class consciousness (Thompson 1963:9,194).

The findings presented in this chapter set the stage for the substantive chapters that follow, in that they sketch the recent history of Dobbe and the social distinctions that emerged from that history. In turn, these distinctions would shape renewable energy development in the area and the conditions of possibility for people's participation in it. The data presented here compel us to consider how current cultures of renewable energy development may sediment into the natural history of the future. They also offer several provocations for the study of renewable energy development and its class politics, fracturing the seamless image of a sustainable village into numerous fragments that are all infrastructures of the current energopolitical moment, even if they work to the advantage of some at the disadvantage of others. They also point to the importance of materials and materiality for making sense of how technoscientific projects unfold *in situ*. In the ooze of the land reclamation works, as in the bloodless redrawing of boundaries

between Dobbe and Walder, we may trace the convergence of various factors that are now taken for granted, part of a vibrant natural history that haunts the countryside even as it thrums in obscurity.

### Chapter 3: Working Waste

#### *Waste and the energy transition*

The previous chapter considered the ontology of place through which Dobbe's energy transition has taken form by attending to recent material transformations in the area. In this chapter, I consider how various local practices of waste making, marking and management—which I abbreviate here as waste work—constitute sites of participation in the energy transition and its supporting industries, if sometimes unacknowledged as such. Here waste is a catchment, a nexus of everyday practices that intersect with the industries of the energy transition, which allows me to consider the different forms of value that inhere within these practices. After a general discussion of the legal and conventional terms by which waste is ordered in contemporary Germany, I consider how Dobbeners' relations to waste have changed in recent decades by examining two types of waste work around the village: the mundane practices of trash sorting and composting in East Frisian households and East Frisian farmers' uses of animal wastes. By exploring experiential and economic dimensions of waste management in Dobbe, I wish to hold a broader sense of the commodity chains that converge there in tension with the material practices that inhere at this point of convergence, namely ordinary life in a northern German village, and the attunements to which these practices give rise. Like the various forms of silt discussed in the preceding chapter, the multiple instantiations of waste I describe here allow me to consider how the

unstable but persistent “objects of capital” (Maurer 2000:690) congeal through everyday practice as well as through policy and planning.

With the rise of environmental governance in Germany, federal legislation demanded that waste be converted to something other-than-waste, rendering it into a means of capital accumulation as industries proliferated in order to meet this demand. Concomitant with the spread of industrial waste treatment practices was the rise of technoscientific projects aimed at optimizing the treatment of waste to prevent the release of harmful greenhouse gases like methane, ammonia and hydrogen sulfide. Long used as a source of energy in small-scale settings, waste has also become a key site of renewable energy development as new systems and technologies are marshaled for the combustion of compost and animal waste to produce carbon-neutral electricity and thermal energy. While the energy transition is ostensibly oriented to reducing the presence of wastes in the biosphere, certain sectors of the renewable energy industry depend on these wastes’ continued production. In a sense, the biomass projects of the *Energiewende* recall the seeming paradox that Marx detected at the heart of capitalism: as the efficacy of its circulation increases, capital encounters less of the “friction” (Marx 1904:140) through which it attains value (see also Marx 1993:539), necessitating the expansion of production into other zones of life.<sup>20</sup> In the biofuel economy of 21<sup>st</sup> century Germany, industries oriented to the mitigation of waste (but dependent on waste’s continued production) proliferate in part through the creation of new spaces of regulation, consumption and production which provide the points of friction for the production of

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<sup>20</sup> This reading of Marx is partly informed by Gayatri Chakravorty Spivak’s defense of his labor theory of value amid the rise of “micro-electronic capitalism” (1985:82).



value, from the fermentation of microbes to the performance of environmental audits, often at the expense of preexisting markets and lifeways in the path of industrial expansion.

The industrialization of waste has led to the crumbling of other markets as speculation has made waste more profitable than established agricultural cash crops and other exports. In one set of examples, recent protests against EU agricultural policy highlight how such mutations of value have thrown the European dairy industry into chaos. In November 2012, hundreds of farmers from France, Germany, Luxembourg and the Netherlands drove their tractors into Brussels to spray thousands of liters of fresh milk at the European Parliament, where agricultural ministers had convened to discuss the reform of the Common Market Organization. Sponsored by the European Milk Board, the action was intended as a protest against high milk quotas and low milk prices across Europe. The protesters blasted riot police and the parliament building with a high-pressure hose that made the milk froth like soap suds as it splashed onto the glass walls of the façade and pooled in the street. After exhausting their milk supply, they lit hay and tires on fire, symbolizing the destruction of their silage and their livelihood due to an imbalance between production costs and market prices.

Such demonstrations are a frequent occurrence in Brussels. In 2009, over two thousand farmers blockaded EU headquarters and showered the surrounding streets with milk and manure. (One image from the protests shows a farmer spraying a riot police officer in the face with milk from a cow's udder.) In the spring and fall of 2013, organic farmers, other agricultural workers, unions, and citizens' groups gathered to protest the

pan-European regulation of seeds and the continued imbalance between milk prices and production costs. The protest was linked online via hashtag to Blockupy, a German incarnation of the Occupy movement, as well as to other European anti-globalization groups. All told, these demonstrations have had little discernible impact on the deliberations of EU ministers. As of this writing, the ministry has not lowered milk production quotas, nor has it reevaluated legislation that disproportionately favors agribusiness. Yet these incidents illuminate the transformations of value taking place across Europe, where liquid manure is more profitable an enterprise than milk, and life is marshaled in the service of markets at a time when ordoliberal logics suggest the opposite is true. In the pages that follow, I explore how the shifting valuation of waste registers in the sensorium of Dobbe and its environs, and consider the different ways in which Dobbeners are becoming waste workers in the service of these growing industries. I examine different locations where waste is worked and worlded around Dobbe in hopes of rendering a sense of the ambient conditions that emanate from these practices, as well as of the friction generated by coexisting yet divergent orders of waste production and processing in everyday settings.

### *Defining waste*

By waste I mean *Abfall*, the formal term for refuse. In everyday conversation, *Abfall* is more or less interchangeable with *Müll*, the colloquial term for trash or garbage. *Abfall* can be literally translated as “fall-off,” as that which has fallen or dropped off of something. In technical terms, an electrical current that has been de-energized is

considered to be *abgefallen*. *Abfall* is, in other words, the state of something devoid of value, use or animacy, something that has come to a halt or ceased to exert or conduct force in a circuit of exchange. To reach back to the land reclamation works for an example, silt from the mouth of the Ems became *Abfall* in a dual sense during the expansion of the Port of Emden. The silt was quite literally removed from the circulating milieu in which it was formed, the mingling currents of the North Sea and the Ems. But it was also *Abfall* to the harbor authority and its staff in the sense that it was an impediment to the expansion of the harbor, matter out of place in the world of midcentury harbor management. *Abfall* is a shifting category used to identify matter out of place, modified with prefixes according to the types of matter in question and the means with which they are to be dealt, such as *Bioabfall* (compost) or *Grünabfall* (plant and lawn clippings). According to German literary scholar Dietmar Schmidt (2001), the connotation of *Abfall* with refuse coincides with the rise of modern society, where metaphors of agricultural or social castoffs came to be connoted with waste in industrializing societies.<sup>21</sup> Since the economic miracle—and particularly since the rise of environmental governance in the late 20th century—*Abfall* has become an object and a catchment of German environmental governance with the implementation of multiple forms of “waste legislation” (*Abfallrecht*) under the oversight of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety. German waste

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<sup>21</sup> Schmidt points to the Grimms’ definition of *Abfall* simply as the “process of falling down or the state of having fallen down” (the Grimms point to the examples of leaves in autumn, chaff from wheat, or Lucifer after his expulsion from the angels) as evidence that the concept of *Abfall* only became widely identified with trash or waste in the late 19th century, after the Grimms had completed their dictionary.

legislation is assemblage of laws that delineate forms of waste and rate them in terms of their potential harmfulness to the environment, stipulating various means by which they are to be removed and the parties responsible for their removal.

Perhaps the most far-reaching of these laws is the *Kreislaufwirtschaftsgesetz*, Germany's basic recycling law, which mandates the environmentally sustainable disposal of refuse. Implemented in 1994, the recycling law works in tandem with the Packaging Ordinance of 1991, which requires those who produce or possess waste materials to ensure that these are processed in such a way that damages to local ecosystems are minimized, without depleting natural resources. The law is famously responsible for the institution of the Green Dot system, a trademarked system that enables manufacturers to provide for the recycling of packaging from mass consumer goods in parallel to preexisting municipal waste removal systems. A dual system of waste removal emerged by which these materials were processed by corporate-run recycling programs, while other forms of waste like paper, compost and landfill were carted off by services administered by local municipalities. (As I note below, all plastic or aluminum packaging that bears a Green Dot symbol can be thrown into the same receptacle for removal by privately contracted waste removal companies.) Subsequent federal and state legislation has also streamlined and consolidated the processes by which other materials such as paper, glass and compost are removed from households and processed, paving the way for ecocapitalist ventures to turn these forms of waste into new commodities, leveling them up into new strata of circulation. In theory as often in practice, the basic

recycling law compels all residents of Germany to become waste workers, orienting their domestic sphere toward the sorting and disposal of multiple forms of trash.

*Everyday infrastructures of waste management*

In communities like Dobbe, everyday technologies of trash sorting recombine prior practices of waste management at emerging scales of circulation and exchange. Numerous commodity chains converge in ordinary places, where rituals of value conversion turn these objects into forms of waste that allows for their transmutation into new commodity forms. This has always been so, and the scale and scope of these commodity chains have always been shifting and recombinant. Canal construction during the modern colonial period facilitated an increase in the speed, frequency and media of exchange between Germany's cities and rural areas. Likewise, the *Überschlickung* and subsequent development made it possible for commodities to flow in and out of Dobbe at still greater speeds, whether by automobile or by power lines.<sup>22</sup> What is different about the current moment is that the federal (as well as state and supranational) waste legislation reduces the ability of those who make waste to control its use, to consider what happens to it after it leaves their possession or how it might be put

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<sup>22</sup> This is not to say that the movement of materials through Dobbe has always only increased, sped up or expanded over time. With the emergence of new media for and scales of circulation have come the erasure or the problematization of other modes of exchange. Additionally, the development of new pathways for exchange heightened the stakes of unpredictable events such as storm floods, but also wars and occupations, which could delay or halt the flow of goods in any number of ways, often with catastrophic effects.

to other uses. At the same time, this legislation opens a space for the commodification of that waste beyond the context of its making.

This is not to say that, were Dobbeners to exercise more control over their waste products, they would capitalize on them in the same ways that current waste management industries do. Rather, it is to suggest that they might otherwise consider waste objects as objects to be exchanged or put to other uses. Many things that are currently deemed to be waste have long been considered useful despite having exhausted their primary or intended uses. In Dobbe, material remnants like compost, metal, glass and old paper were once used for a variety of purposes or, in some cases, sold for scrap. Cast-offs were conserved to make life easier when it came to gardening and canning preserves, repairing things or even creating added layers of insulation in winter. (In the early 20<sup>th</sup> century, some Dobbeners lined the inside of their coats with newspapers to keep warm. When the newspapers were spent, one presumes, they were composted or burned.) Materials like these piled up in barns, sheds and storage areas, their uses long established and yet open to improvisation as needed.

In the wake of the war, the economic miracle, the *Überschlickung*, and the liberalization of international trade, among other things, Dobbeners were inundated with stuff, a proliferation of commodities and of new forms of waste. Waste came in the form of packaging from mass produced goods and increasingly disposable items, but it also registered as a spectral force that swirled around people like a threat. Those who had lived through times of privation were aware that any increase of plenty simultaneously raised the stakes of potential loss. While popular media nostalgically paint the economic

miracle as a time of heady optimism and national rebirth, this period also coincided with the nationwide retrenchment and refinement of domestic practices designed to preempt *Verschwendung*, or wastefulness. Oriented to the management and mitigation of waste, these domestic practices served as infrastructures for the implementation of recycling laws at the turn of the 21<sup>st</sup> century.

### *Sites of everyday waste making and management*

For the East Frisians that I know, the making and sorting of trash is distributed between the kitchen and storage room, the latter of which is called an *Abstellraum*. The *Abstellraum* is a genre within the many arts of homemaking that attained a certain formal consistency in the aftermath of the Second World War, as concurrent experiences of lack and plenitude mingled to produce a space of domestic order and regulation. I have written elsewhere of the *Abstellraum* as a kind of growing-in to this period of speculative plenty, where the possibility of having led many to take intricate precautions against the possibility of not having, particularly among those who negotiated the transition from wartime to *Wirtschaftswunder* (Carlson and Stewart 2014). I repeatedly encountered *Abstellräume* from my earliest days in Germany, as my friends and family and I helped each other with cooking and cleaning during our gatherings. But I first began to consider them as curated spaces of making when I helped Elfriede Adler clean out her mother's *Abstellraum* after the latter's death in December 2000.

Oma Paxtum, as we called her, was a charming and calculating woman. We called her Oma Paxtum because she was Elfriede's mother and Paxtum was her village,

located across the Dobbenerhammrich from Dobbe. She gave birth to Elfriede before the war and parented the baby alone while her husband was imprisoned on the Russian front; when he returned, he worked as a rail engineer and she as a homemaker. They built a house in a new settlement of tract homes where Paxtum met the Dobbenerhammrich, and there they lived until he died in 1991. Several years later, when Oma was diagnosed with breast cancer, she moved in with Elfriede, who drove her back and forth to visit friends and attend church in Paxtum each week. Oma dominated Elfriede's household, commenting on everything from the length and frequency of people's showers to the amount of food that they consumed. More than once, she hid food from unwelcome guests so that she would not be compelled to share it with them, particularly if she felt that a guest was taking too much of something she valued. Later, she would send us into the living room to a 19<sup>th</sup> century hutch made of dark-stained wood, where we would find the jars of Nutella or boxes of candy that she didn't want the guests to see.

When her cancer metastasized for the final time, suffocating her, Oma was buried in Paxtum. At her funeral, the hard wooden pews of the Paxtumer church were packed with funeral goers that followed her casket to the cemetery. After the burial, we caravanned back to her house to sort through her things. The house still felt lived in, with pictures and knickknacks bursting out of all corners of the walls and cabinetry. Our main goal that day was to clear out Oma's cellar, which you reached by descending a rickety staircase off of the kitchen. As in many other homes built in the years after the war, the cellar space was devoted primary to oil drums and a system of pipes that made up the house's heating system. Just at the foot of the stairs, however, stood another power



center: Oma's *Abstellraum*, which was comprised of several rows of floor-to-ceiling shelves, with one small window near the low ceiling through which the day's waning light filtered. Lined with local newspapers dated up to the mid-1980s, the shelves were stacked high with home-canned jars of beets, jam and tomato preserves, plus tin cans from the grocery store, all sorted according to season and use. In the very back corner of the room a pile of potatoes sat slowly mouldering. One by one, we hauled all of the goods upstairs and out to the terrace in the garden, where we set up a makeshift assembly line to dispose of Oma's stores. We used a tool to loosen the lids of the jars, dumping the contents of each into a slop bucket before passing the glass and cans farther along for sorting into bins according to the different criteria for recycling. The entire scene was metered by the repetitive rhythms, like the splut of the slop and the clink and clank of glass and tin falling into the containers. As we stood in the cellar, Oma's grandson noted the vast quantities of things that Oma had stored on the shelves, things that she herself would never have consumed at the rate that she put them away. "She lived through the Second World War," he said, and "she wanted to be ready if it ever happened again." A decade before Western TV made a reality show out of hoarding, we were making a story out of Oma's cellar that sounded like a pop psychological diagnosis of hoarding—seemingly nonsensical behavior, a falling-off from normalcy triggered by a traumatic event. Yet Oma's cellar was also a hyper-ordered space, a store of materials for meeting unpredictable futures that any of us could have walked into and quite possibly lived for some time.

In Oma's *Abstellraum*, products and practices from various sources and modes of preparation mingled: cans of preserves from unknown locations, jars full of fruit bought at supermarkets and canned at home, potatoes most likely from local farmers, and the trash, compost and recycling bins, into which we chucked a life's work of preserves. The storage room was like a diorama of historical moments in convergence, from wartime privation, economic shock therapy, market liberalization and finally environmental governance. It traced an arc of historical change at the same time that it demonstrated that the regimes of everyday living from different historical periods are as additive as they are successive, overlapping and merging in form and practice in the making of lives. The storage room was like a still life of the still-living sites that I discuss below, where the value of everyday objects is transformed through shifting patterns of use, repurposing, and casting off.

By the time we cleared out Oma's house, I had already learned the basics of sorting trash into refuse and recyclables. Yet watching the Adlers and their cousins liquidate Oma's stores afforded me a deeper appreciation of the many considerations people in Germany make when deciding how to dispose of waste, and particularly forms of waste that exceed everyday orders of waste management. When Oma died, the recycling and packaging laws that are now common sense across took form. Materials that would previously have been repurposed or recycled locally are now removed from visible local settings and transported into farther-reaching networks of exchange. In most village households, however, these networks are known only fuzzily at best, as everyday

energies are focused primarily on the proper sorting of trash in order to ensure its successful removal.

