

Ethnographic Terminalia Presents

Aeolian Politics

Denver, CO
Nov. 17-22, 2015



Mural, La Ventosa, Oaxaca, Mexico.

Ethnographic Terminalia presents Aeolian Politics

Curatorial introduction.

In the midst of this boom of writing and thinking and worrying about the end of the world brought on by anthropogenic climate catastrophes, Ethnographic Terminalia presents Aeolian Politics. It is indeed the end of time for glaciers that have withstood thousands of years, cycling through periods of freeze and thaw. It is the end of time for entire species extinguished at such an alarming rate that even the most hardened observer of the 'news' must be a little shaken and perturbed.

It is in this moment that we have enthusiastically collaborated with Cymene Howe and Dominic Boyer to translate their work, Aeolian Politics, into an exhibition. We all inhabit the weather world, regardless of the little shelters built to insulate us from the elements. The banal familiarity of the seasons as they wash over us no longer require studied effort to estrange them. Strange weather is here. The force of this world—which we re-engineered through centuries of mining, fossil-fuel burning, over-fishing, agro-industrial growth, and so on—imposes itself upon our everyday so that we must make a constant effort to make the strange familiar and pretend that everything will be okay. At times the veneer of a stable and predictable life seems terribly thin.

We welcome you to explore the Windhouse, a gallery within a gallery, caught up in an airy torrent of wind politics where the materiality of Zapotec words invoke the weird familiarity of wind in the weather world.

Ethnographic Terminalia Curatorial Collective.

Craig Campbell, Kate Hennessy, Fiona P. McDonald, Trudi Lynn Smith, Stephanie Takaragawa

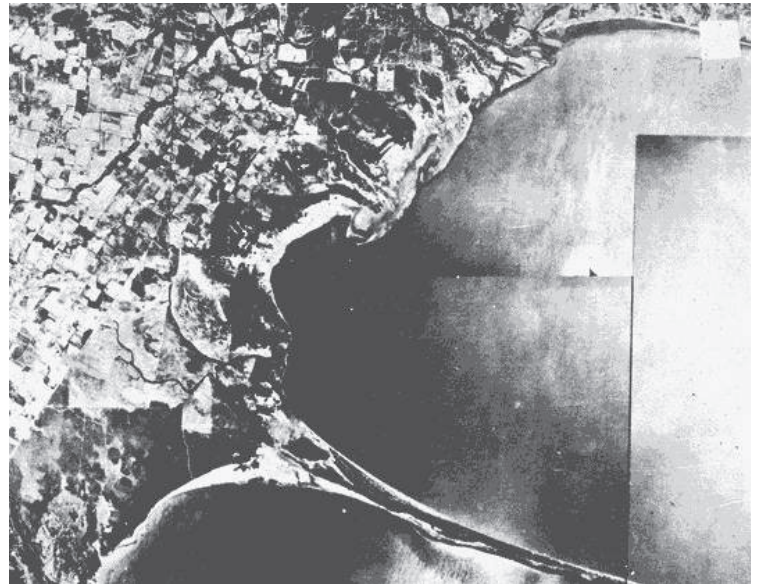
Denver, CO. November 17-22, 2015
Emmanuel Gallery



Artists' Statement

In some places, the dust never seems to settle. Throughout Mexico's Isthmus of Tehuantepec wind finds its way everywhere, lifting particulate matter, raising small stones from the road, harassing the matted fur of a dog, insinuating itself against the lopping blades of turbines to make electricity. The wind in the Isthmus, as everywhere, is a negotiation between gases that are compelled across space and time by combinations of heat and cold differentials, floating over land and sea, pressured shifts in directionality and potency. This is the physicality of the wind, its material life. Wind becomes contoured by objects in its path—mountains and hills, cliffs and stands of forest, buildings and creatures. It also willfully exercises its force upon these things, carving, cracking and pressuring—leaving its ventifactual imprints. It is a relief from the heat, a force to struggle against or a welcome bluster that blows smoke from our eyes. But the power of the wind is not singular. It is as multiple as the world it inhabits, both absorbing and forming its conditions.

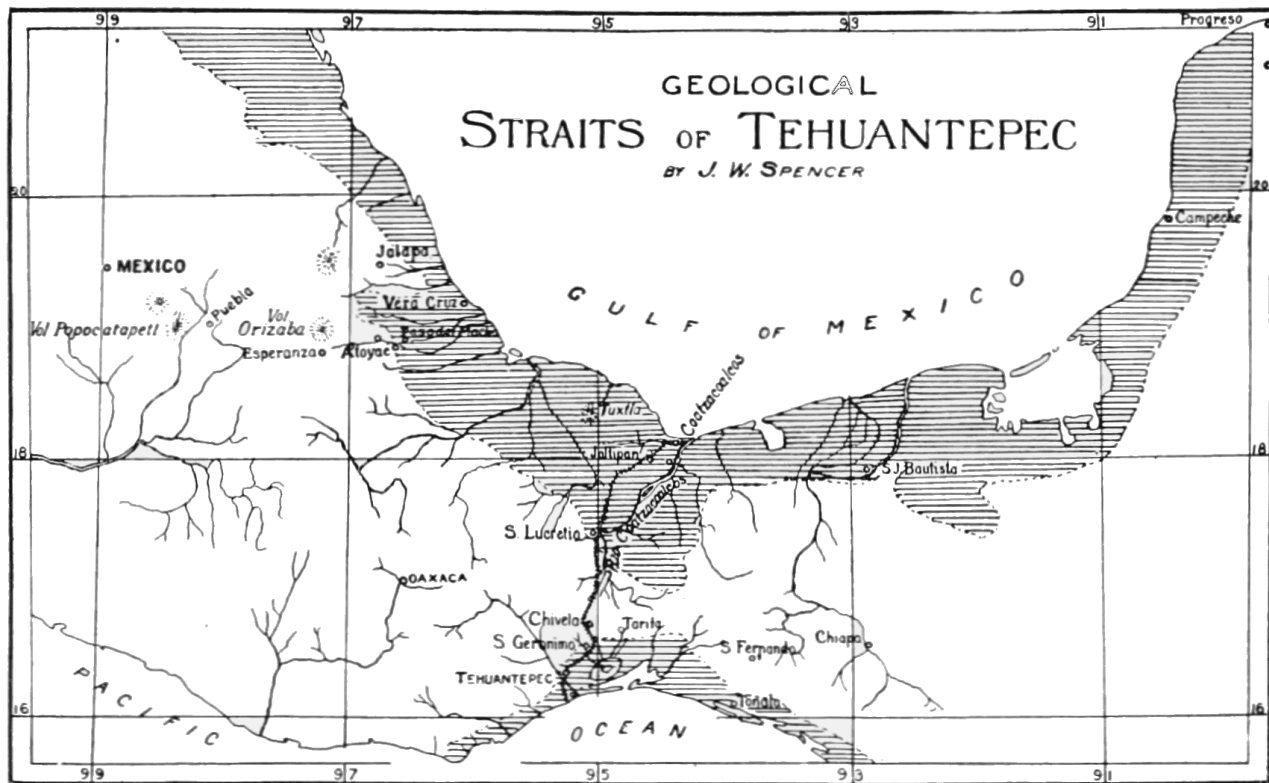
Over the past decade México has become known as a country beset with drug war and neoliberal policies, a weak state gradually ceding its sovereignty to cartels and capital, a state from which its citizens seek to escape. What is less well known is that during the same period the Mexican government pushed to transform itself from pure petrostate to a global leader in clean energy development. Under the leadership of President Felipe Calderón (2006-2012), México passed some of the most aggressive clean energy legislation anywhere in the world including legally mandating that 35% of electricity be produced from non-fossil fuel sources by 2024, with 50% of that green electricity expected to come from wind power. For the ancient Greeks, Aeolis was the God of Wind; across the isthmus it is *energía eólica*—wind energy—that has come to occupy lands and sky.



Sattelite view of barra de Santa Teresa

We interviewed President Calderón about his renewable energy aspirations for the country in the spring of 2014 and he explained that he felt compelled to act because of México's vulnerability to the effects of climate change, particularly the devastating impacts of droughts and flooding across the country. But he also admitted that México was being pushed toward renewable energy transition by its disappearing petroleum production, down 25% since the middle of the 2000s. Calderón confirmed that petroleum sales account for no less than 43% of México's federal budget, meaning that every other project of the Mexican state is intimately contingent on the revenue from oil. In a strange way, renewable energy at home also served a petropolitical purpose: freeing more oil to sell abroad.