### *Bins, bags and bottles*

More than a space for the expression of preexisting individual ideas of class, belonging and citizenship (Pajo 2008), my experience with sorting trash and discussions about sorting trash among villagers indicates that the management of refuse is a site of sensuous immersion, where practices of sorting evoke overlapping senses of agitation and play. Each household has its own idiosyncratic systems by which refuse is managed, and yet the distribution of these practices is shaped by and through the categories of waste specified by the municipal and regional waste removal programs. The multiple categories of household waste that Germans negotiate in everyday life differ slightly between states, regions, and specific communities. In the county of Aurich, where Dobbe is located, categories of waste include recyclables eligible for curbside collection, refundable glass and plastic bottles, and glass that must be recycled at neighborhood or village bottle drops. Curbside collection entails sorting recyclables into one of several receptacles. When you sign up for utilities in Ostfriesland, you are required to purchase three different color-coded bins that correspond to different kinds of refuse: paper, landfill, and compost. People store them in a row, either on the side of the house, in the carport (or, in newer homes, in the garage), or in barns. Some people build little niches for them by their driveways, enclosing them in lattice and verge like a roadside altar. There's a blue bin for paper, the *Blaue Tonne*, which is where you throw newsprint,

magazines and cardboard as well as books, packaging, folders, envelopes and giftwrap. If you receive bills or other mail in envelopes with cellophane windowpanes, you need to tear the cellophane off and throw it into the bin for landfill, which is called the *Schwarze Tonne* even though the bin itself is gray (*grau*) rather than black (*schwarz*). The landfill bin is the place for anything headed straight for the dump, like tissues and paper towels, used condoms and tampons, diapers (for an additional fee) cotton balls, mesh onion bags, cigarette ashes, DVDs, compact discs, computer hardware, pencils, candle wax, leftover cosmetics, shards of glass and ceramics, and any plastic or aluminum items that do not have a Green Dot on their packaging. The stuff that goes into the gray bin is quite literally the *Müll* (trash) that is going nowhere after it leaves the house, although where it is actually going is to the dump. Waste to be composted (or *Bioabfall*) is deposited into a green bin called the *Biotonne*. You can get a utilities discount if you sign a form attesting that you compost independently, but I've never known anyone to pursue this, even though many people in the village also compost independently for their gardens. When you buy your compost bin you can choose between bin capacities of 120 or 240 liters, although no household may dispose of more than 480 liters per year. Compost includes refuse from fruits and vegetables, leaves, weeds, garden clippings, bones, nutshells, teabags and cloth tea filters (although tea bags usually have metal staples in them, people don't bother to remove them), the remains of sausages and other foods, wood ash, dirty biodegradable paper, eggshells, feathers and hair from small animals.

In addition to the bins, there are *Gelbe Säcke*: "yellow sacks" that people use to hold empty plastic, tin and aluminum containers that come with the Green Dot on their

packaging. The Green Dot or *Grüner Punkt* is the trademark of the German Dual System for waste collection (*Duales System Deutschland GmbH*), which was formed in 1990 as a means of ensuring that corporations used recyclable packaging on consumer goods. The system was formed in anticipation of the federal Packaging Ordinance of 1991. All of the companies whose products bear a Green Dot have paid licensing fees to the Dual System based upon the material, volume and weight of the various packaging that they fill and distribute each year.<sup>23</sup> Originally conceived as a nonprofit organization, the Green Dot was privatized in the late 1990s, sold to a German subsidiary of a US-owned private equity group in 2005, and then sold again to a UK-based firm in 2010. Thus recycling of synthetic and industrial materials extends preexisting commodity chains by making multinational capital out of waste, worlding new possibilities of exchange across national boundaries and international waters.

In some German cities and apartment complexes, people are assigned a yellow bin instead of the sacks, or a dumpster into which all of their yellow sacks are collectively thrown. Most Dobbeners live in houses, and are confined to the use of yellow sacks. You can get the sacks for free at Markant; if you ask your cashier, she (or, during one or two shifts a week, the sole male cashier who works there) will give you a couple off the roll she keeps on a shelf under the cash register. You might find them at City Hall or in the local bakery, or in other supermarket chains like Penny Markt. Anything with the Green Dot goes in: cola cans, non-refundable plastic bottles (they're the ones you can

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<sup>23</sup> In 1994, a European Directive on Packaging and Packaging Waste (94/62/EC) ported much of German packaging laws and the recycling scheme of the Dual System into European law. Since then, the Green Dot has expanded to 28 European countries, and, per its own website, its trademark appears on more than 460 billion packages each year.

easily collapse), vacuum packaging, candy wrappers, Tetra-Pak dairy cartons (also easily collapsed), and plastic grocery bags, styrofoam, and polystyrene. Each sack can hold roughly 60 liters of stuff. But it gets confusing because the system is trademark-only: if you throw something in that doesn't have a Green Dot, it won't be recycled, and it could gum up the system. Thus, anything made of plastic, tin or aluminum that doesn't bear the trademark must be thrown in the landfill bin unless you're willing to take them to the recycling depot (which I've never heard of anyone actually doing, unless they're selling metal for scrap). Various cities and regions around Germany have taken steps to address this gap in the processing of recyclable materials. In Berlin, Baden-Württemberg, and Rheinland-Palatinate, for example, government officials have pushed a transition from yellow sacks to *Wertstofftonnen* (in Berlin, the bin is orange, and authorities refer to it—in English—as the “Orange Box”) into which recyclable materials with and without the Green Dot may be deposited for later separation, shifting the burden of distinguishing trademarked packaging from non-trademarked packaging from consumers to trash collectors. In Ostfriesland, however, the yellow bags remain, at least for the time being.

The various end destinations for household waste require constant negotiation as people find a way to store their trash before its assigned removal day. Trashcans under the kitchen sink fill up with paper towels, Kleenex wads and bottle caps destined for landfill. Trashcans themselves have become a consumer item. They come in muted tones or garish reds, yellows, greens and purples, always in sleek plastic. Some people invest in bins with multiple dividers that slide out on a track when you open the cabinet door. You can find them at housewares stores or at the Ikea in Oldenburg. The different

sections of the bin get cruddy, and sooner or later you have to take them outside and rinse them off. Most people keep a bowl to the side of the kitchen sink where they throw bones, vegetable peelings and coffee grounds before dumping them into the compost bin or onto the heap. The bowls are plastic, round and colorful, old Tupperware that people kept after the storage container craze of the '80s. ("Give it to the pig," one of my friends used to quip to her children as they dumped their leftovers into the sinkside bowl.) And almost everyone has a place where paper trash accumulates before they carry it out to the blue bin. The papers pile up in plastic trays or leftover cardboard crates that people use to carry home their bulk goods from the grocery store. Pieces of paper spill out left and right and magazine subscription cards slide behind the tray and crumple onto the floor. And then there are the yellow sacks, which are impossibly unattractive when they're full of trash. You can buy a container to hold them but it's usually just a frame with a lid, so the bag bulges out on all sides as it fills. Some people confine them to an unseen corner; others simply let them fill up in full view. They stow the full bags in carports or sheds until it's time to set them out for pickup. (Volker and Regina hang their full yellow sacks from the rafters of the old plant nursery, right next to the carport. They sway in the breeze like misshapen balloons.) On the days when the contractors are due to pick up the yellow sacks, street corners are piled high with them, a mountain of nearly neon yellow and black Helvetica letters melting Dalí-style against the blue, gray, green and red of the surrounding landscape.

People say that trash sorting is a farce anyway. They say that some TV exposé revealed that the materials aren't actually recycled, they're just shipped off (sometimes

on a literal ship) to a different landfill. But people keep recycling all the same. The main thing is that the trash gets taken away rather than left behind. Each week, a different contractor arrives to remove a different kind of bin. (The county authorities send a calendar that color-codes the specific days when bins and yellow sacks are due to be picked up from one's area) Once a week, you drag the requisite bins or bags to the curb for removal. The bins must rest no more than two meters from the edge of the street with their lids facing the road. It's important to ensure that the bins aren't overfilled and that the lids close. If anything is out of order, your trash won't be removed. There are hash marks on the outside of the compost bin that allow you to check whether your compost exceeds the weight limit. If it does exceed it, or you put something inside the bin that doesn't conform to the definition of compost, then your bin will be left behind, a "red card" stuck to the top to inform you of your infraction. "They know if you put the wrong things in the bin because they have sensors that check it right there on the street," Elfriede warned me repeatedly when I first moved to Dobbe. Others around town echoed her warning: *das nehmen sie nicht mit*. They won't take it with them. Everyone has a story about the time the trash got left behind. Parents scramble after children to make sure that they throw their Kleenex and candy wrappers into the correct receptacle. "Just leave it on the counter," Antje once said to me when I (already a longtime veteran of trash sorting) stooped to toss packaging destined for the yellow sack into the purple bins she had set under the sink for exactly that purpose. In most families, the wife or mother is in charge of trash sorting, as they are of most aspects of the domestic sphere (see also Silberzahn-Jandt 1996, 1999).



This was also my experience as I worked from home while living in Dobbe in 2003. Although both my partner and I were employed, I was responsible for preparing our meals and sorting our trash. I carried out these duties more or less regularly, attending to the different ways that trash needed to be sorted for removal. But things always spilled out of their requisite categories, exceeding the slots afforded to them by the recycling scheme. We had moved to Dobbe from a city apartment where all of our trash went into the apartment block's collective bins and dumpsters. Now, living at Elfriede's house, we were the only ones who used our recycling bins, and we were told that the scrutiny of our refuse would be far greater since the trash collectors could scan our bins and identify misplaced waste. This caveat led to a mundane moment of crisis when I was faced with waste that didn't fit any of the categories of waste that I had previously known. One afternoon during an otherwise successful attempt to cook East Frisian steamed dumplings, I failed to adequately flour the kitchen towel in which I suspended the dumplings over boiling water. My mistake reduced the gingham dishcloth to a wad of cotton and crusty dough that hardened like cement. The thought of wasting a good dishcloth (my mother-in-law's plaid *Frottiertuch*, a style of dishcloth that can presently be found in most homes around Germany) kept me from tossing it directly into the landfill bin, but soaking it in the sink did nothing to remove the gluten that had merged with the fibers of the cotton. Was a cotton dishcloth compatible with compost? Were the dyes harmful? If I threw it into the green bin, would the trash collectors leave it behind? A cursory Google search yielded no answers from the Internet of 2003, and I was too humiliated at my own failure as a housewife to ask others for advice. I threw the now

nearly dry towel into the cabinet under the sink. My partner eventually discovered it and threw it into the landfill bin, incredulous at my inability to act. The trash collectors removed it without incident. To this day, a decade later, I have yet to see a waste bin that has been left behind by trash collectors, yet I continue to hear that it happens.

Curbside pickup doesn't account for refundable plastic and glass bottles; nor does it provide for non-refundable glass containers. There are depots for the non-refundable glass on neighborhood street corners. In Dobbe the drop-off is located at the corner of the Markant parking lot, where a cluster of three smooth, color-coded silos stick out of the cobbled brick ground. Each silo corresponds to a different color of glass, whether green, brown, or white (clear). Each of the silos has a mouth that juts out at chest level, allowing you to push the bottles through its rubber teeth without letting too many creatures in or odors out. As you drop the glass into the mouth it shatters and clinks against the invisible shards of bottles and jars already piled and broken inside. It's important to distinguish refundable glass from non-refundable glass, because otherwise you might accidentally throw away money that's coming to you. As for refundables, it's anyone's guess as to how long the refund (*Einwegpfand*) system will continue to function in Germany. Markant has long had an automatic machine that processed refunds, and by the time I returned to Dobbe in 2010, the grocer had installed a second machine as well. One handled glass and hard plastic from crates; the other, soft plastic bottles that you fed down a chute in time with the flashing of lights from red to green. The former was frequently jammed, with rows of piled-up bottles visible on the conveyer belt beyond the slot; the latter almost as frequently out of order. The second machine was brought online

to allow for the return of refundable PET bottles. (In 2006, the German government required any store over 200 square meters in size to accept all PET bottles bearing the trademark of the German Refund System GmbH, which functions similarly to the Green Dot.) At any moment, a person might have a stray bottle or two in a basket on their washing machine or on the floorboard of their cars, awaiting their next visit to the store where the drink came from.

And so the domestic management of waste bridges intimate and open spaces in a multitude of colors, finishes, textures, smells, sounds, and rhythms. Green and browning grass, molded foods, smooth new plastic and nubby recycled plastic containers, the wrinkly yellow of the yellow sacks marked with blocky black letters, shiny aluminum and polypropylene packaging, crisp white paper and wadded-up paper towels, the strange flair of English words for German trash, the high-pitched beeps of a successful refund or the disappointing buzz of a returned bottle, the BPA-inked barcode on a slick refund coupon, the wicker basket that empty bottles are stacked in, the sickly sweet smell of fermenting wine wafting out of the bottle depot, the sound of wheeled bins dragged across cobble and pavement late at night or early in the morning—these images and impressions and the motions that animate and articulate them swirl together and cohere at multiple sites, in different ways for different households and the people within those households, and yet a sense of shared experience hovers, of knowing what the deal is and what does and doesn't work. The wink that people share upon buying a sliding wastebasket for under the sink, or upon separating trash while friends are over for coffee spills into a more general sense of shared practice that is then mirrored back with a

difference by local and national publications, which wax both pessimistic and optimistic about German recycling and its potential for sustainability. Blowing off steam at work or after hours, you might read the *Spiegel Online* and click on an article about new recycling bins being introduced in another state, only to find your eye drawn to a link to one of the website's many online quizzes: *Recycling-Quiz: Sind Sie ein guter Müllmann?*

("Recycling Quiz: Are you a good trash man?") Clicking through the ten multiple-choice questions is a game that imbues your tacit knowledge with new value immanent to this tongue-in-cheek survey of recycling citizenship: Into which bin would you throw old plastic food storage container? (Answer: the gray bin; packaging is allowed in the yellow sack, and "packaging" means materials with a Green Dot.) Where would you dispose of this hair dryer when it no longer works? (The recycling depot in your local municipality.)

As Judith Pajo noted in her study of recycling in Berlin, people don't just follow or ignore recycling laws (2008:56). I have found that many Germans who practice recycling are only vaguely aware of the waste legislation around which these new recycling practices have formed; their recycling practice is far more an extension of prior practices than it is an explicit acknowledgement or endorsement of legal statutes, even if the cumulative effect of their actions amounts to compliance with these statutes. When I spoke to people in Dobbe about recycling, they communicated only a general sense of environmental governance, as well as a certainty that "they"—those in charge—were somehow turning a profit by transforming preexisting pathways for waste disposal for new and emerging ends. Recurrent mentions of "they" and "them", the various contractors who pick up different sorts of trash, collapse the municipal and corporate

entities that arrange for waste removal and the numerous workers who actually haul it away into the same entity. The collapse is less of a mystification than it is a way of working with complexity; the shared predicament and practice of sorting generates a sense of something “out there” that is known but never fully understood, always confined to an indefinite pronoun. And yet, the vague sense that “they” exist is one of the things that keep people working to sort out their trash. No one wants to be a bad citizen. Even the hoarders in the village down the road set their recycling bins out on the curb. Nobody wants to get a red card. And if pressed, most people say that doing this is better than not recycling at all.

Meanwhile, by consuming, sorting and setting out spent goods for pickup each week, they are simultaneously producing commodities for markets of which they are often only distantly aware. Igor Kopytoff notes that “economies of complex and highly monetized societies exhibit a two-sided valuating system: on one side is the homogeneous area of commodities, on the other, the extremely variegated area of private valuation” (1986:88). Through the creation of trash in the process of sorting (Strasser 2000:5), Germans create a portal in areas of private valuation to emerging markets in which old objects attain new value. In the *Abstellräume*, driveways and street corners of Germany, people render waste from capital so that it may be transformed into another form of capital altogether, like earthworms whose castings make excellent fertilizer for future flora. Waste economies proliferate beyond the bounds of the village and yet they are inextricably connected to the workings of Dobbe and its environs. Sometimes the waste that turns into capital remains invisible after it disappears. At other times,

however, the waste spills over, irrupting into the sensorium of everyday life. The next section engages this irruption in terms of unpleasant smells that point toward the scaling-up of waste production in the agricultural enclaves of Dobbe's outskirts, the Dobbenerhammrich.

### *Miasma*

One day in July 2007, I stepped outside to discover that the stench of manure had engulfed the entire village like a miasma. In the seven years I had been coming to Dobbe, I had never experienced anything like it before. It was like we had materialized in the middle of a chicken farm. Having grown up around farms in Texas, I knew the smell could only be fertilizer, but it was more of a bizarre weather event than a substance. I knew I would have to avoid breathing through my nose if I wanted to keep my gag reflex at bay. The weather that summer only made it worse. The whole season had been overcast, and seamless clouds hung thick and low above the ground like fiberglass insulation lit from behind in shades of fluorescent gray. There was usually rain on summer mornings in Ostfriesland, but not this year. They'd had freakishly little rain for weeks, and everyone was joking about climate change. (*Das ist ja Klimawechsel!* Dobbeners exclaimed with a grim chuckle.) It was already muggy out, and now it smelled like the water molecules that hung in the air were chased with ammonia and hydrogen sulfide.

I learned that the foul stench was indeed emanating from fertilizer, and more specifically from a form of manure known as *Gülle*. Fertilizer made from animal waste

comes in both solid and liquid forms. Solid waste, or *Mist*—which is actually a mix of manure and used-up straw—is shoveled out of stalls and onto a pile where it composts until it's applied to the soil. In 2010, roughly 132,000 farms reported using a combined total of 26 million tons of *Mist* on their crops (DeStatis 2010). When I lived in Dobbe from 2010 to 2011, the farmers spread the *Mist* in late winter before the thaw. They were in the process of converting old cattle pastures into cornfields for biofuel, and the landscape was abuzz with the sound of hulking Fendt tractors pulling trailers piled high with manure, dispensing it at regular intervals with the push of a button. Clumps that loosened and fell off in transit littered the rural roads in the days that followed, their sticks of hay expanding outward as the manure steamed in the thaw.

*Gülle* consists of liquid waste from cows or pigs. It drains out of stalls via a system of canals and traps that are etched into the concrete slab of a barn and into a silo, where it ferments until ready for use. It can be thickened with the introduction of plant materials like straw or thinned with the addition of water. As of 2010, more than half of Germany's farms used *Gülle* for fertilizer, spraying approximately 67 million tons of the slurry onto their fields (DeStatis 2010). I first saw a tractor spraying *Gülle* in the early spring of 2011, when I was having tea at Regina's house one afternoon. Her daughter Laura was playing outside at the moment that we saw a green tractor pulling a round white drum mounted on a trailer behind it. Regina saw it and summoned Laura to play indoors because the *Güllewagen* was coming. Within moments of her coming inside, the lumbering tractor turned onto a pasture next to the house, crisscrossing rows of gray brown dirt. Suddenly a yellow liquid arced out of a spout on the back end of the drum,

drenching the dirt with slurry and the air with the odor that I had first smelled in the summer of 2007. Whenever the farmers sprayed *Gülle*, the countryside would smell like a sewer for hours or days afterward, depending on how many tractors were spraying at a given moment.

There were several reasons why I might not have noticed the smell of *Gülle* until 2007, seven years into my acquaintance with Dobbe. For one thing, I initially only visited Dobbe for weekend stints in the spring of 2000 and for longer stays in the summer and winter of 2000, whereas most farmers spray *Gülle* on weekdays in the spring, weather and ground conditions permitting. But the use of *Gülle* has also become more pervasive in the years since I have been visiting the village. In Dobbe, this is particularly due to the increase of arable farmland since the *Überschlickung*, and but moreover to the rise in biofuel speculation and production across Germany, which has led some farmers in Dobbe to convert dairy pastures into cornfields. While *Gülle* is used to fertilize crops grown for biofuel distillation, *Gülle* itself can also be distilled directly as biofuel. Farmers around Ostfriesland who continue to raise livestock increase their holdings to stay competitive, and the increase in livestock results in an increase in the production of *Gülle* that can be sold for fertilizer or for fuel. From 2009 to 2012, the use of *Gülle* in Lower Saxony increased by more than ten percent (Weiper 2012). There is also a ready supply of *Gülle* available from The Netherlands, where industrial farms sell the substance at far cheaper rates than their German counterparts. Cheap *Gülle* is a necessity among farmers of central German states like North Rhine Westphalia, where many farmers raise crops instead of livestock, requiring them to obtain fertilizer at a premium. (While the



German government stipulates that Dutch farmers must pressure-sterilize their *Gülle* before importing it into the country,<sup>24</sup> there is a flourishing black market trade in liquid manure between the two countries.) In areas like Dobbe, the increase in *Gülle* use has been exponentially higher because it coincided with the conversion of pasture into farmland, and thus also with an increase in the surface area on which fertilizer is being sprayed.

There is no weather report for *Gülle*, but it had the impact of a climatological factor, albeit one harder to predict than most meteorological patterns. In order to forecast the spraying of *Gülle*, one would literally need a livefeed to register the moment that farmers themselves conclude that conditions are ripe for spreading fertilizer, with *Gülle*-cams and *Gülle*-GPS to follow farmers' movements from one pasture to the next. Such a warning system would be useful, given that a day's domestic labor could easily be ruined if someone hung their laundry out on the clothesline, only to have their clothes fumigated with *Gülle*-gas when they least expected it. In Dobbe, on the days when the farmers were spraying, parents like Regina kept their kids indoors and neighbors admonished one another to close their windows before the smell wafted inside. It was like a vernacular version of the "olfactory vigilance" that Alain Corbin found among the literati of 18<sup>th</sup> and 19<sup>th</sup> century France, who feared "the impregnation of the earth by evil-smelling liquids" (1986:24). It was vernacular in the sense that the villagers had no acknowledged genre for discussing the problem of *Gülle*, barely referencing it until it was upon them before

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<sup>24</sup> As of 2011, Dutch farmers had appealed to the European Commission for a reprieve from this requirement (Top Agrar Online 2011), but information was not forthcoming as to a subsequent ruling by the European Court of Justice.

springing into action at the first hint of manure on the air. As clouds of fertilizer spread across the countryside, a diffuse but energized *Gülle* public threw itself together, enfolding tractors in motion, dirt made damp with slurry, water molecules binding on cilia, hands closing windows, clean yet stinky laundry, turned stomachs, rumbling wheels, and shaking heads. The spraying of *Gülle* worked like a refrain, but a refrain in an irregular meter that made it hard to predict it would happen again.

Sometimes *Gülle* triggered ugly feelings and speculation as to the farmers' nefarious ends. On the July afternoon when I first smelled the slurry I was having tea with my former neighbors Hanne and Gerd. Hanne and Gerd's split-level house sticks out of a clump of green bushes on a tiny tract in the middle of a field. The field doesn't belong to them, but the house does, built on land reclaimed from swamps after the war. The land was so new that they didn't even have running water until the Adlers built the nursery up the road, when the water main was extended to the west of Dobbe.

A long cobbled driveway leads from Hanne and Gerd's house and over the field to the main road and into town, connecting them to the outside world. We were walking to my car to say our farewells when the stench filled our nostrils, throats and lungs. It was impossible not to mention as we said our goodbyes. When I asked Hanne and Gerd if they knew what made the *Gülle* smell so strongly, Hanne exclaimed "Yech!" and continued,

It's disgusting. They're stewing it [*Sie dünsten* 's]. It isn't natural how they fertilize the crops these days. When I was a girl, they didn't use those artificial chemicals. That's why it doesn't smell right, why it smells so strong. It's an

outrage [*Das ist ja unverschämt*] that they stink up the countryside with that stuff.

Yech!

The “stewing” to which Hanne refers could refer to one of two things that resulted in the wafting of *Gülle* across the village. It could refer to the mixing of the slurry with a large propeller, which is done from time to time to ensure that the substance doesn’t separate into layers while fermenting in its silo. Or it could refer to pressure sterilization, where *Gülle* (particularly that from pig droppings) is cooked at 143 degrees Celsius for twenty minutes to ensure that harmful bacteria are eliminated before the *Gülle* is used for fertilizer. Either way, the countryside stank, and Hanne saw it as a violation of propriety, of how things should be done. Hanne always spoke her mind when she felt like something flew in the face of the way things should be done. In our teatime talks she usually invoked “outrage” in regard to interpersonal transgressions—when neighbors failed to do what they say they would, or to act in accordance with remembered expectations of neighbor solidarity. In a sense, the *Gülle* in the air was also an interpersonal transgression, the willful pollution of the landscape at the hands of perpetrators who were known but not fully identifiable. The “they” whom Hanne implicates were ostensibly the people handling the *Gülle*: farmers in the hamrich, though living as she did on the edge of town, Hanne would be less likely to refer to them as hamrichers as other villagers might have done, since she was technically a hamricher herself.

Most intriguing to me was Hanne’s assertion that the farmers had put chemical additives in the *Gülle*, compounding and strengthening its smell. At the time it surprised

me because when I think of synthetic fertilizer, I think not of manure but of the chemical smells I knew from childhood, like the sickly sweet strawberryish scent that clings to the bed of a Texas rice farmer's truck. But Hanne's sentiments also resonated with other things I'd heard people in the United States say about Big Ag, fertilizer, and genetically-modified foods. It thrums somewhere between criticism and conspiracy theory, where an abstract actor scandalously uses foreign (and potentially harmful) materials to "improve" something that worked just fine to begin. The "ultravid mode of fascination" (Stewart 1988:227) incited by the smelling of *Gülle* affords a sense of loss of the expected in tandem with the shock of the new, which Hanne meets with an appeal to a nostalgic past. Her nostalgic past takes form as a childhood where only natural farming methods were used, although ironically, the majority of *Gülle* is produced without the addition of synthetic substances, which is what one is given to understand from Hanne's invocation of chemicals. What Hanne glosses as "natural" and "artificial" could be better understood in terms of scale (the breadth of fertilization across the area) and density (the amount of fertilizer prepared and used in and around the village) rather than in terms of content (organic versus seemingly synthetic materials). The smell of manure that hangs in the air around the village stems from any number of factors, from the stirring and stewing (i.e., the sterilization) of *Gülle* to the spreading of fertilizer. Piles of solid manure are also known to produce clouds of ammonia that travel on the breeze. But beyond these immediate factors, the overall presence of this much *Gülle* can more broadly be attributed to the fact that there is more land surrounding the village than there used to be, and that land has increasingly been used for cultivation in a time when biofuel

is sweeping across the region, converting *Gülle* into an object for financial speculation at multiple translocal scales. What Hanne calls artificial we could easily gloss as “scaled up,” the increased density of a rising manure monoculture, the mutation of a local practice into an extralocal industry.

One could spin an argument out of these considerations that Hanne ‘s remarks reflect a kind of false consciousness about the socioeconomic conditions underpinning her immediate surroundings. Her nascent theory of chemical additives could be framed as the result of alienation from the workings of power and environmental governance in and around the village and in a sense it is, if alienation means not knowing the exact processes by which a thing in her midst was made. But her words also world a way of approaching and inhabiting that thing *in situ* that is no less effective or real because it is idiosyncratic. Hanne’s words, part of a diffuse but energized *Gülle* public, index a field of sentiments and statements that can be activated and improvised upon in response to future provocations. “Smell, like smoke, draws our senses inside obscurity. Something is going on but we don’t know what it is. We immerse ourselves in it, engulfed in its unknowns,” writes Tsing (2005:50). The pungent stench of *Gülle* on the wind is an incitement to form, and more specifically to the making of new forms, new ideas and repurposed memories, in response to the making of waste.

These sentiments and statements about *Gülle* simultaneously resonate with and diverge from popular narratives about *Gülle* that have emerged in recent years. Since my first brush with *Gülle* in 2007, for example, national periodicals like *Die Zeit* and *Der Spiegel* have increasingly focused on the perils of its use. Slurry is a booming business,

with some farmers even contracting barges to haul their wares via water from state to state, but the market is uneven (Grefe 2013). In some areas, the rise of factory farms is producing more manure than the farmers can possibly sell. In Vechta and Cloppenburg, two counties immediately south of Ostfriesland, farmers recently yielded 3.3 million more tons of *Gülle* than they knew what to do with each year (Uken 2013). Furthermore, slurry used as fertilizer increases the amount of nitrates in the groundwater where it is sprayed, undermining the phytoremediation for which some continue to hope. In millenarian tones that pile up from piece to piece, environmental journalists and pundits bemoan the “time bomb” of nitrate contamination. Scientists report a rise in nitrates and antibiotics in the soil and water table of various regions where industrial farming is pervasive. In one part of Bavaria, experts say, the water table is so loaded with nitrates that you can fertilize your crops using tap water alone (Charisus 2012). With the scaling-up of organic farming to meet the demands of agribusiness, fertilizers billed as ecologically friendly are destabilizing the ecosystems that organic farming was supposedly working to preserve. With all the focus on reducing carbon emissions, it seems that few stopped to think about nitrates in the early days of German environmental policy. The difference between reactions like Hanne’s and the sentiments expressed in the popular media is that for Hanne and other villagers, the problem is at once more banal and more pressing because of its physical immediacy. It’s more of slow burn than a ticking time bomb, and any concept of blame that might arise in connection to it can be laid close to home, if only indirectly referenced. But sometimes there are exceptions.

In 2011, ugly feelings swirled in Dobbe around the possibility that Glle was the culprit behind a deadly outbreak of *E. coli* bacteria that killed 49 people and cost European farmers over \$600 million. One morning that May I got a call from Regina, who said there was a “raw produce virus” going around, maybe some kind of food poisoning from produce. There was a sense that the outbreak was confined to the village. “Don’t buy any fresh fruits or vegetables at the store until it’s over. They don’t know where it’s coming from yet except that it might be cucumbers or tomatoes.” As I hung up the phone, I presumed that Regina’s “they” referred to authorities from the county health department. Perhaps the elementary school had sent a letter home to parents after a couple of children got sick. Only when I opened my laptop that afternoon did I learn that what I thought was a local bug was in fact a nationwide outbreak of *Escherichia coli* bacteria, and that “they” were apparently representatives from the Robert Koch Institute, Germany’s center for disease control. Word of the epidemic, known by the acronym EHEC (for the German word for “enterohemorrhagic”) had first surfaced a few weeks before in Hamburg, nearly three hundred kilometers east of Dobbe.<sup>25</sup> Meanwhile, the head of the Aurich county health department told the local news that it was “just a matter of time before EHEC also reaches Ostfriesland.” Public officials admonished residents

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<sup>25</sup> Tests revealed it to be an entirely new strain of *E. coli* (called O104:H4), with at least eight genes that made it resistant to the majority of antibiotics. Many of those affected by the bacteria also developed hemolytic uremic syndrome (HUS), a disease characterized by the destruction of red blood cells, kidney failure, and low platelet counts. From there, cases emerged across other areas of Germany, including Bremen and Oldenburg, which is less than an hour’s drive from Dobbe. By the end of May, more than two thousand cases had been reported, and 59 of those lay in hospitals in Hamburg. Forty-three of those in Hamburg were female and seven of the children were on dialysis.

not only to wash their vegetables but also to scrub them or, better yet, cook them before eating them.

Questions of blame circulated in the media. By June, the Koch Institute had linked EHEC to sprouts, cucumbers and tomatoes, but they weren't sure what the original culprit was. First it seemed that the bacteria had come from Spanish-grown cucumbers. Then the Koch Institute recanted their remarks, looking elsewhere for the source. Russia instituted a ban on produce imported from the EU. As the weeks dragged on, the national news reported staggering financial losses to German farmers and farmers who exported to Germany.

In response to the information on the news, Dobbeners boycotted most of the produce at nearby supermarkets. Members of my breakfast circle arrived at each other's homes each week to find the table set solely with cold cuts and cheese and no vegetables. Each host made sure to indicate her omission of our usual cucumbers and tomatoes, explaining that you "couldn't be too sure." When I hosted the breakfast circle I followed suit, offering only some grapes in lieu of the usual offerings. I too made sure to note the absence of the tomatoes and cucumbers, which lay untouched in Markant's produce section well into July. Better safe than sorry, we said, since nobody knew where all their produce was coming from or whether it came into contact with other things on its way to the store.

Where people around town had previously blamed Greek laziness for endangering the Eurozone's financial solubility, they now grumbled about Spanish farmers putting Europe's produce at risk. When it came out that Spanish farmers weren't responsible,



reporting focused on the possibility that the bacteria were from German sources. *Gülle* leapt to the fore in the national news and in villagers' conversations. A meteorologist at the website Wetter.net contended that the drought that had plagued Germany that year meant that the slurry hadn't thoroughly soaked into the ground, leaving harmful bacteria to proliferate on the surface of the earth.) One afternoon when I was having coffee in Hard and Antje's kitchen I asked them how the EHEC epidemic could have come about. Hard had just come in for the afternoon after a morning of hauling grass to silo. He had trained as a farmer in his youth and now drove a tractor for a farm contractor in the area. With his coffee cooling on the table and a cigarette in one hand, he painted an intricate word picture of the canals and traps through which animal wastes pass on their way to the silo for fermentation. He said that infected particles of manure could have become lodged on the trap, allowing the virus to strengthen and spread through dissemination of *Gülle*. It was a foregone conclusion that such a contamination was possible. Our matter-of-fact conversation lacked any sense of outrage or charge beyond the focused tracing of the paths the manure would take from the stall to the silo. If my exchanges with villagers had been marked by a sense that anything was possible precisely because the methods by which *Gülle* was processed were unknown, my discussion with Hard suggested that anything was possible precisely because they were known.

Although there was no evidence that East Frisian farmers had grown the tainted produce that triggered the outbreak in Hamburg, tensions simmered between the villagers and the farmers. In the Dobbenerhammrich, people were quiet about the situation. The primary crops grown around the hammrich consisted of rapeseed and increasingly corn,

not cucumbers, sprouts or tomatoes. Yet some villagers expressed the sentiment that any farmer could be responsible for the outbreak. Dobbe's kindergarten sent a notice to parents that they would no longer sponsor the five-year-olds' planned field trip to a farm in the next town over, citing parental concerns about EHEC. Parents were welcome to take their children on their own, but the kindergarten couldn't be held responsible for what might happen to them at the farm. (Such field trips are a regular component of children's education in Germany.) There was no indication that parents protested the kindergarten's decision.

Dobbeners' reactions to the *E. coli* outbreak differed markedly from reactions to other food-related health scares that I had witnessed during my time in Germany, like mad cow disease, foot and mouth disease, and dioxin contamination. In 2000, for example, cases of mad cow disease led to the culling of an estimated two million cows across Europe and regular reports on the epidemic in the German news media for the next year. Cover stories on BSE with headlines in horror-film font screamed up from the newspaper where it lay on the kitchen table next to the sunny yellow bakery bags in a still life of everyday kitsch. People joked about BSE on their way to pick up meat for summer grill parties, and nobody seemed to care. Scares were like any other ticker-tape news, absent yet present, removed from everyday life at the same time that they recurred across conversations and media reports. When a dioxin scare rippled across Germany in January 2011, people in Dobbe reacted with similar detachment. Up to 150,000 tons of dioxin-contaminated feed had been sold to chicken and pig farms across the country, which in turn led to 4,700 farms being blocked from selling meat and eggs, the

destruction of 100,000 eggs, and the culling of 9,000 chickens. In the village, everyday conversations glossed over the news with the roll of an eye: yet another health scare in the news, more ink on the cover of the Bild-Zeitung. Hard and Antje, who kept a few chickens in the housebarn, jokingly offered me “dioxin-free eggs.” The news was taken as yet more sensationalist kitsch, removed from villagers’ immediate concerns. Most people picked up eggs on the outskirts of town from a local farmer who kept a refrigerator on the edge of his driveway. The spot was marked by a small white sign on the side of the road that read FRESH EGGS, scrawled freehand in black paint. Upon pulling into the driveway you’d find the refrigerator next to a lockbox with a slot for money, with a light and a surveillance camera standing guard. A dozen eggs cost three euros; two dozen eggs cost five. Another farm down the road sold Yukon Gold-style potatoes out of a bin next to a pen of two disinterested goats. That farmer didn’t have a camera you could see, just a little lockbox on the side of the bin and bags and bags of spuds. Other farmers on the road to Aurich sold eggs and potatoes too, among other things. When the dioxin scare broke and local farmers didn’t close up shop, people just bought their eggs from them if they weren’t already doing so. But the *E. coli* scare was different because it kept going and going, with one of its possible culprits swirling in recent memory: the reek of excrement on an East Frisian breeze. Dobbe’s EHEC scare was a conjuncture of various aspects of everyday life that came together in the key of crisis time. The formerly free-floating *Gülle* public threw itself together at the same time that its constituents folded into factions whose force was palpable beneath the surface of everyday conversations.