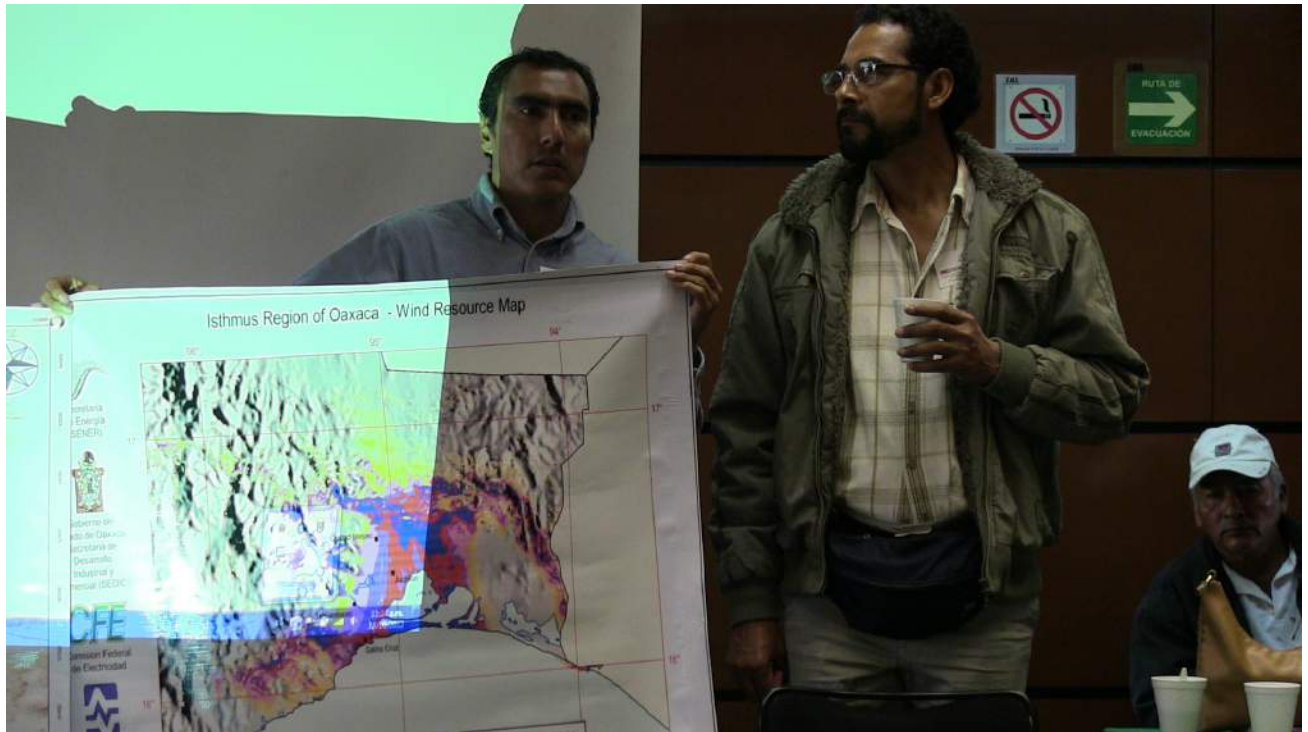
The Isthmus of Tehuantepec, a 200 km strip of land between the Gulf of Mexico and the Pacific Ocean, has long been envied for its strategic potential in fostering interocean trade and for its natural resources. Hernán Cortés asked that his Marquisate be granted large holdings in the Isthmus where he built the largest port in the Spanish colonies. In the mid 19th century the Isthmus was very nearly ceded to the United States of America to create an interoceanic railroad and canal. The Isthmus also sheltered the last autonomous Zapotec Kingdom that for centuries had resisted, with considerable fierceness and success, the political and cultural hegemony of first the Aztecs, then the Spanish and eventually the Mexicans.



Map depicting the Isthmus of Tehuantepec

Indifferent to the politics and lives of human communities, wind pushes through the Isthmus, a natural wind tunnel owing to the barometric pressure differential between the Gulf of Mexico and the Pacific Ocean. The windiest part of the Isthmus lies south of the Chivela Pass, a 60km wide gap in the Sierra Madres where air from the Bay of Campeche in the north flows unimpeded to the Gulf of Tehuantepec in the south. In the winter months, the north wind there routinely blows up to 25 meters/second (55 mph) with exceptional events reaching Tropical Storm or even Hurricane force. A study by the National Renewable Energy Laboratory in 2003 confirmed that the Isthmus offers the second best terrestrial resources for wind power development of any place in the world. In the mid 2000s development of those resources intensified in accordance with Calderón's clean energy plan. In 2008 there were two parks in the core wind zone producing 84.9 megawatts of wind-generated electricity; four years later there were 15 parks producing over 1300 megawatts, a 1467% increase that has made México the second largest wind power producer in Latin America after Brazil.

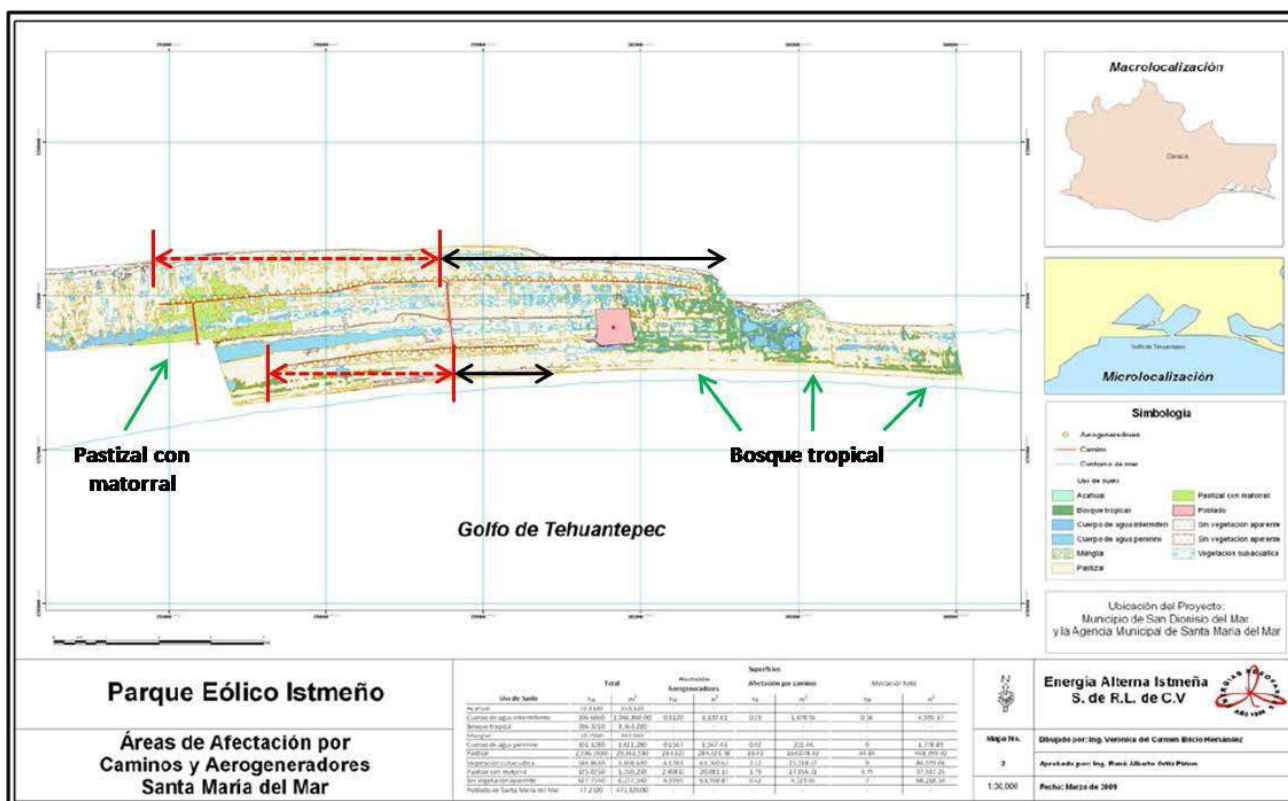
The Istmeño wind boom was the subject of our sixteen months of ethnographic field research in 2009, 2011 and 2012-2013. We found that the proliferation of wind parks has been contentious at every stage of their installation. Those supporting wind power speak of global climatological good and local economic development. They dream of a “city of knowledge” rising from the ranchland creating a zone of upward mobility where turbine engineering and expertise would flourish in the heart of one of the poorest regions of one of the poorest states in México. Those opposed to wind parks meanwhile see economic imperialism by foreign capitalists coming, once again, to colonize the region through extractive methods that threaten local ecosystems and food sustainability while returning little in the way of general social benefits. Local landowners who receive usufruct rents, caciques (local bosses), and politicians are suspected for taking and issuing bribes to coerce support for wind power projects. Further complicating matters, much of the choicest land for wind development has been held in a centuries-long communal property regime; who is authorized to speak for the comuna has thus become a burning concern that has divided neighbors and families even to the point of violence. Questions about indigenous peoples’ sovereignty and the rights of landless peasants are also constantly in the air.