By the time the bacteria were traced to bean sprouts from an organic farm near Hamburg, over 4,000 people had fallen ill, over a quarter of those cases had developed HUS, and 49 people had died. (No cases were reported in Ostfriesland.) At the time of this writing, the 2011 incident remains the deadliest outbreak of *E. coli* on record. When health inspectors arrived at the farm where the sprouts had originated, they found no remaining trace of *E. coli* at the facility, which complied with all federal requirements for organic farming. The farmer claimed to have used only seeds and water in the planting process, with no cattle manure or other substances applied as fertilizer. The only explanation forthcoming was that the sprout seeds had been contaminated before they were ever planted. The offending seeds were then traced to a supplier in Egypt, resulting in the European Food Safety Authority placing a freeze on the import of Egyptian sprout seeds until October of that year. As summer waxed on and the countryside remained free of fertilizer, the synesthetic specter of *Gülle* dissipated for the time being. My friend, whose daughter Swaantje was enrolled in kindergarten in Dobbe when the field trip was canceled, planned Swaantje's birthday party at a nearby farm without a second thought.

### *The electric pig*

Traveling north to the village from my log cabin and the old farmstead, you can avoid the highway altogether if you want if you follow the grid of roads that were extended and linked during the *Überschlickung*. Some of the roads lead into town, and some of them lead to what seems like nowhere, allowing farmers access to tracts at odd angles. One road near the log cabin curves back toward the highway, tracing a hyperbola

that never quite meets the road beyond, dead-ending in a gravel path blocked by a gate. A couple of hundred yards beyond that sat the Heerma co-op, which had served as a granary, mill and farm store for over a century. In the spring, the farmers who worked the tract north of the road piled up branches and debris on the edge of the canal to burn in the Easter fires. In the summer, once the pile of debris had been reduced to blackened bits by the fires and the days of rain that followed, you could see that the area behind the gate was crowded with construction equipment rumbling around, digging something, the whir of their motors rising above the steady hum of the dog food factory and the whine of traffic from the Autobahn. It was behind Heerma's, Antje said, that they were building the new biogas processing plant. Several farmers from Dobbenerhammrich had thrown in with Heerma to build the plant at a cost of 3 million euros. The village was abuzz with the news. If you drove down the highway that summer and caught sight of it from the highway, you'd see a gravelly driveway on one side of Heerma's that lead to a gravelly construction site beyond, where a green silo was coming into form, a metal arm suspended above the tank with a light that shone through the night, glimmering on the pond outside my log cabin. As the plant came together, the old pastures around it were transformed into cornfields. One day I was having tea in my friends Otto and Anne's winter garden when my eyes inadvertently searched for the view of cattle beyond the fence that I had seen so many times before, only to realize with a shock that cornstalks now rose above the fence like a wall. "Behind us there used to be grazing land for the cows," Anne noted, following my eye; "but now they're growing corn there for biogas."

To paraphrase Paul Virilio (2006), the clearing of land for the cultivation of power caused new distances to approach.

While biofuel encompasses a range of liquid, solid and gaseous fuel sources, people in Ostfriesland spoke mostly of biogas. Biogas is a blend of methane and carbon dioxide produced through anaerobic digestion; when combusted with oxygen, these yield a gas that can be converted to electricity or heat, or compressed to power machinery and motor vehicles. Biogas in Germany is produced almost exclusively from animal waste and biofuel crops, usually corn but also rye, rapeseed and other grasses, as well as chaff castoffs from from feed production.

While the plant was under construction, conversations around the village discussed the likely uses of the gas the plant would produce. Some supposed it would go to the school, or another public entity that would benefit from a direct line to a large natural gas source. Nearly a year after I returned to Texas, and ten months after the plant began to receive corn and *Gülle* for fermentation, I read in the news that the Hammrich Incorporated group had struck a deal with the regional water authority to send the gas to Dobbe's town sewer. Hammrich Incorporated would conduct the biofuel via a two-kilometer pipeline from the plant to the sewer, which sits in a cluster of trees in the middle of Dobbe's wind park. I once stumbled upon the sewer by accident while riding my bicycle through the wind park. At first I thought the compound was an old farm, or perhaps a farm equipment service. The building appeared deserted on a weekday afternoon, its only means of identification a small sign on the road by the church that read "Sewer," pointing in the direction of the wind park. The water authority, which

administered the sewer, was building a large hall to receive the gas. In the hall, a machine called an Electric Pig would use the heat from the biogas to “digest” the Dobbeners’ waste material. The machine is one of three hundred in operation around the world, produced and trademarked by the German-owned Thermo-System. (In English, it is trademarked as the “Electric Mole,” but here I wish to communicate the sense of its German name, *das Elektrische Schwein*.) The machine performs many of the same calculations that are part of farmer’s decisions as to when to spread *Mist* and *Gülle*, factoring weather and the condition of the manure itself in order to determine the rate and intensity of its processing in order to forestall the spread of foul odors beyond the hall itself. Thus while farmers’ primary concern with the spreading of *Gülle* lies in the threat of nitrate contamination of crops in progress, the biogas-fed waste treatment works to regulate the off-gassing of ammonia and hydrogen sulfide at the same time that it is inextricably connected to their accumulation and propagation.

Previously, the project’s advocates stated, treated liquid waste retained a high water content (as much as 80 percent), but with the heat from biogas and the work of the Electric Pig, the waste treated would result in a water content of only 20 percent, drastically reducing the amount of the waste and the costs required for transporting it offsite for conversion to fertilizer or thermal heat. One of the articles I read about the project after I had returned from the field noted that here “farmers and the [water cooperative] now demonstrate together, that biogas plants and ground water protection don’t cancel each other out.” Implied here is the threat of nitrate contamination portended by biofuel and the *Gülle* economy that animates it. In the Electric Pig project,

the carbon-neutral technology of biogas is here allied to a project to reduce nitrates, currently the most famous threat to German ecosystems. The production of methane, a greenhouse gas that is 21 times more potent than carbon dioxide when it comes to trapping radiation in the earth's atmosphere, is something that would happen anyway.<sup>26</sup> Yet the attempt to harness this process and make it profitable represents a new site of spectacular accumulation, where environmentalist discourse is an idiom for the monetization of waste. The public use of the biogas bridges the divide between village and hamrich in such a way that it is hard to imagine that villagers might protest the project.

In other communities around Ostfriesland, however, this is not necessarily the case. Thirty minutes east of Dobbe in the municipality of Großefehn (also in the county of Aurich), a controversy erupted in 2010 around a planned biogas processing plant that a dairy farmer planned to install on the edge of the village of Holtrop. When the *Spiegel* reported the story in the summer of 2010, Jann Aden was still awaiting his construction permits from the Aurich county authorities, but the process had been slowed by protests from Aden's neighbors, who lived in tract housing across the road. Aden as he is sketched by the *Spiegel* resembles the more sympathetic contestants from the reality show *Bauer Sucht Frau* (*Farmer Seeks Wife*), a 29-year-old farmer flanked on either side by his mother and father, a family that has farmed on the edge of Holtrop for six generations. Through Aden, the text rehearses the dilemma faced by dairy farmers at

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<sup>26</sup> This figure reflects methane's Global Warming Potential, a statistic used by the Environmental Protection Agency to assess the threat posed by greenhouse gases. It refers to the amount of heat that one molecule of a gas will trap relative to a molecule of carbon dioxide.



time when milk prices remain at their nadir. Like the Hammrich Incorporated project, Aden intended to offer his product to public utilities, suggesting that the biogas be used to heat to Holtrop's elementary school and sport hall. But his neighbors opposed the plant, formed a citizens' initiative and filed a petition to stop the project that garnered 350 signatures among Holtrop's 1,440 residents. They pursued legislative action in the Aurich county courts in the fall of 2010, were overruled shortly thereafter and submitted an appeal to the regional circuit court that is yet to be decided at the time of this writing. With the appeal pending, Aden's biogas plant was operational by the start of 2010.

The Holtrop citizens' initiative mentioned odors as their first concern, and in so doing, tried to harness the force of *Gülle* for their own ends. They cited risk factors in line with the stipulations of federal emissions law: the potentially harmful smells, various noise disturbances and safety hazards from frequent deliveries of corn and *Gülle* and from and the plant itself, and the general harm to property values and quality of life caused by all of the above. The initiative's website also bemoaned the arrival of "agribusiness conditions [similar to those] in Emsland." The mention of Emsland, a region to the immediate southeast of Ostfriesland that abuts the Dutch border, is tantamount to invoking The Netherlands itself. "Holland" is held by many in Ostfriesland to be the origin of many social ills in the region, an entity that invites as much speculation and resentment in everyday conversation as do the Lower Saxon Landestag or the German federal government.<sup>27</sup>

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<sup>27</sup> When I lived in the hammrich, I was reminded on more than one occasion that Antje and Hard had sold their old home to a "*Hollander*" who "trashed it out." The Dutch had attempted to claim Emden after the war, a Dobbener randomly scoffed over tea one day.

Among the literati of 18<sup>th</sup> century France, writes Corbin, the smell of putrefaction was a “time machine” that portended the dissolution of the self by evoking the figure of what once came before (1986:24). And perhaps for groups such as the Holtrop Citizens’ Initiative, the smell of *Gülle* conjures a dystopian future akin to Epple’s *Blessings of Independence*. It’s easy to imagine a yellow cloud of *Gülle* fumes swirling around the withered lindens of Epple’s painting, further proof of the harm wrought by the state’s ostensible efforts to ensure the flourishing of an abstract many. Many in Ostfriesland would say that this future has already arrived in places like Emsland, Holland, or the United States, for that matter—anywhere that the rise of agribusiness can be sketched at arm’s length, perceived as a totality rather than felt in the disparate ways that agribusiness makes itself known in more immediate settings. For this reason, perhaps, the dystopian sensibility that Epple or the Holtrop Citizens’ Initiative express is not as widespread amongst those who live with *Gülle* as are the mundane and near-unnoticed technologies of coping and living in *Gülle* midst, the ordinary and overlooked practices that make up sensory publics in a state of continual re-formation.

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Another villager told me of the threat of nuclear radiation from a power plant that the Dutch were building just across the Ems in Eemshaven—“it doesn’t matter if we shut down our nuclear power plants,” he said, “because they could just as easily kill us with an explosion from theirs.” (I learned later that the project in question was actually a coal and gas plant, and the German energy conglomerate RWE would own a twenty percent share in the project.) Such remarks cast The Netherlands (and by extension, Emsland) as a zone of environmental exploitation and cultural backwardness that spells doom for its neighbors.

*When waste must not be waste*

In order for farmers to stay afloat with the rise of waste economics, they must ensure that their capital remains as mobile as possible, capable of insertion into multiple pathways for circulation with as little regulation as possible. One of the reasons that *Gülle* can be so freely trafficked is because the substance itself is not subject to the same controls as are other waste materials. According to the majority of German and European waste legislation, *Gülle* is not a form of waste but rather a byproduct of agricultural enterprise, like leather left over from slaughterhouses. This distinction is key because it allows for *Gülle* to be sold freely as a ware rather than regulated as waste. However, in 2013, European law opened a space for *Gülle* to be interpreted as waste, prompting a flurry of lobbying by German farmers' associations such to ensure that this would not occur.

The issue arose from the European Council Directive 2008/98/EC, which was passed in November 2008 and which served to clarify aspects of existing waste legislation while repealing some prior directives. Directive 2008/98/EC specified that animal by-products and fecal matter used for biofuel and other agricultural purposes were exempt from its stipulations, but the directive failed to account for liquid manure that was fermented for fertilizer in biofuel silos rather than in silos geared explicitly for the production of *Gülle*. In other words, *Gülle* would only remain a byproduct if it were fermented in a *Gülle* silo, while *Gülle* fermented in a biofuel silo would only remain a byproduct if it were then used as biofuel rather than as fertilizer. The EU stipulated that its member nations would be responsible for determining on a case-by-case basis whether

*Gülle* distilled in biofuel silos as fertilizer should be classed as waste or as a byproduct. In 2011, led by a CDU-Liberal coalition, the Bundestag levied the responsibility for determining whether individual cases of *Gülle* silage counted as *Abfall* onto individual state and regional authorities, provoking an outcry from the German biofuel lobbies and the Green Party (Top Agrar 2011b). In 2013, in response to vigorous lobbying, German federal and state governments agreed to amend the basic recycling law to ensure that *Gülle* would be categorically defined as a byproduct regardless of where it was fermented and to what ends, as long as these locations and practices complied with best practices for organic farming and renewable energy production (DBV 2013; Top Agrar 2013).

Recently, a proposal in the European Parliament to limit the use of food crops for biofuel production (capping at 6% the share of transport fuel comprised of food crops such as corn and rapeseed) stalled out (Neslen 2013). Yet legislators in the EU and in Germany continue to hone in on cultivation more broadly and on biofuel in particular. Most recently, German legislators moved to restrict the cultivation of pastures that have lain fallow for more than five years. This legislation—billed as a means of halting the cornification of the countryside and the *Gülle*-fication of groundwater, and of promoting the use of waste for biofuel—would prohibit farmers from cultivating any tracts that have been grassland for more than five years. As an associate of mine in a village southeast of Dobbe has noted, however, this legislation would make it impossible for small dairy farmers such as himself to cultivate cattle feed on their lands should the need arise, further limiting them from meeting the demands of an industrial dairy industry where milk quotas continue to rise as prices continue to fall. Thus while many farmers in the

Dobbenerhammrich might protest the legislation because it endangers their new livelihood as the producers of biofuel crops, farmers elsewhere would protest it because it threatens their ability to adapt to the changing conditions of whatever agricultural markets in which they are located. Thus top-down moves to preserve and protect European biodiversity are giving rise to other kinds of monocultures: regimes of value that limit the ways in which species meet and sustain themselves with the products of their meeting. This is not to say that efforts to preserve biodiversity are necessarily flawed. Rather, it is to note that such projects invariably give rise to new challenges lived out in the practice of everyday life. For many in Ostfriesland, the proposed ban on cultivation would make a museum of the countryside, preempting the proliferation of diverse forms of animal and plant husbandry.

Translated literally into English, we may call the basic recycling law—the *Kreislaufwirtschaftsgesetz*—the “circular flow” economy law. While *Wirtschaft* is “business” or “economy,” *Kreislauf* conjures the circulatory systems that conduct the stuff of life, whether blood or capital. This basic recycling law attempts to preserve the flow of life in the physical body of a nation that is simultaneously capitalistic and ecological, where capitalism and the environment are inextricable from one another. By and large, German and European waste legislation mandates a continual effort to identify potentially harmful materials in order to remove them from systems of exchange and nullify their impact. But the mark of a harmful substance is contingent and shifting, and policies intended to mitigate harm set the conditions for fresh harms to emerge.

## *Conclusion*

In Dobbe as elsewhere in Germany, implementation of environmental governance recombined the processes by which materials attain value as commodities, but it has also given rise to overlapping yet divergent orders by which people come to engage with environmental governance and its projects through mundane material-semiotic encounters. In Dobbe, these orders recall feelingful and expressive distinctions between villagers and hamrrichers that I discuss in the previous chapter. Yet farmers engage in the same practices of trash sorting as villagers do, and villagers engage in some of the same waste-saving measures practiced by farmers, albeit to different ends and with different materials. While biomass has long been acknowledged as source of potentially renewable energy (or, more accurately, of potentially carbon-neutral energy), it has only recently emerged as a figure through which the waste products of animals and humans are converted into commodities for often-unseen markets. And yet, the articulation of waste as a site of capital accumulation compels me to wonder how the sustainable village might look if we thought of the everyday production and management of waste as a kind of labor, necessitated by the matrices of everyday consumption in which people find themselves, framed as the price of being-in-common, yet nonetheless generative of capital forms that move and swirl beyond their grasp, cohering in alternating forms of promise and threat. Who is remunerated for these labors and their varied fruits? Where is the burden placed for the production of *Abfall* (versus byproducts), and does this construction of burden work for the benefit of some and the simultaneous transformation of all?

## *Coda*

One spring afternoon in 2011, Regina and Volker and I were sitting in their kitchen when the neighbors in my old place on the other side of the house called to say that their toilets were backing up, meaning that the duplex's septic system appeared—once again—to be full. That's how it went, Regina said: the clogs started next door, then spread to their house, too. It was time to call the waste removal service, but since they wouldn't make it out for several hours at least, Volker would have to do something to unclog the system before then.

When the Adlers built the nursery in the 1960s, the village and its sewer system had not yet expanded to meet them, so they dug a septic tank to service the duplex and the nursery. When Adler died and Elfriede sold the nursery and the other half of the duplex, the homes remained connected through the septic system. Volker had spoken to Elfriede about the need to dig her own septic system, particularly before selling her house, and she had agreed to do so but was yet to carry it out. Thus, the two homes continued to share a single septic system, and all of the headaches that this entailed.

While Regina and I watched through the kitchen window, sipping the glasses of Vilsa mineral water that bubbled before us, Volker reemerged on the side of the house clad in the same rubber overalls and boots that farmers wear when they shovel the Mist out of their stalls. He paused on the driveway a few feet from the place where they put their recycling bins out from week to week, pulling open a metal cover that sat unobtrusively in the grass, a few feet from the place where they put their recycling bins

out for pickup from week to week. Volker unscrewed a second cover beneath the opening and began to shovel heaps of sewage out of the tank beneath. As we watched through the kitchen window, he continued to dig out the sludge, piling it up in a wheelbarrow until he had loosened the matter enough to allow for additional flow into the tank. As our shit quite literally piled up before our very eyes, future capital temporarily *abgefallen*, removed from the cycle through which it would ultimately be transformed into someone else's capital, I considered how we might not be all that different from livestock, wondering what cows and pigs registered as humans shooed them out of their pens to shovel their waste. The exposure of the sewage revealed the ways in which Dobbe's infrastructures of energy and waste removal so often perceived or depicted as seamless and tidy, were actually a composite of fragmented practices, of homes not fully on the grid and materials that could not be fully domesticated to service it. Volker would not be remunerated for making and shoveling this shit; he would pay someone else to take it away. And yet, he too was a farmer of energy, tilling an earth that most would rather remained unseen.



## Chapter 4: Capacitating Women

*“Keine Energie mehr”*

As the spring of 2011 took hold, the ice and cold subsided and the first hints of green came back into the gardens and roadsides. Antje was outside frequently, digging new flowerbeds and throwing out trash from the housebarn. On days when I didn't have engagements planned, I made it a point to emerge from my house and go to the grocery store like everyone else that I knew. I cobbled together a routine from practices I'd picked up as a young woman and *Hausfrau*-in-training and from my time as a young single person, in Chicago and later in Texas. I spent a lot of time writing fieldnotes upstairs in my room, where my desk looked onto a stand of pine trees where pheasants roosted, calling and clucking as the sun went down. As the lindens between the house and the road filled in with warm-weather foliage, I felt strangely relieved that people wouldn't be able to see my windows from the street. But the people on the street weren't the only ones watching my movements. Antje caught my attention one day as I returned home from town. “You look pale. You're upstairs a lot,” she said, continuing, “I think perhaps you don't want to leave the house much. Maybe you feel like me, a little down, a little tired? Maybe you have this thing like I have—where you just can't do anything?”

I assured Antje that I felt fine, that I was just writing a lot, and asked her to elaborate on what she meant. “I just don't have any get-up-and-go [*Elan*],” she replied. She said that she had scheduled an appointment with the doctor for blood work to see what the deal was, but that she'd been in for these problems before. “I know that the

doctor must think I'm crazy, some woman who keeps coming in and they can't find anything wrong." I nodded sympathetically, listening to Antje articulate apprehensions similar to those which I had heard many of my female friends in the United States voice before. And then, her voice a shrug, Antje concluded, "I just don't have any more energy [*Energie*]."

While this phrasing may not seem unique to English speakers, Antje's use of *Energie* (a German word derived from Greek) diverges from conventional uses of the term in Germany, at least in regard to an individual's physical strength or endurance. As a German speaker, one would typically say *Ich bin müde* ("I'm tired"), *Ich bin erschöpft* ("I'm exhausted") or "*Mir fehlt die Kraft*" ("I don't have the strength") in such a circumstance. But Antje's use of *Energie* in place of these words infused the concept of *Energie*, normally the province of science and commerce, with new significance, as a quantifiable thing which an individual could possess.

Several weeks later, I used the term in exactly the same way that Antje had—"I don't have any more energy," or *Ich habe keine Energie mehr*—in a conversation with her daughter Eva. A few days later, unaware that I had knowingly imitated her mother's words, Eva cited it when explaining how my German is different because I am a native English speaker. "For example, it's funny that you say *Energie* when you're talking about yourself, about your own body," Eva said, noting the same discrepancy that I had picked up in my previous conversation with Antje, and attributing it to my special position as a non-native speaker of German. The novel use of *Energie* stuck out for both of us, compelling me to wonder what words work best where and why they come to mean

what they do. But Antje's use of energy also pointed to alternate ways of thinking about the body and particularly the female body and female experience as a potential site of capacitance, of storing energy for future uses.

### *Women and capacitance*

While the previous chapter examined how the category of waste is made manifest and monetized at multiple sites across and beyond Ostfriesland, this chapter considers how various aspects of the energy transition and its imaginaries converge at one particular site: the figure of the middle-aged woman, as lived and observed through women's lives in Dobbe. More specifically, it explores how women are constructed in relation to energy and to the energy development that is taking place around them, and also how women register the changes taking place around the village in their everyday lives. In what follows, I consider how their lives become objects of speculation for people attempting to make sense of the possibilities of the moments in which they find themselves, and the expectations of citizenship in such changing times. In these stories, the energy transition hums as a zone of possibility and in some moments, like the one mentioned above, as an idiom through which people make sense of their situations and the situations of others. Finally, I consider how my time with Regina, Antje and other women affected how I came to relate to the projects happening around the village as a woman and a body in the village.

Gender constructs have historically figured into German modernization projects, and gendered bodies have invariably provided the labor through which such projects have

come into being (Jones 2009). For German nationalists at the beginning of 20th century, and particularly for National Socialist ideologues, women furnished the womb of a sacred nation, vehicles through which the proper citizens came to populate the fatherland. As such, women were responsible for producing the “right” kinds of life, vitality and matter to propagate the nation (Rupp 1977). Women were not only an ideological locus of nation-building, however; women’s work was integral to projects on the cutting edge of German technoscientific development, including peat-cutting and farming, at the same time that the domestic sphere to which women were discursively relegated was a site of technological innovation. Although such work was not always attributed to them, women provided the bulk of German agricultural labor in the late 18th and early 20th centuries, ensuring the continued development of German farming and agricultural commerce in times of war and peace (Jones 2009; Stibbe 2003).

By taking up women’s experience as an object of analysis, I am in some sense returning to the longstanding questions of gender and affectivity that gave rise to many of the theoretical and methodological approaches that inform this entire project. While Germany is held to be one of the most progressive regions of Europe in terms of gender equality and women’s enfranchisement, the terms and processes by which these initiatives take form give rise to new and recombinant forms of distinction that are not without tangible social effects. As such, gender inequality persists in various ways across urban areas of Germany as well as in predominantly rural ones such as Ostfriesland. On a national level, it takes form in wage gaps between men and women, and in an uneven distribution of men and women across skilled and unskilled positions. While Germany

has a strong track record of women's enfranchisement relative to other areas of the global North and West, the inclusion of women has often resulted in unanticipated forms of social partitioning. Women emerge as a special population through the marking of spaces explicitly for them, many of which are dedicated to women's health and framed in terms of women's protection and the protection of any unborn children that women may potentially be carrying. As such, women attain enfranchisement through rehearsals of their own vulnerability (and familiar tropes of maternity) at the same time that they are expected to carry out labor that presumes and thus demands a limitless resource of productive energy, such as that energy which Antje perceives herself as lacking. While this chapter focuses primarily on women, this is not to say that women are the only people in Germany or elsewhere who are gendered through the energy transition (or gendered at all). Nor is it to imply that women are the only Dobbeners whose experiences of the energy transition are shaped in some way through their assigned or recognized gender. In the time I spent in the field, however, I found the divergence between women's talk about energy and men's administration of energy projects to be a productive source of inquiry and reflection, particularly as as a woman who has lived in Ostfriesland in plural capacities as a daughter figure, a housewife-in-training and most recently as an ethnographer. Additionally, because of my own experiences in the village, women's experiences (variously articulated as they were in terms of class, ethnicity and other contingent constructs) constitute a resource with which I am intimately familiar and upon which I can readily draw in conversation with others in Ostfriesland.

Through the stories that follow, and inspired by Antje's remarks above, I engage Dobbener women and their worlds in terms of *capacitance*, drawing from electrical terminology and anthropological work on endurance in the late liberal West. In electricity, for example, capacitance is the ability of a system to store an electric charge. Capacitors are devices made to store static electricity, or electricity in the form of pure potential. In other words, they make it possible to harness capacitance as a constant for the circulation and use of energy. Any object that can be electrically charged exhibits capacitance, as does every system of electrical conductors (although some forms of capacitance are more desirable than others, as I note below). As such, capacitors of various kinds are used extensively in electrical and electronic circuits (Bird 2010:61). Perhaps the most famous example of this technology comes from the early 18<sup>th</sup> century, when E.C. von Kleist of Pomerania filled a glass jar with water and then with electricity to create what would come to be known as a Leyden jar, history's first-known capacitor (Mills 2008). The historical depiction of German women as storehouses and stewards of the nation's productive force resonates with the figure of a Leyden jar, whose components must be optimally calibrated in order to avoid undesirable forms of capacitance from feeding back onto the energy circuit.

Meanwhile, in anthropology as in other social sciences, an idiom of capacitance emanates from conversations about capital accumulation as well as action, agency, will and effort. Most germane to the present work is Povinelli's idiom of capacitance, used in reference to struggles for recognition and endurance. While Povinelli does not explicitly theorize capacitance, it recurs across a number of her recent works, most frequently in

verbal form as she attends to the work of social projects that “capacitate” forms of life that are otherwise and seek to endure as such, or those which seek to become otherwise and to persist in these efforts (2012). Here capacitating may invoke a sense of enablement, amplification, actualization or animation. It recalls the capacity to affect and be affected in any number of context-specific ways. Similarly, in British cultural geography, affective capacities have recently been framed as sites and systems that are simultaneously formative of and formed by projects of biopower (Anderson 2011) and capitalism (Thrift 2012). The stories that follow explore how women’s bodies register capacitance, either by the women themselves, or through the inference and predication of others. In writing them, I consider how women are both capacitated by and capacitating of the energy transition in their midst, how people in Dobbe *expect* the current moment to capacitate women, and thus how notions of capacitance intersect with discourses of citizenship, politics and participation. Before proceeding, however, I will consider the limited ways in which gender earns mention in the popular discourses of the energy transition.

### *Gender in the Energiewende*

In news reports and policy papers about the energy transition, its proponents appear both familiar and abstracted: faceless corporate investors, farmers with the wind turbine leases and biofuel crops, or the technicians who maintain the technologies by which these resources are converted into energy. In nearly every case, these people are gendered male, either in the accounts quoted by reporters, or in the speech articles used to

define them in everyday conversation. Gender is invoked only in specific declarations of inclusion. “Women’s power is a strong energy source!” proclaimed a posted job listing from the energy conglomerate RWE. “At RWE, it’s promoted!” (*Frauenpower ist eine starke Energiequelle. Bei RWE wird sie gefördert!*) The headline was followed by an equally enthusiastic description of the various positions that await those who are qualified in engineering, business and the natural sciences, regardless of “whether they are male or female” (Staufenbiel 2014). In such instances, proclamations of gender inclusion connect the energy transition with postwar (and post-1968) promises of equal opportunity, while simultaneously framing women as the bearers of a unique power that can be made to serve the market. RWE’s *Frauenpower* is the trademark of a successful woman, fusing Rosie the Riveter’s bared bicep with Audre Lorde’s concept of a “deeply female and spiritual” erotic—“a kind of energy that heightens and sensitizes and strengthens all my experience” (Lorde 1984:53,59). And yet, beyond public relations rhetoric, there is virtually no information forthcoming about the relationship between gender and energy development in everyday life at the various sites where the transition is implemented, in boardrooms, office cubs, and laboratory settings, but also in places like Dobbe, in the informal networks and everyday interactions that drive a workforce increasingly oriented to renewables, and the spread of these technologies across rural communities and their environs. My time in Dobbe allows me to comment on the gendering of these latter phenomena, and in so doing, to call for greater attention to the often-idiosyncratic (and thus often overlooked) forms of distinction through which development takes form. But



before honing in on these phenomena, I will briefly consider how gender operates in everyday practices of socialization in and around Dobbe.

### *Gender among Dobbeners*

During my visits to the village, no social distinction was more frequently commented upon than the difference between men and women. Gender distinctions persist in Dobbe as elsewhere because they are continually performed and known as such, whether through naming or through an accumulated sense of distinction that is written on bodies as much as it is or isn't coded into language or law. Among other forms of distinction in Dobbe, gender differentiations emerged through leisure practices and through civic initiatives, many of which fed into one another or overlapped. Gender was also apparent in labor practices. For example, service industry positions around the village were almost exclusively female, while management positions were almost overwhelmingly male. Regarding leisure pursuits, aside from *Boßeln*, an historically East Frisian sport that includes both male and female players on common teams, Dobbe's sport clubs were divided into men and women's teams, from handball to soccer, leading to mostly gender-exclusive socialization after training and matches. Many social circles were differentiated according to gender, from the hamricher women's Nordic Walking group to the tea and breakfast circles in which I participated over the years. Such groups were the primary source of social connection for Dobbener women whose main occupation was childrearing and homemaking, even though most of them also had received vocational training and worked a number of years, and some continued to work

part-time or even full-time jobs in addition to performing household tasks or, in the case of the hammrichers, working on the farm. With the post-millennial scaling up of Ostfriesland's houses, gendered zones sprang up in Dobbe's domestic sphere: there were "men's rooms" and "women's rooms," some decked out with sports memorabilia and video gaming systems<sup>28</sup> and crockery and floral patterns, respectively.

With some interest, I came to realize that female and male Dobbeners socialized together only in certain circumstances: couples' evenings, neighborhood parties or festivals, area-oriented youth groups (whether sports clubs, social initiatives, Christian fellowships or confirmation classes), and family gatherings. In many cases, including my own when I was a single person living in the village, men associated with women in ways that suggested friendship, at least to a mostly middle-classed Anglo-American such as myself. But I never heard men around Dobbe refer to these women (or any women) as friends, or *Freunde* (or *Freundinnen*). It is a truism among Germanophiles that Germans claim fewer "friends" than do people in the United States, and the term *Bekannter* or acquaintance is one way in which connections are owned without the presumption of emotional intimacy or the entailments that such intimacy requires. Yet in Dobbe, I found that declarations of friendship were not as rare as they were restricted, cleaving exclusively along gender lines. For example, the male member of a heterosexual couple with whom I spent most of my free time was instrumental in keeping our relationship

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<sup>28</sup> I found that video gaming practices in Ostfriesland were also marked by gender distinctions. Online gaming groups sprang up across loose assemblages of male colleagues, brothers and neighbors, while some husbands and wives worked out together on consoles like the Wii Fit, which the women also played by themselves. As a female gamer, for example, I would never have been invited to participate in my male friend's Call of Duty clan, nor would I have expected an invitation to do so.

afloat through email and later Facebook messaging whenever I was in the United States. This practice that was both endorsed and encouraged by his wife, to whom I considered myself to be equally close. In conversations with friends, however, he has always referred to me as his wife's *Freundin*, or their collective *Bekannte* (at the same time, she would refer to me as *their* friend, *unsere Freundin*, as readily as she would call me her own—*meine*—friend). But the idiom of *Bekanntschaft* comes quite easily in speech; so readily, in fact, that I realized that I was also using similar terminology once I became fluent in German without having been advised to do so. The idiom of *Bekanntschaft* is invoked fairly regularly across the village, as overwhelmingly heteronormative, mostly-coupled Dobbeners refer to intimates of the opposite sex as the friends of their partners, or as collective acquaintances. In communities like this one, knit closely through historical and ongoing practices of neighbor surveillance as well as shared privation, *Bekannte* works to forestall speculation as to any illicit activities that might otherwise be taking place between people of opposite sexes.

For all that it is taken for granted, and perhaps because it is so commonplace, *Bekanntschaft*—roughly, acquaintanceship—is a surprisingly labile category in everyday conversation. It morphs in tone and scale to accommodate a range of social connections, working in some instances to place distance between a speaker and the subject of speech, and in other instances, to enable a relationship between these that would otherwise remain taboo if expressed in an idiom of friendship. And so *Bekanntschaft* is a space of open copresence, where the unexpected may happen and information may be fashioned and exchanged without recourse to the normal responsibilities of friendship. Ordinary

life is punctuated with such moments of *Bekanntschaft*, where people come together for a variety of logistical reasons. People who work at the same companies share rides into the city; parents of opposite sexes alternate in dropping children off and picking them up from swimming or music class. There are fitness classes at nearby gyms where people meet and make small talk across gendered lines. And again, there are local organizations that take part in service work and social initiatives. Such spaces of *Bekanntschaft* are marked by an emphasis on a common goal, rather than an acknowledged desire for companionship or emotional intimacy. As the stories that follow illustrate, however, only certain people are afforded these opportunities for *Bekanntschaft*: skilled workers, mobile laborers, parents of children who are old enough to have friends of their own, but not yet old enough to drive or get rides from siblings or friends. As such, experiences of *Bekanntschaft* are also classed, and different lifestyles offer different ways of incidental being-in-common. In settings like Dobbe, where vastly more men work full-time outside the home and women bear most of the responsibility for childcare, men generally have more opportunities to engage in *Bekanntschaft* than do women. Yet women too claim *Bekanntes*, whether through planned social engagements such as my neighborhood tea circle or through civic initiatives. One way of thinking of the difference between acquaintanceship and friendship is that this difference lies not in the categorical presence or absence of emotional intimacy per se (where emotional intimacy denotes intensity of social exchange as much as or even more than personal confidence) but rather in the expectations one is willing to publicly claim in regard to another person. Friendships denote intimacy that ranges across a number of social contexts and situations, and that is

expected to last the length of one's life. Acquaintanceships denote intimacy that is usually incidental, presumably finite, and always contingent upon a shared goal or objective.

These different uses of *Freundschaft* and *Bekanntschaft* furnish context for the anecdotes of women's lives and experience that follow here, in the sense that varying social settings and the terms Dobbeners used to articulate them index the spaces in which women's relationships to the energy transition were articulated. The stories that I relate below stemmed largely from moments of emotional and conversational intimacy both planned (as in the case of the women's breakfast and tea circles) and incidental (asides in the midst of other activities, such as childcare or housework). While my degree of marked intimacy (acquaintanceship or friendship) with my interlocutors varied, the material presented here nonetheless offers a sense of how women are capacitated by and capacitating of the social and technoscientific projects that make up Dobbe's energy transition.