Mariano López and Rodrigo Peñalosa speaking to reporters about land dispossession.

In local binnizá (Zapotec) and ikojts (Huave) cosmologies, the northern wind has long been considered a sacred power, part of a world-generating life force but also at times dark and destructive, “the devil’s wind.” In the past decade, that northern wind has increasingly become intertwined with land politics, resource politics and the wider biopolitics of life in the Anthropocene. We came to feel that the concept of “wind power,” as it was emerging in Anglo-European neoliberal discourses of modernity, was concealing more than it was revealing of the turbulent forces of wind and power operating in the Isthmus. We started

to talk about “aeolian politics” instead in order to deconsolidate the sign of “wind power” and to displace it from familiar technical, moral and economic paradigms of energy decarbonization.



Detailed plans for wind park construction on the barra de Santa Teresa.

To be clear, we are both deeply concerned about climate change and other phenomena of the Anthropocene. We both strongly support renewable, sustainable energy forms. However we have come to question the assumption that wind power, in all its forms and contexts, provides salvation. Modes of wind power that repeat the extractive practices and resource imperialism of the carbon age, we believe, will not be able to tip the scales and intensities of modernization that have led us to the Anthropocene in the first place. Wind power's redemptive powers are often turned toward cleansing the wounds of modernization and its power grids, paying little attention to how it displaces and irritates living beings ranging from some binnizá and ikojts residents of the Isthmus to the mangroves and fish of the Laguna Superior. The lens of aeolian politics reveals that “wind power” turns out to be everywhere a different ensemble of force, matter and desire. This power has no summary form; it is a matter of pressures, flows and frictions, air moving around and through efforts by corporate executives, politicians, engineers, landowners, activists, neighbors and anthropologists to exert their varying degrees of epistemic and moral authority upon it.

Why create this installation? We have already engaged aeolian politics in essay form (Howe and Boyer 2015), with more to come in the form of a “duograph,” a parallel-authored, two volume text developed from a shared ethnographic archive (forthcoming Cornell University Press 2016). In this work we discuss four ventifactual “matters of concern” that emerged during our research: “Viento, bi, wind;” “Tierra, terreno, land;” “La red, la luz, grid” and

"Verde, green." But we felt that there is something lost when one only reads about the complex wind of the Isthmus without feeling that wind and understanding how its intensity is an essential part of aeolian politics. That wind has been known to strip paint off of boats and to flip tractor-trailers; this is no ordinary wind. And thus, this is not just another story about land and resource politics, it is about a lively wind that carries the earth within itself, whose howl and moan drowns out human voices. This wind irritates, assails, invades, it makes fierce temperaments and "strong backs" as we often heard from our interlocutors in the Isthmus.

The rationale for this installation is to restore the wind to aeolian politics, making a visitor see, feel and hear not just anthropolitics but ventipolitics as well. To understand the one, one must also understand the other. The situation of wind power development in the Isthmus of Tehuantepec demands appreciation of seemingly incommensurable ecologies and the relentless pressure of air. As you have moved through this installation you have felt the soft breeze of redemption, the southern, gentle and "feminine" wind of the south, binnizá. And then you have been assailed by "el norte" the devil's wind, finding your footing where you can. And you have heard, through all of this, the poetry of the wind's power as read by the great binnizá poet Victor Terán. At each turn and bluster you have encountered moving images: the first swelling with the redemptive potential of energía eólica, the second, in the streets, challenging the ways that wind power has occupied the Istmo and finally, Terán, narrating the arts and pains of the wind, the sounds of Juchitán surrounding him, the wind in pause.

For us, if there is a message in this work it is to say that some constellations of aeolian politics may be capable of blowing us back toward the Holocene; others, however, will not.

~Cymene Howe and Dominic Boyer

Cymene Howe is Associate Professor of Anthropology at Rice University and a core faculty member in the Center for Energy and Environmental Research in the Human Sciences. She is the author of *Intimate Activism: The Struggle for Sexual Rights in Postrevolutionary Nicaragua* (Duke 2013), co-editor of *21st Century Sexualities* (Routledge 2009) and has published numerous articles and book chapters in anthropology and transdisciplinary texts. In a multi-year collaborative research project with Dominic Boyer in Southern Mexico she has followed the political and social contingencies of renewable energy development, paying special attention to the material, multi-species and political/ecological effects of wind power as well as the ethical questions its turbulence inspires. *Ecologics: Wind and Power in the Anthropocene* (forthcoming Cornell 2016) will be published as a duograph—a parallel-authored, dialogic text, printed to read in two directions. Her work on renewable energy transitions in Mexico analyzed the role of “mitigation” strategies in forestalling further anthropogenic harms to the earth’s aqua-, litho-, bio- and atmospheres; her current research concerns “adaptations” to climate change. *Melt: The Social Life of Ice at the Top of the World*, her next project, seeks to understand cryohuman interrelations and the implications of the metamorphosis of ice in Iceland. In this work and others, she is committed to thinking through how ecological authority is constituted as well as how anthropogenic climate change calls for new ways of imagining our collective biotic and material futures. She currently serves as a member of the editorial collective of *Cultural Anthropology* and as co-editor of the *Johns Hopkins Guide to Social Theory*.

Dominic Boyer is Professor of Anthropology at Rice University and Founding Director of the Center for Energy and Environmental Research in the Human Sciences (CENHS, culturesofenergy.org), the first research center in the world designed specifically to promote research on the energy/environment nexus in the arts, humanities and social sciences. He is part of the editorial collective of the journal *Cultural Anthropology* (2015-2018) and also edits *Expertise: Cultures and Technologies of Knowledge*, a book series for Cornell University Press. His research interests include media, knowledge, energy and power. His most recent monograph is *The Life Informatic: Newsmaking in the Digital Era* (Cornell University Press, 2013). With James Faubion and George Marcus, he has recently edited, *Theory can be more than it used to be* (Cornell University Press 2015) and with Imre Szeman is preparing *Energy Humanities: A Reader* for Johns Hopkins University Press. His next book project is a collaborative multimedia duograph with Cymene Howe, which explores the energopolitical complexities of wind power development in Southern Mexico. With Timothy Morton, he is currently developing a project for the Open Humanities Press, tentatively titled, *Hyposubjects: Politics of the Ecological Emergency* (Human Language Edition). He is also developing an energy humanities podcast through CENHS to further diversify the vectors of scholarly and artistic work in this emergent field.







Aeolian Politics poetry workshop: exploring how poetry speaks with anthropology.

This workshop is organized in conjunction with the exhibition "Ethnographic Terminalia presents Aeolian Politics" which features the work of Binnizá (Zapotec) poet, Victor Terán.

"Aeolian Politics poetry workshop" offers the opportunity to explore relationships between poetry and anthropology with a specific focus on the various creative and critical challenges poetry poses to anthropological thought and writing.

The workshop is open to anyone (anthropologists, poets, students) and free, though spaces are limited. Participants must come with a short prepared statement (that can include poems or conventional writing) no longer than 300 words. The emphasis in this workshop is sharing composed ideas and thoughts; we request that people do not speak 'off-the-cuff' but come with a prepared bit of writing. After reading these short pieces we will open a discussion on themes raised in the writing. It is, as such, a very open format designed primarily to give anthropologists interested in poetry (both as an object of study and as a method of communication) an opportunity to meet with others in an informal setting. The workshop will be run in Spanish and English with some limited translation.

Binnizá (Zapotec) poet, Victor Terán, will be in attendance via video connection.

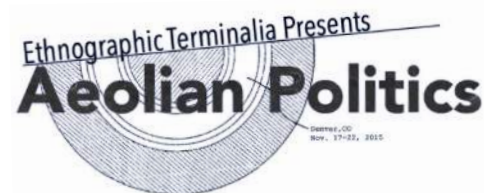
The workshop will be led by Anthony Webster (UT Austin) with support from members of the Ethnographic Terminalia Collective. Also present will be Cymene Howe (Rice University) and Baird Campbell (Rice University).

Note that there are very limited spaces available for this workshop. Please send an email to ethnographicterminalia@gmail.com with the subject heading "poetry workshop" to inquire if there is space.

Workshop 2-5pm
Saturday, November 21, 2015

Emmanuel Gallery
1205 10th Street
Denver, CO 80204

www.ethnographicterminalia.org



Acknowledgements

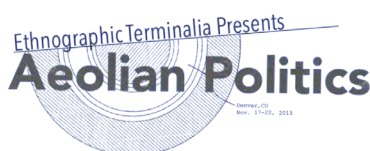
From Artists Cymene Howe and Dominic Boyer:

In addition to the Ethnographic Terminalia collective and all those who have worked to bring this project to life in the Emmanuel Gallery, we would like to thank the National Science Foundation (Grant #1127246), the Social Sciences Research Institute at Rice University, the American Anthropological Association, CENHS (Center for Energy and Environmental Research in the Human Sciences) and Rice University's Department of Anthropology for their support. Several people deserve special recognition for the effort and commitments they have shown to this project and we wish to thank them here: Briceidee Torres Cantú, Raul Mena Gallegos, Paul and Carol Liffman, Paty Lemus, Sergio Oceransky, Rachael Peterson, Daniel Rodríguez, Vicente Vásquez and Julia Guadalupe Torres Ventura. Our deepest appreciation goes to Victor Terán for his talent and his wisdom. Finally, none of this work would have been possible if it were not for the hundreds of people who shared their stories with us, from Felipe Calderón to the campesin@s, pescadores and comunidades of the Isthmus of Tehuantepec who took the time to help us better understand the aeolian politics of the region.

From the Ethnographic Terminalia Collective:

We would like to thank the following institutions and individuals for their support of this exhibition and events: American Anthropological Association, Society for Visual Anthropology, National Science Foundation, University of Texas at Austin, Center for Energy and Environmental Research in the Human Sciences (CENHS), Rice University, Rice Social Sciences Research Institute, Rice University, Department of Anthropology, Chapman University, Simon Fraser University School of Interactive Arts and Technology; Cymene Howe, Dominic Boyer, Jacquelyn Connelly (former Director of Emmanuel Gallery), Lindsey Housel (Interim Director of Emmanuel Gallery), Victor Terán, Christina Kreps, Ann Stahl, Aaron Glass, Ed Liebow, Ushma Suvarnakar, Jeff Martin, Mary Gray, Oona Schmidt, Rachel Topham, Staff at Emmanuel Gallery, Baird Campbell, Briceidee Torres Cantú, Raul Mena Gallegos, Paul and Carol Liffman, Paty Lemus, Sergio Oceransky, Rachael Peterson, Daniel Rodríguez, Vicente Vásquez, Julia Guadalupe Torres Ventura, Paper Airplane Design Co. LLC (Denver), Noah Manos, Spencer Alred, Graham Eschen

~ Craig Campbell, Kate Hennessey, Fiona P. McDonald, Trudi Lynn Smith, Stephanie Takaragawa









This small 10 kW wind turbine has performed well operating in the harsh seaside environment on the Caribbean coast of southern Mexico. The turbine is equipped with an anti-corrosion package that helps it withstand constant exposure to salt from ocean spray.

Charles Newman, NREL, PIX09405

Advancing Clean Energy Use in Mexico

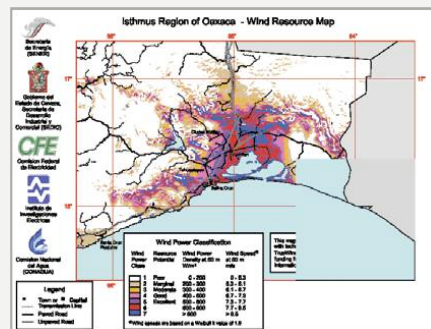
Optimizing energy resources, growing markets, sharing knowledge

NREL's work in Mexico over the past ten years has focused on clean energy technology activities that support the government of Mexico's development goals. With support from the US Department of Energy (DOE) and the US Agency for International Development (USAID), NREL has built strong public and private partnerships to carry out a variety of activities including technology transfer, capacity building, resource assessment, renewable energy and energy efficiency project identification and development, and hybrid system installations. NREL also provides technical assistance to the US Environmental Protection Agency's (EPA) Integrated Environmental Strategies Program to improve air quality and reduce greenhouse gas emissions in Mexico City.

Current Activities

Wind resource assessment and large-scale wind development

In 2002, NREL completed a high-resolution wind resource map for the State of Oaxaca as well as US/Mexico border region maps. The wind resource maps, which are derived from a variety of weather data, combined with information such as wind flow



Wind resource for Isthmus Region of Oaxaca

characteristics under different terrain conditions, were placed in a Geographic Information Systems (GIS) framework for easy data analysis.

NREL's resource mapping revealed 33,000 MW of wind potential in the Isthmus region alone in Oaxaca, with over 6,000 MW of usable wind resource. The wind atlas has been described as a very useful tool by the Government of the State of Oaxaca, which has established a goal of installing 2,000 MW of renewable energy by 2015.

Success Story

Geospatial Toolkit for Oaxaca

With funding from the U.S. Department of Energy (DOE), NREL recently developed a Geospatial Toolkit (GsT) for the State of Oaxaca. The Oaxaca GsT is the next step following the development of wind and solar maps. The GsT builds on resource data, worldwide GIS datasets, and country-specific data. It is designed for the energy planner, decision maker, or project developer to allow them to understand the renewable energy resource base and the potential for a country or region and their relationship to other geographic features such as towns, roads, cities, and protected areas. With this tool, the decision maker can perform simple analyses and queries, such as "Where are the best wind resources within 10 km of a transmission line?" NREL developed the GsT as an easy to use, stand-alone geographic toolkit that requires no special software or training.

The Oaxaca GsT is an example of extensive inter-agency collaboration, as the Oaxaca GsT was developed with funding from DOE, using lessons learned under the United Nations Environment Programme's (UNEP's) Solar and Wind Energy Resource Assessment (SWERA) program, funded by the Global Environment Facility, and is based on data collected for development of wind and solar maps of Oaxaca, funded by USAID. The toolkit will likely be used for Mexico's Secretary of Energy's Rural Electrification Program to identify feasible project sites. To download the GsT, please visit: www.nrel.gov/international/geospatial_toolkits.html. For more information on SWERA, please visit: <http://swera.unep.net/swera/index.php>.



Advancing Clean Energy Use in Mexico

Solar resource assessments

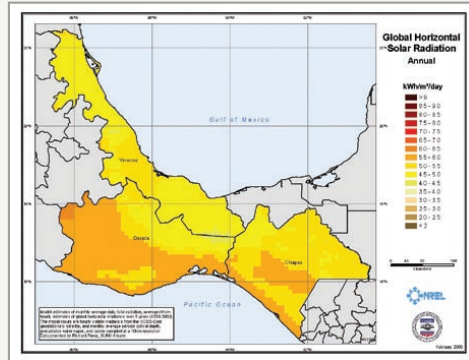
Local agencies expressed interest in complementing the Oaxaca wind atlas with a solar resource assessment of Southern Mexico. With funding from USAID, NREL developed high-resolution satellite-derived solar resource data and maps for the states of Chiapas, Veracruz, and Oaxaca. The database includes time and spatial information, with hourly time series data at selected grid cells, which allows for detailed and defined site and technology assessments that can be used to provide recommendations for technology options given the solar resource for the region. All of the solar and wind maps for Mexico can be found at: www.nrel.gov/international/rr_assessment.html

ESCO market development

NREL has worked with Mexico's National Commission for Energy Savings (CONAE) to promote Energy Services Company (ESCO) projects in the hotel and the industrial sectors since 1999. ESCOs carry out performance contracts to implement financed energy efficiency and renewable energy projects in a facility on a guaranteed savings basis. This innovative financing alternative can help advance the clean energy project market in Mexico. There is considerable market potential for ESCO projects, although there are also barriers to implementation. To help overcome these barriers, the NREL-CONAE team has helped facilitate various projects through business matchmaking (linking facility managers to potential ESCOs, project developers, financing sources, technology companies, NGOs and others), and by developing efficient financial vehicles that allow ESCOs, energy end-users and project developers to access financing, and to reduce transaction costs. The NREL-CONAE team continues to look for new partnerships with public and private sector organizations that can add value to this initiative. For more information visit the ESCO section at CONAE's website. www.conae.gob.mx/wb/distribuidor.jsp?seccion=27

Rural energy planning & technology options analysis training

NREL is working with Mexico's Secretary of Energy (SENER) to support implementation of Mexico's Rural Electrification Program by providing regional training courses on decision analysis tools including HOMER, NREL's micropower optimization model (www.nrel.gov/homer).