### *Women (energy) workers*

In Dobbe, I failed to find any women who worked directly in the renewable energy industry, although such female workers earned mention in passing, whether by people like the Jonkes, who had hosted a female consultant who was in the area for several weeks, or like Karl, who supervised several admins in his division at Energo. These women lived elsewhere—in cities like Aurich, or much farther away. Of those women who lived in the village, and who are the primary focus of this chapter, I observed

that while many discussed the energy transition and the possibilities it offered to them and their families, the actual decisions regarding investment or installation (as in solar panel installation) were, in an overwhelming number of cases, made by men as heads of their entire household. Women did the talking about what was happening; men were the ones who made things happen. Men's names were appended to the projects that took shape around the village. These different worldings of men's and women's roles in Dobbe's energy transition were not explicitly framed in terms of gender, but rather understood and lived out in ways that reinscribed males and females as ontologically distinct. At the same time that men came into focus as the primary architects of the renewable energy projects taking place around the village, and networking between women was not seen as pertinent to the concerns of the transition, women were also performing infrastructural work on the grid by virtue of their continued homemaking (regardless of whether they too were employed outside the home) and social networking, both of which produced venues for planning and deal-making. Women's conversations were a kind of phatic labor in the sense that they were seen as unrelated to men's concerns and unconnected to capital. Yet these conversations produced and disseminated information that could become critical in planning and negotiations. Furthermore, the figure of the female body and its extensions in everyday settings incited statements by women that invoked the energy transition in tandem with concerns as to how one might behave, make do, and flourish in the face of such an onrushing present. Such statements wove imaginaries that indexed interlinked logics of power, animacy, and gender that operated in Dobbener's everyday lives. Thus Dobbener women were energy workers

even though they may never have set foot in an energy concern or worked directly with renewable energy technology. In some settings, as I note below, women were also energy workers in the Anglophone New Age sense of the term, taking up alternative medical practices in the search for the best energies and vibrations with which to make one's life in a newly energized everyday. In these ways and others, women's bodies provided one particular nexus of percepts and concepts at the meeting of cultured expectations, aspirations and capital dreams.

*After flourishing*

When Antje referred to herself as capable of possessing energy—expressing disappointment because she lacked it—she made of herself an electrical system, and specifically, a system without capacitance by virtue of the fact that all of its energy is spent, with no power with which replenish it. Her words reduced her existence to an empty capacitor that requires new vitality from an elsewhere that is not yet known. Energy hums as a thing to be possessed, as a thing that should for all intents and purposes be ready to hand, but which falls short. Of course, what Antje indicated is not that she possessed no energy, but rather that she lacked the energy required to flourish, to be alive in a certain set of ways. She was speaking from a place of endurance rather than from flourishing, yet conjuring flourishing by invoking its absence.

Antje's words reminded me of Orvar Löfgren's study of "burn-out," that Anglophone concept that jumped the Atlantic Ocean and landed in Sweden (as elsewhere) as a kind of pop psychological diagnosis reserved for men in white-collar

positions, or those who located themselves as such. As much as a condition, Löfgren found, burn-out was also a kind of performance that reorganized sufferers' everyday lives: "To be described . . . as burned-out signaled a special and dramatic transformation, in which you were drained of energy and life, so work seemed meaningless, your body was aching, your memory gone, and you felt finished" (2007b:58). And yet, Antje's words illustrated not that she lacked energy, but rather that she was energized in different ways than she sought to be or thought she ought to be. For even as she found herself unable to complete the tasks she considered to be part of her everyday life, she was pulled into other labors—the work of calling doctors and making appointments (consultations, bloodwork, follow ups), putting a hold on her gym contract (she'd gotten a membership back when insurance was offering subsidies for it), of sharing her ailments with others like me, and of being somehow sick: lying down more often than normal, yet sleeping not nearly as much. There was the work of stopping smoking, which she had started again; there was the work of obtaining and drinking non-alcoholic beer because everyone else drank the real stuff. And there was the constant awareness of being watched, of the potential perceptions of others, whether a doctor who might think she was crazy or the other women with whom she usually drank wine or went Nordic Walking.

Perhaps one way of thinking of Antje's situation is not that she lacked energy, but rather that she was awash in another kind of energy, indicating not negative capacitance as much as capacitance that could not be articulated in terms of an imagined right way of being in the world or getting things done. This is not to say that Antje was not experiencing serious limitations in her everyday life. Nor is it to argue that these



limitations did not stem from physical shifts in her bodily makeup. Rather, it is to say that limitations were co-morbid with other ways of being that were off the radar of her everyday life and the expectations in and through which she ordered her world.

A month after we spoke about her condition, Antje told me that her blood test results indicated that she had glandular fever. She was pleased to have a name for her condition. It made sense that she had it, since she'd had it once before when she was a teenager, and she'd heard that these things stay in your system for a long time. I detected a pleasure in her eyes as she told me the story, relief at the prospect of physical improvement and narrative closure to her dangling medical mystery. In the weeks that followed, she said that she was feeling a little better as she continued to rest and recover. And then one morning, after Hard left for work, she sensed that something was out of joint. She looked in the hall mirror and found that her face had slackened on one side. Without stopping to call anyone (she knew the doctor would be in), she drove herself straight to the doctor's office in Emden. The general practitioner took one look at her, declared it a stroke, and sent her to the hospital in an ambulance—"with blue lights [*Blaulich*] to the hospital." By the time Iko and Eva drove into Emden to pick up her car that night, the doctors had ruled out a stroke. By the next day she had a preliminary diagnosis of Bell's palsy. Nobody could tell her where it came from, or where it was going. They kept her in the hospital to run tests, make sure nothing else happened, and develop a plan for physical therapy.

Antje spent a week at the hospital as they monitored her and tried to restore movement to her face. They gave her a sheet that listed all of the facial muscle exercises

she was supposed to do. When I visited her in the hospital she performed them for me, noting how the side of her face stayed frozen slack despite everything she tried. She shared the room with three other patients, and all of them discussed their situations on the most intimate of bodily terms, yet nonetheless referred to one another in High German as *Sie*. One woman had had spinal surgery; another, a strange abdominal mass she called “mellon belly.” The third was from the south, having landed in the hospital with some unknown ailment while visiting her son in Emden. Watching the women help each other around the room, talking about their children and the doctors put a new spin on stranger sociality: hospital intimacy in a formal register. Meanwhile, back at the house, Hard and the children kept up with the cooking. When Antje finally returned home, she went back to housework but also kept up with her exercises. It took a few weeks for her face to return to normal, and she never made it back to the gym. Eventually she rejoined her Nordic Walking group in their weekly walks. Leading up to it, she said she knew people would be asking about her, expressing concern, or at least just thinking about it all the time. She busied herself with negotiating all the imagined situations that lay before her. When last we spoke, she had been diagnosed with sleep apnea, and it was possible that this was the cause of the whole thing. She was having trouble coming to terms sleeping with the continuous positive air pressure machine and mask that the doctor had prescribed. The search for a cure continued.

Antje’s search for revitalization speaks to the search for some kind of narrative to hold onto in the aftermath of other narratives’ crumbling. Despite the immense technological advancements that have swept across the village, and the promise of capital

gains from new ventures here and elsewhere, inherited models of flourishing were increasingly impossible to maintain or to strive for. Antje came up in the sunrise of the economic miracle; she married a farmer's son and became a businesswoman, only to watch these narratives fall apart with the stock market crash, as her family's spending became untenable with the evaporation of their cash flow. The move from agriculture to speculation catapulted them into an economy of appearances that held for a time before giving way to an unanticipated life on the edges of the agricultural service industry. Hard made house payments with his income from driving a tractor, and Antje performed the labor of keeping the family networked with other landed and propertied families through her unpaid work with the Land Women. After the fact, it was easy to make pronouncements on how things could have gone if they'd had better luck: if only their agent had advised them to invest in wind rather than shipping, maybe they would have been able to stay in their old home. Theirs was not the future they had planned for themselves, but if they had failed to sustain such a future, the space in which this failure took form was a full one, teeming with concerns, responsibilities, intrigues, and promises, none of which evoked the sense of narrative in and through which their former life had arced. Now established at the farmstead, Antje is left to wonder what will come next, seeking attachments in and through which she can orient herself. To predicate and palpate unfolding worlds, one requires a certain security of stance, or at least, the ability to dwell in attunements. Once a self-styled businesswoman, Antje is now neither a conventional housewife nor a seasoned professional, yet she has capabilities, and feels the promise of the development taking form in her midst. There was the patent that her

son Iko talked about taking out on a piece of farming technology. There was the possibility that their friends will let them in on the planning meetings the next time the wind park will be expanded. There were the parties to plan and budget for; through these, they would maintain their standing in the community. Each of these orientations marshaled her productive forces, and more than that, required acts of maintenance that may have been noticeable to Antje. Her everyday life was no longer energized in ways recognizable to her, but it was nonetheless in motion.

Even the most burned out of bodies is a space of vitalities. Perhaps one way to think about Antje's modes of endurance in the midst of a series of inexplicable ailments is that they indicate not a predominance of negative capacitance as much as they do an increase in alternate capacitances, alternate in the sense that they are not what one desires or expects. They are a space of unruly energies, of vitalities that escape control or incite new orders of living. In electrical terms, a useful parallel is parasitic capacitance: an unwanted capacitance that is produced by the proximity of two elements whose internal capacities set each other off, so to speak. In parasitic capacitance, the capacitances of a system's constituent parts work to undermine that function of the system itself. And so recurs the parasite: the notion of that noise without which no signal could exist (Larkin 2008; Serres 2007). Antje's frozen face registers a body out of sync with her normal behavior, refusing to square with what some might call her will, or at least her expectations. One could say that Antje's slackened face is another manifestation of her enervated state, further evidence of the fact that she has *keine Energie*. But it is also possible to say that Antje's bout with Bell's palsy is a moment in which energies that we

might call “fugitive” welled up in her body. If feedback is inevitable in any context where a circuit is established, then some forms of feedback are more easily managed than others.

The following section considers how the body of another woman—Regina—is perceived by others to be in such a state; deviant from expectations as to how one’s body should be and what should be done to rectify such a situation. Here particular kinds of animacy—and particularly loudness, as well as a sense of depression or malaise—become forms of deviance that require correction, or at least address. In so doing, those who make sense of Regina as a body in the the world trace out expectations of how one should be in the world, and what opportunities might be had in a time of renewable energy development. The figure of the female body and its perceived excesses incite forms of scrutiny and concern that are also indexical, tracing imaginaries of the better life and its promise in a time of energopolitical transformation.

### *Meeting Regina*

Regina moved to Dobbe in the fall of 2002 with her soon-to-be-husband Volker Janssen, who bought one half of the Adlers’ old duplex house and the entirety of the old plant nursery behind it. Regina had met Volker less than a year before, on a blind date arranged by his only (younger) brother. Regina had lived in Emden since her teens, but she was originally from the Ruhr Valley in central Germany, an area that commentators now call “Germany’s Rust Belt” or the “German Detroit,” the dying embers of Germany’s 19<sup>th</sup> century coal and steel boom, and the most populous region of Germany.

Her childhood was a complicated one and she moved to Ostfriesland at the age of seventeen after meeting a man there on vacation. Through sometimes-debilitating asthma and anxiety, she finished the *Realschule* and earned her certification as a kindergarten teacher. She gave birth to her first daughter, Angelika, and the two lived together in a suburb north of Emden while Regina was working as a kindergarten aide. She and Volker hit it off the moment they met, and they had only been seeing each other for a short time when he proposed.

Volker was a foreman at the nearby harbor authority. He came from what would now be considered an old Dobbener family, and he grew up not far from the oldest part of town. His mother Jantje had been born in Dobbe, and his father Enno had grown up in a village a few miles away. As an adult, Enno had gone to work for a nearby harbor authority and so did Volker, decades later. But both of them spent their winters cutting reeds an hour away in Wilhelmshaven since these were now the closest available marshes. Volker was a bachelor well into his forties, spending all of his time working, taking his vacation time to cut reeds with his father and his younger brother, and when he bought the old Adler Nursery, he did so with an eye to refitting the complex to accommodate his growing side business and all of the tools and materials he had amassed for it. Shortly after their engagement, he bought the property in the Dobbenweg and they moved there together in the fall of 2002, once they cleaned out the mess that Adler's successor had made of the duplex house-half. When they took over the property, my German mother Elfriede Adler still owned and lived in the other half of the duplex house, and she had quickly befriended them upon their arrival, deeply relieved to be rid of her

husband's former apprentice, who had trashed the house and let the plant nursery go (literally) to pot, terrorizing Elfriede by keying her car and screaming into the night at random intervals on the other side of the fence. If neighborhood (*Nachbarschaft*, which implies not only a place but a state of being) was a shared spirit world (Santner 2006) as much as a physical space, then the old apprentice had filled Elfriede's with night terrors. But Volker and Regina promised a breath of fresh air, and Elfriede was pleased to call them her neighbors.

Elfriede's anticipation of the Janssens recalled Jane Austen characters expecting new arrivals from the landed gentry. Yet my initial encounter with Regina was more jarring than it was genteel, including none of the pleasantries that would normally follow a first meeting with new neighbors. When I first met Regina she was in the middle of a panicked search for Angelika, who was blind in one eye and had limited sight in the other due to childhood glaucoma. She was legally blind, but she could see enough to attend and participate in school with the aid of a special device that magnified all of her reading materials. On the day that I met Regina and Angelika, she had been playing in the glasshouses with a new friend from school, but hadn't come in when Regina called for her. Regina rang the doorbell to ask Elfriede for help when I happened to be home visiting, and all of us fanned out across the property together to look for Angelika. While the others searched the plant nursery, I ran up the road alongside them, looking for the girls playing in the ditch that lay between the road and the glasshouses. As I ran, Regina, whom I had not yet actually seen, materialized in panicked howls for her daughter, echoed by the voices of my German family and myself as we called Angelika's name.

Her terrified voice echoed over and over until Elfriede appeared behind me to let me know that they had found Angelika at the other side of the property. When I made it back to the duplex I saw Regina for the first time, scolding a little girl wearing an eggplant purple coat. Angelika smiled at her mother before disappearing into the house with her playmate. Regina thanked us quickly, loudly, and not unkindly, then returned to her kitchen on the other side of the wall. And so the first images I registered of Regina were more aural than they were visual, entangled with the ongoing work of caring for her daughter, spun out of fear and edged by the winter's chill.

Regina and I became neighbors when Elfriede moved to a city in the south and I spent sixth months in the latter's house from 2003 to 2004. The women on the west side of Dobbe had a tea circle that met once a month, each time at a different person's house. During the six months I spent in the other half of the duplex house, Regina and I came early to each other's homes to help out when the other one hosted and since I was carless, she gave me rides across the backroads to the other neighbors' homes. We also breakfasted together each week. As she was nearing full term in her second pregnancy, much of our conversation revolved around the baby. When she hosted tea, she set the table with cheese and rolls and also *Mettwurst*, raw meat spread onto rolls with butter and onion slices. The *Mett*, she noted, was for me, since pregnant women weren't allowed to risk the bacteria in raw meat. When we weren't talking about the baby, we philosophized. Regina shared her dislike of cleaning windows, and more specifically of the way that other women in the village spoke of cleaning windows as if everyone had to



do it. She repeated things often, whole sentences recurring in the course of the same interaction, or across multiple visits.

“We should go into town,” she often said. One day as we were clearing away the breakfast plates, we realized we did indeed have time to drive into Emden before Angelika came back from school. Off we went, two women piled into a tiny blue Opel, driving for ten minutes down a curving road lined with linden trees and small red brick houses until we reached Emden. Our destination was one of the last local department stores in the city center. (After the Autobahn was extended all the way into Emden, these stores would shutter or move to the more affordable strip malls on the edge of town, and chain stores would move into the old storefronts downtown.) Regina led me to the linens, entreating me to feel their texture; what a fine store this was. She bought some towels. We ate fast food from a chain restaurant in the pedestrian zone. Then we piled back into the Opel and back up the curving road to Dobbe. The road arced upward onto an overpass, above a canal and some houses. We dipped back to earth, halfway home, and suddenly Regina slowed and pulled onto the shoulder.

“This is my stretch [*meine Strecke*],” she said, eyeing the road beyond. It stretched ahead and curved to the left, and the handsome linden trees followed it, revealing pasture and grazing land on either side of the road. “When I drive alone and I get to this point and I see nothing, then I have my panic. What if something happens and no one comes?” Her tone was one of outrage. “There is nothing here [*Hier ist nichts*]!” On the word *nichts* her voice sounded a dissonant chord, indignant and pleading. She passed a hand over the horizon above her dashboard, challenging me to try and find signs

of human habitation that were surely there, if obscured by the linden trees. The nearest house was surely no more than ten minutes away by foot. Cars passed that way all the time, but at that exact moment, I saw no other cars on the road. I imagined us stalled out there. In the far distance, some black and white Frisian dairy cows observed us. Then, as abruptly as she had stopped the car, Regina shifted gears and drove on home.

During those months, I came to see Regina's life as shot through with anxiety that pooled in places and situations, bursting forth at random moments in the course of everyday life. In general, these moments were indexed by the tone of her voice and its modulations. When Angelika was lost in the greenhouses, Regina's voice rang out like a keen and a klaxon. As the years went on and Angelika grew into a teenager unwilling to come downstairs when it was time for her eyedrops, Regina's voice transformed into a bellow. The most consistent aspect of Regina's day was Angelika's eye treatment regime, a series of prescription eye drops needed to keep Angelika's ever-rising eye pressure from overwhelming what remained of her vision. It was the most consistent aspect of Regina's day because it was non-negotiable. The dosage times waited neither for naps, nor undone laundry, nor conversations with guests. And so visits with Regina are also tuned in the meter of the treatment world, as conversations between host and guest were punctuated by Regina's yelling up into the second story of the house to summon Angelika downstairs. But Regina had many other routines that took form in and through the meter of her daughter's dosage: preparing breakfast, lunch and dinner for her family; stealing naps where possible, only to be awakened through a barrage of allergic sneezes; telephoning almost daily with at least one of her sisters in the Ruhr Valley,

greeting Volker when he returned home and setting out rolls, pastries and cappuccino for Volker and Enno, Regina's father-in-law, when he came to help Volker refit the glasshouses.

There was, as Volker said, much to be done in the glasshouses, but it was unclear to the villagers and often to Regina exactly what the men were doing out there. A few years after Regina and Volker moved to the Dobbenweg, Volker's reed-cutting business had fallen by the wayside after a falling out with his younger brother, leaving Volker and Enno with a sprawling complex that had to be dealt with one way or another. And so the men spent hours working out back, disassembling parts of the structures to convert them into something else. All the while, Regina said, she hoped that one day the work would be over, yet at the same time, any notion of "one day" simultaneously conjured the specter of her daughter's encroaching blindness, a future that seemed inevitable even as she sought to forestall it. Most of the people around Dobbe considered Angelika to be as good as fully blind. The term *Sehbehindert* is a catch all for blindness, as the word *Behindert* is for handicapped. The two bled together, causing Angelika to be typed as fully blind, even mentally retarded, as in the common but politically incorrect retort, "are you retarded [*bist du behindert*]?" Local ontologies of disability placed her on one side of a clear dividing line, enacting a final outcome of total blindness that, for Regina and Angelika as well as Volker and Laura, has not yet arrived and hopefully never will.

Regina's life spun out of her interface with things, the machinery that drove the survival of family in its present form. Little worlds were woven from these interactions, angles of attention with the potential for pleasure and camaraderie, whether in talking

about housework, strategies for getting the best cold cuts at the grocery store, or the various medicines to take for different ailments. Over the years, our conversations often turned from talking about Angelika's meds to talking about our own conditions and our own prescriptions, dumping out the contents of Regina's *Hausapotheke*<sup>29</sup> and those of my purse and comparing our various meds, and more recently, exploring their active ingredients together on the Internet. Such things open onto spaces of making, as women discuss what does and doesn't work, co-authoring troubleshooting mechanisms for ordinary lives and sharing and comparing desires and possibilities. "Imagine being able to buy something like that at the grocery store," Regina once exclaimed as she eyed a giant bottle of Ibuprofen that I'd bought at a chain supermarket in the United States.

With her everyday life firmly oriented to homemaking and her husband working at the harbor authority, Regina would say that she has nothing to do with the renewable energy development unfolding around her. She and Volker had requested a cost estimate for solar panel installation on the glasshouses, but they decided the price was too steep to continue, and that was the extent of their participation in the energy transition. Their relationship with these projects cannot be mapped in terms of public institutions or initiatives because of their ambivalence toward them, even as they dominated the field of possibility in which they were located. Yet although Regina did not explicitly take a position regarding the energy transition, she was copresent to it and positioned to its manifestations in and around the village. As "actual political subjects," Regina and Volker performed a "*life bricolage* with the limited choices and materials at hand" (Biehl

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<sup>29</sup> The *Hausapotheke* or "home pharmacy" refers to one's medicine cabinet, or any place where a family's collection of medicinal remedies is kept.

and Locke 2010:336, emphasis original). As they made a life in concert with certain people and more-than-human things, their and particularly Regina's machinery of making do exhibited numerous kinds of capacitance, excesses that seeped or surged into the everyday of others, giving rise to speculation that was a worlding of its own. For some in the village, for example, Regina's yelling cohered into a kind of assault, interpreted as an almost willful bad behavior. ("How she yells," one Dobbener exclaimed when she learned I was close to Regina, holding me accountable for my associate's behavior. "How she yells at that poor little girl, who should be sent to a blind children's school to be with her own kind.") Another excess was her weight, which has seesawed over the years. Through other people's interpretations of these excesses, a world of expectations comes into view that postulate ways of being energetically—and in the energy transition—at the same time that they frame her as a problem to be solved.

### *Wait watchers*

When I came back to Dobbe for fieldwork in 2010, I found that Regina had joined a rotating women's breakfast circle with Angela and four other women from the new neighborhood to the north of the village, and I was soon invited to take part as well. The rest of the participants had met through their children, at a neighborhood meet-up for toddlers and their parents. Living on the other side of town, and relatively isolated from the rest of the community by virtue of her location and her late arrival to the village, Regina happily joined the group after her younger daughter Laura befriended their children in kindergarten. When it was Regina's turn to host, her table was always the

most generously set, complete with *Mettwurst* and multiple kinds of meat and cheese, as well as Nutella. Her enthusiasm for the group was palpable, as was their acceptance of her, as all of them swapped stories about their children, their neighbors, and their husbands.

Over the year that I attended the breakfast meetings, Regina missed quite a few of them, citing doctor appointments and general stress as Angelika's eyesight worsened. When Angelika required a series of emergency sclerectomies to relieve her eye pressure, Regina stopped checking in altogether. The work of waiting for Angelika's blindness had engulfed her life. At each of the meetings she missed, those in attendance shared the latest news they had of Angelika and her condition, but the conversation frequently turned to Regina's health, her weight, and the frustrations they presumed that she had based on the things that she had and hadn't said, and what they inferred from their own observations of her life.

Maike, one of the regulars in the breakfast circle, usually pushed the conversation in this direction, putting a pedagogical spin on Regina's apparent condition. "Of course, if you buy those unhealthy things, you're going to gain weight." The inference as to Regina's shopping habits comes in part from what she serves at breakfast, but also from Regina's mentions of pastries and cakes in her conversations about the children's afternoon snacks, or the jam-filled Berliners that Regina likes to have on hand when her father-in-law is working in the nursery. "She says those things are for the children, but you know she eats them too," Maike continued. "You know it's because Volker is always working on the glass houses. What kind of life is that? They never go anywhere,

never do anything special.” Angela and I chimed in that we offered to take Regina Nordic Walking with us, but she wouldn’t go. We reasoned that some movement would help her get her spine in shape. Although we may not have all had identical opinions as to why Regina’s life was the way it was, our remarks together constructed Regina as a problem to be solved, or a wound of unhealthy attachments that we could help heal if she would only let us. I could sense it happening even as I was complicit in it, through my remarks and through my tacit acceptance of the conversation itself.

It was in this context that Maike mentioned the possibility of solar panels, noting that if Regina and Volker would only convert the old plant nursery to a solar array, they would reap enormous benefits. Various people had said this to me before, knowing that I was historically connected to that structure through the Adlers and through my friendship with Regina and Volker. “How much money they’d make, if they’d just put solar panels on the roof!” one Dobbener explained. A common conceit around the village was that Volker somehow “had money,” presumably because of his civil servant status at the harbor authority, and thus that his seemingly Sisyphean work in the glasshouses made no sense. If he had money, one might ask, then why wouldn’t he install the solar panels? In the face of such repeated remarks, I found myself wondering why they presumed that Volker had money, and that there was a proper way to spend the money if he had it. Furthermore, why would solar panel installation in particular furnish a solution to Volker and Regina’s problems?

In these moments, Regina and Volker’s actions hardened in the eyes of onlookers into a kind of refusal of the better life promised by the new technology sweeping the area.

Together, Regina's seeming unwillingness to work on her health and Volker's seeming unwillingness to stop working on the glasshouses provide a situation onto which others can predicate their notions of what promise and possibility looks like for people like Volker and Regina, or what it *would* look like if they were willing to pursue it. Through the remarks of others, the glasshouses and Regina's body perform a tragedy of unused potential that demands an explanation and a scapegoat. As Tsing notes, to those who believed in state-regulated agriculture, "only outlaws would refuse the gift of state fertility" (2012:146). In a sense, one could also apply this logic to the Dobbeners' comments about Volker and Regina: only a problem, a flaw, or churlish behavior could prevent people of their socioeconomic standing from engaging in the great promise of the village. By sidestepping these predictable futures, Regina and Volker coalesced into figures like Melville's *Bartleby the Scrivener* or Shakespeare's *Caliban*: they index "the possibility of another type of subjectivization, another model of humanity" (Lupton 2000:13) or, more concretely in this context, another way of being aspirational in the village.

Although Angelika's vision loss was and remains dire, I do not wish to imply that the Janssens' life and circumstances are more exigent than are those of the others in Dobbe or the breakfast circle. Nor do I wish to dwell on the question of whether the people of the village were accurate in their assessment of Volker's wealth. Rather I find it remarkable that they presumed this in the first place, at the same time that I find it useful to consider how it is that a life lived differently comes to be understood as a problem to be solved. In the scene I describe above, the breakfast circle becomes a



treatment world of its own, a performative genre oriented to the improvement of others' lives in accordance with what the would-be improvers imagine to be the better life that evades the person in question. As Susan Lepselter writes, "The spaces of *departure* from the rooted signs of class position are often the most intricately imagined, as well as the most despised." Through the figure of Regina, her purchasing of the finest groceries, her husband's seemingly senseless work in the glasshouses, and the shirking of gatherings because of her daughter's situation, Dobbeners sense out a "parallel shale of desire exposed amid the pervasive narrative culture of class mobility" (Lepselter 2012:145) and seek to reign in such unruly energies by predicating a recognizable model of social and economic citizenship onto them. As gossip electrifies a room or a gathering, it also makes of Regina a model to be ported into other contexts, a cautionary tale of what happens to someone who doesn't use their time or money to care for their own self in the way that they should. And so Regina is framed as an enervated subject, because she is, like Antje, often exhausted relative to the tasks she is expected to perform. Less appreciated are the ways in which Regina may be otherwise capacitated or *energized differently* by the lifestyle that she and her family have, and how this may not square with certain notions of citizenship and collectivity to which some villagers acquiesce, and particularly those that inhere in the spread of solar panels across the village.

Performing a theoretical synthesis of affect and biopower, Ben Anderson theorizes the emergences of a "new pathological figure" in neoliberal frames: "the individual or group that makes the wrong choice and is forced to take individual responsibility" (2011:40) for things that go awry or spill out of their assigned categories.

And yet, in everyday situations—beyond the realm of ostensibly life-shattering events, such as manmade disasters or market crashes, the processes by which people might be found to be deviant and forced to take responsibility are unclear. The process by which Regina emerges as a “special case” is located not in one named or specific event, but rather distributed across numerous moments and situations, a series of “quasi-events” (Povinelli 2011). Regina’s pathology emerges from the inconsistency of her presence and from the ways that she is animated (whether through loudness, flatness or exhaustion) that stick out and compel the attention of those in her midst. To return to the language of capacitance, Regina is a capacitor gone amok in the sense that she is calibrated to different tasks than those that her friends understand. She operates at a different velocity, a different tense (Povinelli 2011), or in an alternate time (Felski 2000), feeling historically (Berlant 2008b) in ways that seemed strange to the rest of our group.

### *The limits of energy*

Maïke was the breakfast circle’s self-appointed program director, arranging for a cleaning products saleswoman to visit our group for a demonstration every six months, pushing for field trips and outings, and always presenting some new piece of crockery or China when she hosted breakfast in her newly-appointed women’s which was awash in floral patterns and upholstery. (Maïke, her women’s room and the corresponding and much larger men’s room were located in a sprawling house, part of the newest development on the north side of Dobbe, just before the turn to the municipal seat at Wälder.) Under her unnamed direction, the breakfast circle was like a laboratory for the

good life. One morning she suggested that we all go to one of the *Klangtherapie* workshops in a neighboring village. *Klangtherapie* or “sound therapy” was the latest trend sweeping the area. Known in English as one form of sound therapy, and generally understood in the United States as a New Age healing practice, it uses “Tibetan” sounding bowls to bring the chakras into alignment through the production of beneficial tones. Antje had also mentioned it to me before. Some members of her rural women’s organization had also taken part in a session. As she and the brochures described it, the body was a resonance chamber; by placing the bowls next to one’s abdomen, it was possible to tune the body into frequencies for optimal health and functioning. Here sound therapy works like an intimate rehearsal of the energy-civilization premise, where the proper calibration of the body will bring forth better living.

When Maike mentioned the workshop, the rest of us were willing, except for Angela, who shut down our plans to attend workshop with the words, “You are all welcome to go, but I have my Christian beliefs.” For Angela, sound therapy amounted to dangerous superstition. Maike attempted to convince Angela that this was not a religious practice, but rather a medical one. Angela would not be moved, and the discussion fizzled out. Angela had been raised as a member of her local parish, but in her late twenties, she had accompanied her father to a free Christian church just north of Emden, and it was there that she and the children now went every Sunday morning. She had officially withdrawn her state church membership, but her husband Karl retained his so that their children had the option of being confirmed in Dobbe alongside their neighbors. Angela’s refusal to participate in the sound therapy workshop appeared contradictory to

her non-evangelical friends (who were also members of the state church of Germany), for whom the sound therapy was not unlike treatments one might receive on a state-subsidized rest cure. But Angela's religious adherence necessitated constant attention to consumer choices, and so her children were prohibited from watching Harry Potter films or celebrating Halloween as some of the other children in Dobbe had begun to do at the same time their bedrooms were chock full of Legos and Playmobil figurines. What some saw as extremism was for Angela a mindful worldiness, an alternate way of being modern. Angela's overt refusal and the ripples it sent across the room illuminate how the mundane pursuits of a Friday breakfast circle have the potential to crack open the everyday or to smooth out its fissures in any number of ways. By rejecting the sound therapy session, Angela confounded Maike's framing of the group as a kind of social laboratory that experiments in the pursuit of the better life. I never heard other members of the group discuss Angela's decision in her absence, but Angela and I were close, and this may be the reason why it was never mentioned in front of me if they did discuss it. Her rejection effectively severed the circuit of conversation on the subject in the shared space of the breakfast table. Angela's overt confrontation with Maike, however friendly, rendered the topic effectively moot, whereas Regina's lack of confrontation—or rather, the lack of confrontation moments between Regina and those who would seek to manage her or incorporate her into their program of the better life—allowed the question of her life and its flourishing to fester among the women of the breakfast circle as it did among other Dobbeners. In each circumstance, however, shifting spaces of difference, resonance and solidarity opened up between women and others as they came to grips with

living energetically in a time when energy attained new significance and new kinds of value.

Energy courses through these stories in multiple ways. There are the energetics of encounter—the contingent but repetitive dynamics of being in common, which are also poetic in that they fashion forms and attitudes through which others come to be known and engaged. Energy is implicit in the animacies that people exhibit themselves or posit in others—Antje’s exhaustion and frozen-slack face; Regina’s anxiety, loudness, and physical presence; Maike’s enthusiasm for betterment; Angela’s refusal. As people sense out their capacities to carry out certain tasks and postulate these capacities in others, they index imaginaries for being energetically in a space where energy is increasingly seen as a thing to be possessed, maintained and marshaled by individuals as well as corporations, landowners, and technicians. The concept of *Energie* materialized in any number of situations where revitalization was possible or desirable, scaled to fit social situations, personal problems, or political quagmires. The stories that I relate here evoke a kind of *Frauenpower* where women conjure energy as a personal quality to be attained and kept, made and maintained in everyday life, a kind of currency that is no less vital because it is not monetized, and perhaps precisely because it is not considered to be capital. In moments where these women’s words and actions weren’t explicitly oriented to the energy transition or to its projects, their attention to and idioms of vitality illuminate how vernacular notions of energy coincided with and correlated to the projects taking place around them. All were entangled in the mood work of the moment, fashioning

sensibilities and meta-narratives as to which of these sensibilities were salutary and which were not, and how best to have a better life.

But what kinds of participation in the economic life does such mood work capacitate? What kinds of political, economic activity or otherwise acknowledged public participation does it foreclose, and what kinds does it make possible? None of the women with whom I spent time in the village worked in the renewable energy industry or aspired to do so; energy was not something to work with, but rather something one did or didn't have. Aside from Antje's daughter Eva, who scheduled the family's consultation with a solar panel company, the majority of women I spoke to in Dobbe referred to the new structures in their midst in playful and ironic terms. All claimed ignorance as to how they really worked or where the energy they made was transmitted upon collection. The dense meshwork of women's lives was woven in and through the development taking place in the village, it was done so in certain ways, as I learned upon entering the cornfields that sprouted up around the village during my fieldwork year.

As old cattle grazing lands were converted to fields for the cultivation of biofuel crops, paths were cut into the fields to create test sites where agronomists could compare different varieties of corn as they grew. The species that were deemed the most hardy and productive would be selected for wide scale planting in seasons to come. From above, they must have looked like crop circles: round indentions within an otherwise seamless row of crops. One such site lay at the north side of the village, just off the road where the new neighborhood-dwellers walked their dogs. The other lay on the south side of town, a ways into the hamrlich. I had seen the signs indicating the test sites, but

never entered them myself until I was out with a friend who was walking with her children and their dog on the north side of town. Her daughter ran across the earthen bridge that connected the test site to the road and into the field, and the rest of us followed. After about ten yards of dirt path we stumbled into a circular clearing in the field, with rows of corn fanning out on all sides. Each variety of corn seed was assigned a row and a number marked on a small sign.<sup>30</sup> As we stood there, my friend's daughter asked if she could take an ear of corn for herself and one for her brother, and, after her mother consented, gleefully ripped two hairy ears off of a green stalk, cradling them all the way home. We would return to the test site more than once before I returned to the United States that fall. When the biogas processing plant was under construction, I noticed women with their children just outside the site, showing them all that was happening on their afternoon walk.