Annual global horizontal solar radiation: Veracruz, Oaxaca, Chiapas

This training helps with regional planning and identification and siting of renewable energy projects. With USAID and others, NREL is developing a productive uses User Manual that will also contribute to SENER's Rural Electrification Program.

Hybrid power system monitoring & replication

NREL has monitored and provided technical support to six hybrid power systems in the Yucatan and Baja California provinces for several years. NREL will follow through with activities to promote greater understanding of the market and replication of projects, including a social and technical analysis of the San Juanico power system, and a market evaluation of the resort industry in the Yucatan.

Spanish-language guidebooks

NREL has developed Spanish-language guidebooks and other training materials on the productive use of renewable energy technologies for schools, rural health clinics, and micro enterprises as well as on renewable energy technologies and applications.

For more information, please contact:

Jeannie Renné
NREL
USA
Tel: 303-384-7469
Fax: 303-384-7419
Email: jeannie_renne@nrel.gov

Monica Perez Ortiz
CONAE / NREL Subcontractor
México
Tel: 525-5-3000-1000 x1138
Fax: 525-5-3000-1047
Email: tcapp@conae.gob.mx

National Renewable Energy Laboratory
1617 Cole Boulevard
Golden, Colorado 80401-3393
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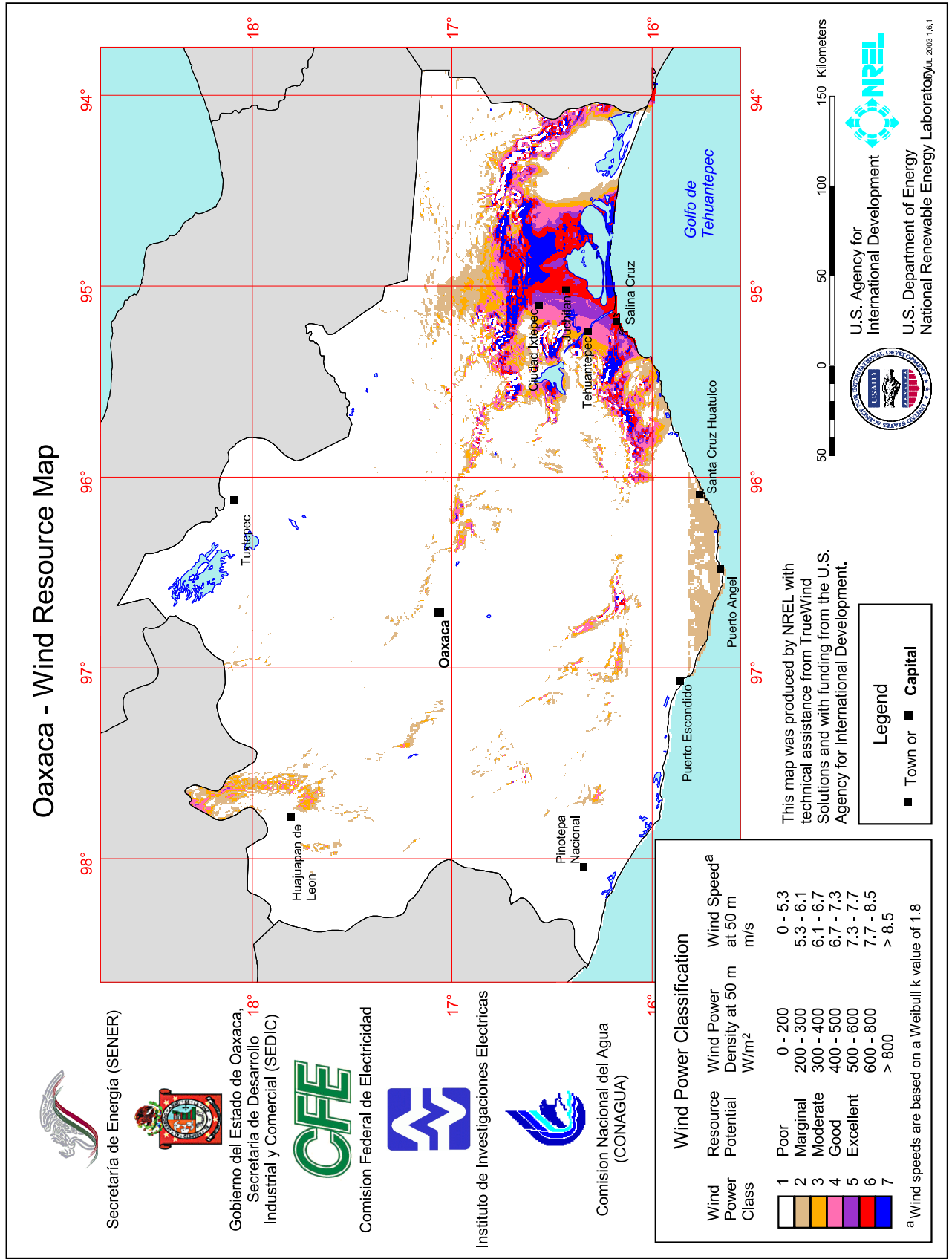


Figure 6-1

PROJECT SUMMARY

The transition from carbon fuels to cleaner energy forms is widely regarded as one of the most pressing environmental and social challenges facing humanity in the 21st century. Although a key focus of international political and scientific collaboration, it remains unclear how energy transition goals can be achieved, especially given the proliferation of neoliberal economic and social policies across the world in the past three decades, policies that often question the legitimacy and effectiveness of state-led programs of development.

The project's central research question is whether neoliberal states, especially those already struggling to meet their current governmental obligations, possess the political authority to implement important programs of national development such as renewable energy. The project's case study is wind power development in Southern Mexico. Mexico is a country that has been deeply impacted by economic globalization and neoliberal policy since the early 1980s and more recently by significant declines in oil production. In response, the Mexican government has outlined an ambitious plan to develop its renewable energy resources over the next 15 years. Wind power is a centerpiece of this plan owing to the world-class wind resources of the state of Oaxaca. By 2013, the government hopes to develop up to 4 Gigawatts of installed wind power (enough electricity to power 4.8 million homes), through partnerships with transnational renewable energy companies.

Utilizing a multimethodological approach, the PIs plan to complete a major anthropological research study in 2012 and 2013, including 16 months of field research in Mexico, which will focus on the evolving political culture of wind power development in Oaxaca. The project's five research hypotheses focus on the interactions between four major stakeholders in wind power development – state and federal government officials, Isthmus communities (including landowners, residents, and activists), transnational renewable energy corporations, and media organizations – identified in the course of the PIs' preliminary research in Mexico in 2009 and 2011. The primary objectives of the study are (1) to map the interactions and communication between these stakeholders, (2) to identify instances of contention and cooperation, as well as practices of brokerage, among the four groups and (3) to identify assertions and relations of political authority in order to determine which groups' interests are ultimately driving the process and outcomes of wind power development in Southern Mexico. The study will generate uniquely rich ethnographic data on neoliberal statecraft and development in Mexico that will contribute to the production of articles, a book-length study, and a documentary film. In previous research projects, the PIs have each done extensive research and have published widely on political culture, specifically on media, politics and public culture (Boyer) and on social movements, transnational activist networks and rights discourses (Howe). Both PIs speak fluent Spanish.

Intellectual Merits. This project will represent one of the most extensive field-research based studies of renewable energy development in any field of social science. It will also represent the first research project in cultural anthropology to connect emergent research in the anthropology of energy to recent theoretical work in the anthropology of development and political anthropology. Finally, by analyzing the interactions of all the major stakeholders involved in wind power development in Southern Mexico, the study will advance social-scientific understanding of how the political culture of development operates in the era of neoliberal policy and will offer an especially fine-grained analysis of statecraft and political culture in neoliberal Mexico.

Broader Impacts. The project will closely analyze the challenges that neoliberal states face in brokering and implementing transitions toward cleaner energy forms, an urgent global policy issue. A key project outcome will be the production of a documentary film, which will be designed for both classroom use and broader public presentation and which will be submitted to international documentary film festivals. The project is also centrally positioned in a new Provost-led initiative at Rice University to intensify research on "Energy and the Environment" and the PIs and Rice administrators will work within the framework of the project to develop stronger ties between American academics and Latin American academic, political and scientific leaders. The PIs both have substantial experience communicating their research findings to an interdisciplinary academic audience and to members of the policy community.

Public outcomes report: NSF #1127246

Scientists regard the reduction of greenhouse gas (GHG) emissions as among the most urgent challenges facing humanity in the 21st century. Without rapid action to reduce emissions, scientists predict that the world will face significant climatological, geological and biological impacts in the coming decades including water shortages and unpredictable severe weather, which in turn will stress ecological systems and potentially challenge social stability.

Transition from fossil fuels to renewable energy forms has been identified as one of the most effective strategies humanity could pursue to rapidly reduce carbon emissions. Fossil fuel production alone produces 26% of GHG emissions according the U.S. Environmental Protection Agency and the use of fossil fuels in industry and transportation accounts for another 32% of emissions.

However, as of the time of this report, international efforts to design and implement energy transition scenarios (e.g, the Kyoto Protocol) have largely failed. Thus more and more pressure falls on individual countries to create their own paths to GHG reduction through energy transition. Results have been very mixed. Governments across the world face resistance from segments of society invested in carbon energy production, from economic concerns about energy costs, and even from skepticism regarding basic climate science.

Challenges are often especially severe in the developing world where governments face additional challenges such as maintaining rule of law, providing citizens with basic human services, and finding sources of employment and growth. Current “neoliberal” policy orientations, which question the legitimacy and effectiveness of government-led programs of development, create additional challenges for developing nations seeking to contribute to the global reduction of GHG emissions and implement sustainable forms of energy generation.

Against the backdrop of today’s climate and energy related challenges, NSF #1127246 sought to understand how vulnerable, developing nations are trying to implement important programs of energy transition. Project researchers Cymene Howe and Dominic Boyer sought to pinpoint successes and failures in currently existing programs and to deliver recommendations on how energy transition and renewable energy development programs could be improved and accelerated in the future.

Mexico was selected as an excellent case study for three reasons: (1) it is a nation that is currently heavily dependent on both fossil fuel production and consumption, (2) it has nevertheless set some of the most ambitious targets for clean electricity generation anywhere in the world (35% by 2024), and (3) it is currently seeking to develop its world-class wind resources in the Isthmus of Tehuantepec region of Oaxaca that could provide as much as 10 Gigawatts of non-fossil electricity, enough to power 12 million homes.

Following upon preliminary research in 2009 and 2011, the principal investigators conducted 16 months of field research in Mexico in 2012 and 2013 focusing on wind power development in Oaxaca. They interviewed and participated in events involving all stakeholders in Oaxacan wind power including federal, regional and local political figures, project developers, international investors, Isthmus community members, and media professionals. The wind sector in the Isthmus has developed very quickly, expanding from two wind parks producing 84.9 Megawatts in 2008 to fifteen parks producing 1.331 Gigawatts by the end of 2012 (a 1,467% increase that has made Mexico the second biggest wind power producer in Latin America after Brazil). However, development has fallen short of government hopes in part because of rising resistance within Isthmus communities to wind power projects. In 2013 what would have been the largest single-phase wind park in all Latin America had to be abandoned because of rising resistance and violence in the region.

The field research for NSF #1127246 yielded several important findings and recommendations that will contribute to more positive development outcomes in Mexican energy transition in the future. (1) The dominant development model prioritizes the interests of international investors and developers and local Isthmus political elites over other stakeholder groups, especially the regional government and non-elite Isthmus residents. (2) The dominant development model has reinforced hierarchy and inequality in Isthmus communities through unequal distribution of new resources like land-rents. (3) The development model has generated significant polarization in Isthmus communities regarding wind parks and undermined trust in government and industry. (4) The financial benefits from land rents are currently primarily being directed toward luxury consumption by elites. (5) A majority of Isthmus residents appear to favor wind power development were its financial benefits to be more equally distributed. (6) Project findings suggest that the Mexican government needs to reevaluate its development model to guarantee (a) that entire communities and not simply elites are involved in project design and implementation, (b) that mechanisms be developed to guarantee that wind power development yields consistent and significant public benefits, and (c) that regional governments receive sufficient federal funds to develop a regulatory agency with the authority to guarantee that wind power development is truly transparent and beneficial to all stakeholder groups.

RESEARCH ARTICLE

Aeolian politics

Cymene Howe* and Dominic Boyer

Rice University, Anthropology, Houston, Texas, USA

Our project in this article is to unwind ‘wind power’ as a consolidated conceptual object and to consider the ventifactual arrangements of its political materiality. In a time when carbon incineration has been exposed as among the greatest ecological threats to humanity and other life on the planet, renewable energy forms, like wind power, are commonly assumed to have a clear, logical, and obvious salvational purpose: a path away from fossilized resources and toward sustainable sources of energy. Mexico has established some of the most far-reaching and comprehensive climate legislation in the world, including mandates for renewable energy production. The Isthmus of Tehuantepec, in the Southern state of Oaxaca, now hosts the densest concentration of on-shore wind development anywhere on the planet. We find, however, that the ‘good’ of wind is differentially felt. The power of the wind is not singular, but rather as multiple as the world it inhabits. We thus develop an argument against a singular interpretation of ‘wind power’ and toward a surfacing of wind’s manifold effects and ways of mattering. We call this domain: aeolian politics. In this article, we take several snapshots of aeolian politics to help articulate its multiplicity, showing how wind power becomes contoured by land and desire and by infrastructure and technological management. We also see aeolian political life entangled with cosmologies and subjectivities and implicated within the ethical domains of sustainable development.

Keywords: energy; Mexico; new materialisms; Oaxaca; politics; sustainability; wind

In some places, the dust never seems to settle. Throughout Mexico’s Isthmus of Tehuantepec wind finds its way everywhere, lifting particulate matter, raising small stones from the road, harassing the matted fur of a dog, insinuating itself against the lopping blades of turbines to make electricity. The wind in the Isthmus, as everywhere, is a negotiation between gases that are compelled across space and time by combinations of heat and cold differentials, floating over land and sea, pressured shifts in directionality and potency. This is the physicality of the wind, its material life. Wind becomes contoured by objects in its path – mountains and hills, cliffs and stands of forest, buildings and creatures. It also willfully exercises its force upon these things, carving, cracking, and pressuring – leaving ventifactual imprints. It draws our attention to points of contact and intraconnective incorporations (Barad 2007) and we often sense it best through touching (in) it (Ingold 2007). We know the wind is there because of what it does. It is a relief from the heat, a force to struggle against, a chilling medium of rain, or a welcome bluster that blows

*Corresponding author. Email: achl@rice.edu

smoke from our eyes. But the power of the wind is not singular. It is as multiple as the world it inhabits; winds both absorb and form contexts and conditions.

The winds of the Isthmus of Tehuantepec–Mexico’s narrowed girth in the southern state of Oaxaca—are legendary. Thanks to the barometric pressure differential between the Gulf of Mexico and the Pacific Ocean, they are among the steadiest and strongest winds to cross land anywhere in the world. They have been a nuisance and a cosmological force to Istmeños for centuries, but in the late twentieth century they began to be viewed as an opportunity for generating electricity and building capital. Facing the twilight of petro-statecraft, Mexico established some of the most far-reaching and comprehensive climate legislation in the world, setting legally binding targets for renewable energy sources to provide 35% of the nation’s electricity by 2024. In the past several years wind parks have proliferated, roads have been laid, and small and large fortunes made. The Isthmus of Tehuantepec now represents the densest concentration of on-shore wind development anywhere in the world. In 2008 there were two parks producing 84.9 megawatts of wind-generated electricity (*energía eólica*); four years later there were 15 parks producing over 1300 megawatts, a 1467% increase that has made Mexico the second largest wind power producer in Latin America after Brazil. The wind boom has catalyzed new alliances and conflicts at both local and national levels. The expansion of wind parks has, at times, made neighbors, friends, and families less neighborly, less friendly, or less familial depending on which side of the wind one stands. Those supporting wind power speak of global climatological good and local economic development. Those opposed to wind parks make accusations of economic imperialism by foreign capitalists coming, once again, to colonize the region with their extractive methods. Local landowners who receive usufruct rents, *caciques* (local bosses), and politicians (who are often accused of taking bribes or embezzling funds) are viewed with suspicion. Questions about indigenous peoples’ sovereignty and *campesinos*’ (farmers’) rights also loom large. In the Isthmus, the wind is increasingly freighted with politics. It makes little sense to speak of ‘wind power’ as something other than one particular discursive manifestation of a more complex and turbulent aeolian politics.