A few weeks later, as the corn grew taller still, I decided to venture into the test site on the south side of town, half a mile from my house. Knowing as many people in the hamrich as I did, having parked on other people's property with Antje and others without asking permission, and having grown up around rural communities where you could drive on other people's property for any number of reasons, I decided this would be unlikely to offend anyone. And so one day on the way home from visiting friends I drove into the cornfield, following the path marked out by the sign across a dirt bridge that connected the road and the field. The path curved awkwardly to the left, marked by tracks from tires as big as my car, and then suddenly I arrived in a sizeable roundabout

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<sup>30</sup> Later I learned that each number corresponded to a name, and that varieties of corn had action hero names like "Farmflex," "Nitro," "Tiberio," "Indexx," and "Bombastic."

lined with the signs marking the different varieties of corn. I paused by the corn test site, eyeing the numbered signs in front of each row, as suddenly a voice popped into my head: that of an imaginary neighbor, whose binoculars were trained on the place where I had crossed from the road to the field, waiting for me to emerge from the cornrows. *Kiek mal de Kennzeichen an*, “Look at the license plates,” I imagined the voice murmuring in an amalgamation of High and Low German. “What’s that girl doing?” (*Kiek mal de Kennzeichen an. Wat makt dat junge Wicht?*) I suddenly wished I had brought my friend’s daughter along. As an accessory to children on foot, I felt safe to enter; here, alone and purposeful, my curiosity was trespassing and worse, it was fodder for gossip. I reversed across the dirt bridge and onto the road, with a nervous glance toward the neighboring houses and the binocular eyes that may have peered out from within them as I drove away. At that moment, I realized that I was unable to legitimately enter the field like my father would have done in a similar field in Texas, not because I would be sued or arrested, but because I had no *place* in the field as a single woman with no share in the project. Quite literally, I had no business there. Just as Susan Harding was “inhabited by the fundamental Baptist tongue” she was investigating amongst Falwell evangelicals, so too had my own perception been shaped by the communicative practices in which I had taken part in Ostfriesland. I was dwelling in a space of “narrative belief” (Harding 2010). While I did not actively believe that it mattered whether I entered the cornfield or not, I experienced the mattering of it all the same in the prickling of my skin and the sound of the voice in my head, with the heavy East Frisian accent that so many people here used when they were aping *what the neighbors might say*. I had been pulled into the “spirit



world” (Santner 2006) of the women’s talk in which I had participated; in this way, settings that would otherwise been familiar to me were made into strange objects that couldn’t be digested by the subject that I had become (Morton 2011:175).

What struck me later was the fact that I had felt completely safe entering the cornfield with my friend’s daughter, and would have done so again had she accompanied me on my drive into the cornfield. In other words, it was easier for me to enter the site under some circumstances than it was under others; as a woman, those circumstances would have included caregiving for or otherwise accompanying others. In any case, it would be strange for me to enter the cornfield alone simply for the pleasure or spectacle of regarding it, even out of ethnographic curiosity. The various capacities in which I was expected to operate—as ethnographer, and as a woman in the village—were working at cross-purposes to poetic effect.

### *Conclusion*

In this chapter, I have considered the literal and figural female body as a site for the making of imaginaries in Ostfriesland’s current energopolitical moment. As I observed in the village, women fashioned energy and the energy transition as a thing that existed, and that was desirable even as it was removed from their direct engagement. Through idioms of energy, capacitance and well-being that were articulated and rehearsed in moments of connection and the phatic labors of everyday life, they built an archive of experience and expectations as to how the better life might be reached amid the shifting contingencies of projects over which they exercise little authority. Women’s

work made possible certain aspects of the energy transition, and women fashioned understandings of energy that brought the stuff of the transition into alignment with the promises of bourgeois living: rendering energy into a thing to be possessed and the energy transition as a pathway to the better life. Dobbener women sensed out the energy transition as a pathway to the better life, not necessarily because it was the "right" thing to do for the biosphere, but more fundamentally because it was where the money was. Women's everyday expressive infrastructures soldered renewable energy projects to the aspirational and organizational work of making homes and continuing life. In so doing, they made renewable energy a vital and, in many cases, morally desirous aspect of the reproduction of life in Ostfriesland. At the same time, these idioms of energy and the discursive contexts in which they came into being capacitated people in different ways. They entrenched distinctions in terms of gender that are more felt than spoken. These stories are written from a woman's perspective and they foreground women, but they point to the ways in which all who are proximal to renewable energy development--whether through investment or ownership, taxpaying, recycling, living alongside renewable energy technology, or being otherwise recognized as energy citizens--are simultaneously constituted by these development projects at the same time that they constitute those projects.

As I write through these stories, I am uncertain how to put an endpoint on this chapter in a way that simultaneously affirms Dobbener women's energy work while acknowledging the implication of what this work does and doesn't do. In hopes of an easy out, I could chalk up women's lack of direct participation in renewable energy

projects to any number of conceptual catch-alls, like oppression, gender discrimination, false consciousness or alienation. But this would not do justice to the fact that these women were deeply invested in what happens to the projects unfolding around them even as few of them work in these industries or claim knowledge of their workings. It would flatten out the very real ways in which they made the energy transition a vital aspect of everyday life, something that actually existed in the village. Perhaps more relevant than the question of *why* women lived out the transition in the ways that they did is the question of what their living out of this transition implies for theories of energy citizenship. Are women any less energy citizens because they do not attend planning meetings or hold sway over the siting and implementation of development projects? Has the civilizing mission of liberal politics and critique, which once foregrounded the representation of historically oppressed groups like women, shifted focus to other matters, making the question of women's enfranchisement a moot one? Or does the fact that women in Ostfriesland are more or less physically comfortable and at least modestly financially secure render the question of their participation less interesting or pressing, even if their lack of participation stems from tangible divides between male and female responsibilities? As the liberal promise of technoscience is marshaled in the service of "saving the earth," what kinds of social inequalities may persist despite or possibly because of this shift in focus, and does their persistence matter? Does the rush to save the earth in the age of the Anthropocene render gender disparity irrelevant to the wider cause of saving the earth? And, perhaps most confounding of all, is the gender disparity between the men and women of Ostfriesland a problem to be solved and, if not, does this

mean it is no less worthy of our attention, particularly given its generativity and productive force?

## Conclusion

Ten years after I lived in the duplex next to the Adler Nursery, I asked Regina if I might walk through the glasshouses and photograph them for my research. The area had always been a haunted space for me, as I was aware of many terrible things that had happened on the property (three deaths, two of natural causes and one suicide; religious abuse; a drug bust; late night screams; and random and inexplicable car-keyings, among other things). The rest of the property had been fixed up since I lived there—Regina and Volker had renovated and built on to their half of the duplex, and the younger Adlers had covered their side of the duplex in bright Ikea *Deko*, erasing the last traces of Elfriede's presence. But the glasshouses were a total mess, as if the disorder from the old swamps beneath the *Schlick* were seeping upward even as the village around the nursery buzzed with modern optimism. I had been in the glasshouses once before since coming back—to find my old bicycle in the back of the tractor barn—and as soon as I'd found the bike, I wheeled it out of the barn as quickly as I could. But on this day, I sucked up my fear and picked up my camera and set out on a quest through the ruins.

The pictures I snapped that day were washed out but nonetheless stark because the nursery seemed devoid of color, lit only by light from the overcast sky as it filtered through the dirty roof or shone dully like a lightbox through missing panes of glass. Volker's workshop was where most of the activity was; the rest of the glasshouses had been assessed, sorted, and organized since the apprentice had owned them, but they were nonetheless wild for this, with the growing tables still covered in weeds and the snaking

irrigation hoses. I raised my camera to snap a picture of the houses when I was interrupted by a voice—that of Laura, Volker and Regina’s seven-year-old daughter and Angelika’s younger sister, who had followed me out to the nursery. Laura asked what I was doing and I responded that since I had once lived next to the nursery, I wanted to take pictures of the buildings I remembered from my past. Laura took it upon herself to give me a guided tour of the glasshouses, pointing out which of the objects lying around were safe to touch, and which were not. I was more than a little annoyed that she had interrupted my reverie and my photo shoot, posing at various locations around the glasshouses, smiling and waving in the window left behind by a pane of broken glass, and holding up a tiny green gourd still attached to its stem in the small children’s garden that her father and grandfather had helped her dig next to one of the growing tables. Her hot pink coat clashed against the dull tones of the ruins, making me somehow wince even as I remembered my own childhood, when ruins weren’t ruins as much as they were magical spaces of possibility.

As I walked through the glasshouses with Laura close behind, my efforts to curate the space for my own reflection were continually frustrated. In the ruins of the Adlers’ former lives and the stuff of Volker’s present and future tinkering, I had hoped to curate an Anselm Kiefer-style walk through the nursery. Many of Kiefer’s monumental art installations have been framed as a kind of *Vergangenheitsbewältigung*—a means of confronting Germany’s dark past. Kiefer and his assistants mix organic and synthetic materials to evoke a panoply of earth tones, grays mixed from other colors. My impulse in walking through the glasshouses was not unlike the stated sentiment behind *Over Your*

*Cities Grass Will Grow*, a recent documentary which chronicled Kiefer's curation of his studio in Portugal on the eve of his packing up to leave it to be absorbed by the wilderness that surrounded it, purposefully left alone under the watch of a caretaker. I had hoped to find the nursery in a state of reclamation, where the wilderness had taken over in a way that was engulfing, but nonetheless comprehensible to me; a romance of ruins as perfectly imperfect, a curated imperfection that would allow me to feel the underside of the energy transition's promise as a space that ecocapital could not (yet) absorb. But as I walked through the glasshouses, dealing with Laura's constant chatter, I realized that I had fallen victim to the same logic that the women of the breakfast circle had used. I had wanted so much to see the space as a space "apart" from the rest of the village that I had failed to open myself to the fact that this too *was* the village; here too there were children, here too there were shiny plastic things and promises of a better life. I had made of the glasshouses a ruined space when they were actually a dwelt one, inhabited not only by impassive nonhuman things (as much of Kiefer's work suggests to me—salvation via absorption into an impartial wilderness), but by humans and their creaturely collaborations, like Laura and her gourd, or the Adler's cats that lived in the ceiling grates, or Volker and his father and their tool bench. The nursery's colors were not only monochromatic, but shot through with dashes of hot pink or cerulean. The reeling vitalities of this space—these unruly energies—were not as much disconnected from the rest of the village as much as they were connected differently, ruly in other ways. Maike's and my will to make the glasshouses into something else—to make them into an aesthetic object that was this one thing, a ruin—rendered them into an *objet-*

*manqué*, something so overdetermined by the force of its imagining that it could not be held at arm's length and found wanting because it could not possibly live up to the example of the *perfect* ruin, even as it was infinitely multiple, more than a ruin and also more ruined than I could possibly perceive.

Perhaps someday scholars will come to regard the sustainable village as an *objet-manqué*. It “never really happened” at the same time that it “figured centrally in legislators’ attempts to develop their nation in accordance with a vision of progress and identity linked to specific forms of governance” (Maurer 2000:682). If my findings are any indication, the sustainable village never “really” happened, but nonetheless it continues to happen, in Dobbe as in other German villages navigating the path to zero-sum living. In his ethnography of reurbanization in contemporary Kinshasa, Filip de Boeck notes that “in the end, it is as if it almost doesn’t seem to matter whether the new city is physically built or not” (2011:279); the specter of development has already affected the people of Kinshasa, and continues to do so. In Ostfriesland, too, life is continually fashioned in relation to energy development, regardless of what the outcome of that development will be.

There is an inevitable gap between the village as it is imagined and legislated and the village as it is lived. In social scientific studies of the energy transition, this gap may be disregarded by approaches that, for pragmatic reasons, focus primarily on the implementation of projects rather than on the areas where those projects are lived out alongside and through various other lively entanglements. Similarly, this gap may be overlooked in the desire to move beyond representation as it has conventionally been



engaged, tethered to the fantasy that recognition might be possible, if representation and reality would *just* be brought into alignment. It may be overlooked because the repercussions of the gap in places like Dobbe is “less bad” than it is elsewhere in the world, in an academic and political climate understandably if overwhelmingly oriented to risk, disaster, and suffering. Yet while results and emplaced actions are where projects take flesh, representations matter. They are “presentations” (Anderson and Harrison 2010) as are other sensory phenomena, but this is not to say that powerful representations are less powerful for being mere presentations. There are reasons why some forms of engagement with renewable energy are recognizable to us and others are not; as key infrastructure theorist Susan Leigh Star has written, “power is about *whose* metaphor brings worlds together, and holds them there” (1991:52, emphasis original). Social scientists’ ability to recognize some modes of the reproduction of life and not others is informed by many of the same networks of capital and interest that give rise to the situations we study (Lave 2012).

The point of this dissertation has not been to *close* the gap between the ideal renewable energy village and the lived renewable energy village by providing more information about life “on the ground” or, conversely, to debunk representations of the sustainable village as “obfuscating or distorting of the ‘real’ operations of social inequality” (Hartigan 2005:29). Such a move would run the risk of uncritically reproducing the energy-civilization premise that Zachmann (2012) has productively critiqued. Rather than closing it, then, this work has sought to use the gap between representation and experience as an engine of ethnographic discovery. In the text, I have

largely bracketed the categories commonly used to define energy citizens, looking to the practice of everyday life to gain purchase on the ontologies of possibility at one location where the energy transition takes form, and the ways in which people extend themselves into its milieu. In so doing, I hoped to reorient concepts of citizenship to the mundane making of infrastructure rather than simply the use of infrastructure or the maintenance of that which has been appropriated from elsewhere. The object of this ethnography was not the energy transition, but rather the ways in which people in present-day Germany are living out its current political climate, wherein the biosphere and its preservation legitimates the ceaseless optimization and commodification of life for life's sake. Its primary archive was ordinary life, informed by the sense that ordinary life is a resource for action that is politically relevant regardless of whether it registers as "political" or otherwise. The social and technoscientific project of the energy transition was an inciting event, distributed across space and time, that allowed ordinary genres of living to come into focus even as these were "unruly" in comparison to those one might expect to find in a village on the path to zero-sum living.

In the preceding pages, and across various examples, I have considered how the village of Dobbe takes place in the current energopolitical moment, and how its development projects are steeped in social distinctions even as the projects themselves are, in some way, predicated on the belief that the preservation of the biosphere (however the biosphere may be objectified and understood) is the key to the betterment of all. People in Dobbe are living out the energy transition in different ways that recombine prior lifeways now sedimented into the built environment in and around them. In some

cases, like those of the Dobbeners whom I passed many hours, statements that indicate a remove from the workings of renewable energy development also work as infrastructures of that development, rendering it as a thing with promissory potential. Additionally, those who might be seen as “participating” in the energy transition by investing or working on various renewable energy projects do so for any number of reasons that do not necessarily include an interest in the welfare of the earth, or a sense of biovalue such as that which is commonly billed as a motivating factor behind environmental citizenship. Through the energy transition, old sites are made new through technoscientific development, as in the example of the Dobbenerhammrich, fashioned anew as Hammrich Incorporated. New (or relatively new) spaces like the municipality of Wälder offer a means of “local” development that is simultaneously “anti-local” (Tsing 2005) in the sense that it facilitates the rapid transformation of preexisting landscapes taken to be the essence of the locality (i.e., through wind turbine installation), and also in the sense that its decision-making apparatus is separate from the infrastructures through which Dobbeners are social even as it occupies the same space and contributes to the village’s continual re-formation.

There are numerous ways in which this project could be extended and expanded through future research. The data presented here offer numerous provocations for the study of energy more specifically, and rural Europe and environmental politics more broadly. The stories and histories I offer here snap and hang off of Dobbe’s grid like the fallen hoses of the Adler Nursery, pointing to unseen, forgotten or unvalued uses that nonetheless exert infrastructural force in the reproduction of life. They point toward

alternate understandings of being at work and of being environmental, compelling a closer attention to how the multiplicity of places and things intersects with dominant models of and models for the worthy, good and better life. The writing of this text reflects the challenge of encompassing these alternate understandings in a common frame, zooming from microscopic focus to big-picture discussions. But it too is an experiment in thinking of the quantum reality of taking place, and its unfolding in an explicitly energopolitical context.

Using the present work and its insights as a conceptual foundation, I am most interested in the prospect of a study of the relationship between animacy and value in the context of the energy transition, perhaps focused more specifically on a particular project such as the biogas processing plant that was completed after my last field stay. In this work, the concept of unruly energies has primarily served as a catchment for various forms of life and livelihood that do not square with the commodity forms privileged by the logic of the energy transition. Unruly energies are extraneous to the main event of the energy transition because they cannot be measured, monetized or ordered into conventional genres of public participation—at least, not yet—but they destabilize the assumption that ambivalence is tantamount to absence. They foreground copresence as a space of contribution, if not willful participation. In a sense, they are similar to William Connolly’s notion of fugitive energies, which “exceed the organization of identity\difference relations” (1999:xx) in a given frame. At the same time, these unruly energies can, as in the case of Volker’s glasshouses or Regina’s daily routines, provide the ground for other orders of relations.

I could say that unruly energies are byproducts of the renewable energy transition, like steam released from the engine of progress, off-gassing from modernity. Not quite waste—not yet *Abfall*—still open to valuation and exchange, and moreover actualization in the interests of the market. But these unruly energies are also more than byproducts, in the sense that much like electricity, heat, or money, they too can and do exert material force, if not a force easily measured in watts, joules or euros. They too can set lives ablaze or snuff out livelihoods. They may likewise “hint at the tragic necessity by which the poor man clings to his hovel doomed by the rich man’s desire for a public improvement which benefits him privately” (Polanyi 2001:37). But more often than not, they provide context for this necessity in tones that register as minor keys, with implications that aren’t as overtly tragic as they are complicated and compelling. To adapt a line from Ana Tsing (2012:152) to the terrain of the Frisian coastal plain: outside the house, between the swamps and the fields, bounty is not yet exhausted.

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## **Vita**

Jennifer D. Carlson was born in Victoria, Texas, where she graduated from Victoria High School. She received a Bachelor of Arts in International Studies from Southwestern University in Georgetown, Texas, in 2002. From 2002 to 2003 she studied at the Westfälische Wilhelms-Universität Münster, Germany, as a Fulbright scholar. She received her Master of Arts in the Social Sciences from the University of Chicago in 2005. In 2006, she entered the Graduate School at the University of Texas at Austin.

Permanent email address: [jdcarlson@utexas.edu](mailto:jdcarlson@utexas.edu).

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