Our project in this article is to unwind ‘wind power’ as a consolidated conceptual object and to consider the ventifactual arrangements of its political materiality. If we are to take seriously the vitality of matter, as Jane Bennett has suggested, then we ought to understand that material contingencies are ‘as much wind as thing’ and that in ‘an effluence’ such as wind, we find trajectories that are not necessarily intended (Bennett 2010, 119). In a time when carbon incineration has been exposed as among the greatest ecological threats to humanity and other life on the planet, renewable energy forms, like wind power, are commonly assumed to have a clear, logical, and obvious salvational purpose: a path away from ‘pyromania’ (Scheer 2004) and toward ‘sustainability’. We are thus invited to embrace and support ‘wind power’ as an objective force for good. But in our research¹ we have found that ‘wind power’ is nowhere singular or objective and, if it is good, it is only for some and not for others. We thus develop an argument against a singular interpretation of ‘wind power’ and toward a surfacing of its manifold effects and ways of mattering. We call this domain: aeolian politics² – the multiple and contingent political trajectories of the wind, as it is domesticated for electric energy, as it is made a commodity, and as it is taken as a redemptive metaphor for a world in climatological peril.

In this article, we take several snapshots of aeolian politics to help articulate its multiplicity. We show how wind power becomes contoured by land and desire and by

infrastructure and technological management. We also see aeolian political life entangled with cosmologies and subjectivities and implicated within the ethical domains of sustainable development. This mapping of an ‘ecology of relationships’ (Descola 2013a, 5) does not draw deep divisions between the ontological capacities of nature and society, but instead allows for a careful probing of ontological recompositions (Bogost 2012; Descola 2013a, 2013b; Jasanoff 2010; Massumi 2009). The particular physicality of the wind provides a uniquely mobile space of reflection on the natures of power and purpose, causality and effect. Unlike other so-called ‘resources’ – such as water, land, or oil – wind evades enclosure; it is nothing if it is not movement, and thus it is a force that is not easily made into a propertied thing. It is elementally loose: a force that can only ever be captured, never contained.³ While the force of the wind has long been domesticated by human actors – milling grain, flying kites, blowing ships to the New World – industrial-scale electricity generation and the sprawl of wind parks is unprecedented, both in the Isthmus and in the world. Thus we need to understand how wind is now known differently—not as it has been for millennia—but as a renewable ‘resource,’ and as ‘green energy.’ As wind is increasingly cast as a valuable commodity and as its powers are rapidly industrialized, we are interested in the turbulent political spaces this uncovers. ‘Wind power’ is now designated as a force with the potential to redraft the energetic relationship between humanity and the environment; it has been made to assume the responsibility of global climatological care. Thus while the wind has always mattered, it has now come to matter in different ways.

In the spirit of this special issue, we draw inspiration from recent social and political theories that highlight the role of materials and materialities in the workings of social life (Barad 2007; Bennett 2010; Braun and Whatmore 2010; Harman 2010; Latour 2004a; 2005; Morton 2013a; Stengers 2010), and we juxtapose these considerations with how Istmeño and Mexican political knowledges and ethical imaginations seek to grasp and shape the elusive force of wind. We look for analytical balance in the critical engagement of an imbalanced world. Our concerns are situated not simply in the plane of academic debate but within the unprecedented global environmental challenges faced by planetary life. Anthropocenic conditions of climate change, species extinction, and ocean acidification prompt us to accent the contemporary and unparalleled restructuring of earth’s bio-, litho-, -aqua and atmosphere. Tremendous anthropogenic shifts like global warming, as Timothy Morton has described, constitute ‘hyperobjects’ in their own right, epistemically disabling us as they place a mirror to human conceits and reflect a conspicuous fragility (Morton 2013b, 2). Air itself, and wind as its animated form, draws our attention to these contemporary moments of ‘suspension’ (Choy 2011; Choy and Zee 2015) and toward more atmospheric ‘attunements’ (Stewart 2011). Refigurations between material, human, and non-human worlds also demand that we imagine political possibilities beyond material determinisms and social structural theories that underwrote the industrializing logics of the past three centuries. As anthropocentric social theory comes to incorporate material and ontological insights, however, we wish to maintain an oscillating appreciation for the ontological and the phenomenological qualities of ‘wind power’. We believe that wind calls for a ‘deterrestrializing’ of thought in regard to political materials (Howe 2015). Thus, we call attention to a turbulent middle ground here, aiming to deconstruct biopolitical appropriations of wind while also highlighting wind’s material powers in ontological terms. Our aeolian political analysis follows the wind and the forms of life through which it passes, pulling back the layers of political multiplicity from wind to land and from grid to green.

i. *Viento, bi, wind*

The north wind whips through,
 in the streets papers and leaves
 are chased with resentment.
 Houses moan,
 dogs curl into balls.
 There is something in
 the afternoon's finger,
 a catfish spine,
 a rusty nail.

Who can tell me
 why I meditate on this afternoon?
 Why is it birthed in me
 to knife the heart
 of whoever uncovered the mouth
 of the now whipping wind,
 to jam corncocks in the nose
 of the ghost that pants outside?

(V́ctor Terán, 'The North Wind Whips')⁴

Victor Terán is a poet and a teacher. One suspects that he would put poet first when describing himself, but he seems equally committed to sharing his words and perspective in the medium of pedagogy. He is also a man wholly opposed to the spread of wind power projects across the Isthmus of Tehuantepec, his native land. Victor's renown as a literary figure and proponent of *binnizá* (Zapotec) cultural and linguistic preservation preceded his fame as an outspoken critic of the wind parks. The place where we were finally able to meet him one Sunday afternoon evoked none of these political or preservationist qualities. Instead it was an utterly forgettable, but more or less accurately named, restaurant called *La Internacional* that had the somewhat dubious reputation of attracting Spaniards involved in the wind industry. It was also one of the few places in a very hot town that could boast of air conditioning, an apt climate for our conversation about other kinds of air and wind and breath and everything alive.

'You know, the wind has many meanings', Victor began. In Zapotec the word is *bi*. And *bi* is what designates the air and the breath. 'It is the soul of a person. And it animates everything'. Linguistically, Victor explained, the concept of *bi* is used to describe and to signal and to name all animate beings. And it is for this reason that nearly all of the *binnizá* words used to designate an animal or a plant begin with the prefix of *bi*. Including *binnizá* (the 'people') itself. He went on. *Bini* represents a seed, its reproductive essence. And so it is possible to say that *bini* is the soul, or the seed, of a person, their inherent substance. *Bi* names the pig that makes the sound *bibi* and it names the worm, the maggot, that crawls from dead flesh: *bicuti* is the creature that is both a product of spoiling meat and one that furthers fleshly decomposition. The metaphoric life of language was of interest to Victor, and to us, but his emphasis remained on the inseparability of *bi* from its essential place in structuring the lexicon. *Bi* is etymologically inherent to expression in the same way that it is fundamental to life. 'Without air there is no life and for this reason we use this prefix, *bi*, for everything. It is very interesting and it is very important because *bi* is the soul, the air, the breath, and the wind as well; it is a bundle of meanings'. *Bi* is more

than a prefix then, it is a repertoire of sensation and being that shapes the metaphoric life of language and the subjects that utter and inhabit it.

Victor depicts it simply. ‘Without the air we would not exist. Without the wind we would not exist’. The first animates, and the second is animated. Cosmologically, there is a trinity of winds in Zapotec: two from the north and the other from the south. The old north wind, *el viento viejo* should not be mistaken for a feeble wind. It is in fact the opposite: the wind that made the world through its astounding force, its primal intensity. *Biyooxho* is the northern wind of ancient genealogy that emerged at the beginning of time, ‘pushing the world into existence’. A less storied wind, but one that all Istmeños know equally well is *biguiaa*, the northern wind that is quotidian and less dramatic but still insistent when it blows. And finally, there is the southern wind (*bi niza*), the wind of the sea and the water, a revitalizing and gentle wind that soothes the heat. It gathers across the *Laguna del Mar Muerto* (the dead sea lagoon), southeast of the *Laguna Inferior* (lower lagoon), just on the edge of the Gulf of Tehuantepec. *Bi*, the air/life/breath/wind is married to *niza* (the breeze) and in this union becomes moist. *Bi niza* is often described as a feminine wind, a more tender sensation, especially when compared to each of the northerly winds, which are inversely described as *masculino*. In more than a few instances the gusting northern wind, *el viento viejo*, *biyooxho*, has been described as ‘the devil’s wind’. Its heat and intensity make it seem as though it has come from Lucifer’s lips. Wind’s powers are attributed with multiple scales of gaseous becoming, enacting, and vitality. It is wind and air that link body and cosmos, humans and deities (Adey 2014, 15). The winds’ consistency across the centuries and their powerful intermittency emerge and mingle in distinct historical imaginations. ‘Yes’, Victor concludes, nodding and thoughtful, ‘there are many kinds of wind’.

In the town of La Ventosa the wind is a power that cannot be ignored. It comes in gusts and gales. It topples 18-wheel semi-truck trailers and contorts some varieties of trees to only ever leaf and branch in one direction. It makes clothing cling like cellophane, and it will have you momentarily lose your footing; its occasional calm is usually abbreviated. And it is for this reason, in part, that the town of La Ventosa is now completely surrounded by wind parks, in every direction and at the terminus of every road in this little hamlet. For Don Julio wind power has been a boon. Passing through the carport gate that separates his house from the street he remarks on the quality of the wind at that moment. He offers that it is not bad today, just average, as he sets about arranging folding chairs on the concrete slab outside his front windows. Somewhere behind the wall is a young woman, maybe his daughter or daughter-in-law, who is preparing plastic cups full of *atole*, a sugary corn flour drink. Don Julio’s home is relatively untroubled by the dust raised by the wind, a dust which saturates seemingly every place in La Ventosa. He lives on a recently paved stretch of road. The deed of *pavimentación* was carried out by the local government in collaboration with a wind energy company with a park just on the border of town.

Don Julio, a landowner who has leased parcels of his property to the company, appears to be doing quite well. His large two-story home is fresh with paint. He attributes his relative prosperity to his contract with the wind power company and to the monthly rental income from turbine and road placement that it has generated for him. Don Julio epitomizes the developmentalist dreams of wind power in the Isthmus; his growing wealth is imagined to flow in a trickle-down fashion to other less fortunate residents – shopkeepers, laborers, and others without windy land. Don Julio openly shares his story, situating it within a longer history of the town where he has always lived. He is notably philosophical and methodical with his words, and his discourse is more ecological than most. After the *atole* has been drunk and we have heard a genealogy of renewable energy development in La Ventosa,

Don Julio returns us again to the wind. He wants us to know that the wind itself has made him strong. Like everyone in the Isthmus he explains, living with *el Norte* – the powerful northern wind that whips across the Isthmus from November to February – has an impact upon a person. ‘*El Norte* picks up rocks, pebbles and sand and it hits you in the face. It gets everywhere. And you have to stand up against it and keep working and keep going in spite of it. It makes you tough and unafraid’. Don Julio is clear about the fact that the turbines on his land and the power of the wind have made him richer. But he also evinces how the wind has crafted aeolian subjects, humans that are abraded, contoured, and affectively shaped by the wind.⁵

Wind power is captured in a conversation, and a series of cosmologies, about how the wind makes people and what people make of the wind. Just as the wind is an oscillation between and among gases, so too is wind defined by its insistence upon a reciprocal exchange between air, humans, and non-human beings and entities. Wind’s relationality is important, and indexical, for, as Karen Barad has reminded us, it is relationality that produces entities as ‘phenomena’, and it is these assemblages, inseparabilities, entanglements, and intra-acting ‘agencies’ that shift the ways in which we configure things and forces as subjects, or objects, or *relata* (Barad 2003). The wind is elusive to the visual domain except in places where it touches and moves something else. A pencil drawing of curled lines is a rendering of the wind, as are graphs and charts, but the wind is ultimately only made visible through its impact and influence on other matter, other materials, and other beings. The power of wind confirms a refusal to take separateness as an inherent feature of how the world is (Barad 2007, 136).⁶ And this is, in part, its phenomenological value. As Tim Ingold has described, ‘To feel the wind ... is to experience [a] commingling’ – an existential precondition that isolates both things as objects of touch and the perceiver as a subject who touches. The wind instructs us that we cannot touch unless we can first feel’ (Ingold 2007, s29). It is the wind’s relationality and, in turn, its phenomenological materializations that work to create aeolian subjects, who live in, from, and through the wind in its various formations and effects. Like the air out of which it is made, wind thrives on interplay and incorporation into, and against, bodies (Choy 2011). Captured by the meters of energy production, but still residing in the domains of myth, legend, and experiential value, ‘wind power’ contours aeolian political matters and subjectivities.

ii. *Tierra, terreno, land*

Wind (*viento, aire*) is never separable from land (*tierra, terreno*) in the Isthmus of Tehuantepec. This is not only because the fierce air always carries earth within it but also because so many local reckonings with force return to the question of who controls the land. Since terrestrial wind power necessitates large tracts of land on which to position turbines, substations, power lines, and access roads, one often finds aeolian politics drawn back to the earth and its masters.

Gravity is felt strongly in the *municipio* of Juchitán, a *binnizá* city with a legacy of indigenous political resistance to external power deeply woven into its local knowledge and identity. Juchitecos say they have never really capitulated to foreign powers, not to the federal forces of Mexico City, not to the mestizo Zapotecs of the Oaxacan valley, not to Cortés and his conquistadors, not even to the Aztec empire. It is true that for centuries the Isthmus has existed on the fringes of empire, a place known throughout Mexico for its violent and ungovernable population, cycling between externally imposed projects of political and economic assimilation and autochthonous cultural renaissances.⁷

Juchitán has seen intense conflicts over land tenure dating back several decades. The Mexican Constitution of 1917 was revolutionary for its recognition of the pluricultural basis of the nation and for its bestowal of extensive rights on indigenous peoples. Article 27 recognized the right of indigenous peoples to communal ownership and management of ancestral lands via *asambleas* and guaranteed that these lands could be retaken from colonial *hacienda* estates if necessary. *Haciendismo* was not as prevalent in the Isthmus as it was in other regions of Mexico, in part because of resilient indigenous traditions of communal land use and in part because its semi-arid plains were not well-suited to large-scale agriculture. Instead, pre-revolutionary Mexico City generally exerted mercantile control over the region through financing small-scale cash crop production.

Even though communal agriculture declined during the course of the twentieth century, gradually being replaced by more individuated forms of farming and relations to land, the *asambleas* remained strong in many parts of the region. In 1960, around the time the serious land troubles began, 38% of land in the Isthmus still existed in a communal property regime (*bienes comunales*), as opposed to 6% in Mexico more generally. Property rights were not actively sought in a traditional agricultural arrangement in which use, possession, and ownership of land blended together.

The catalyst for an intensified politics of property was the building of the Don Benito Juárez García dam near Jalapa del Marqués northwest of Juchitán along with an irrigation system designed to allow tens of thousands of hectares of Isthmus land to receive adequate water for more intensive and profitable forms of agriculture (Binford 1985). Even before the dam was built, land speculation swept across the Isthmus, encouraging the wealthier smallholder peasants (including among them the descendants of the pre-revolutionary *caciques*) to accumulate land. Speculation had various effects including consolidating estates, swelling the ranks of landless peasants, and creating sharper class distinctions between landed and landless peasantry. The federal government recognized the potential for serious political unrest and intervened with two federal decrees designed to limit speculation and restore the communal land traditions of Juchitán. But the infelicitous wording of the first decree in 1964 seemed to deny any possibility of smallholder property, which caused the smallholders in turn to organize politically against the state. The second decree in 1966 reinstated smallholder titles but left murky the relationship between possession and ownership of land. A landless peasant movement, *Coalición Obrera, Campesina, Estudiantil del Istmo* (COCEI), began to form in the early 1970s, using land occupation as its chief modality of action, seizing what it viewed as inalienable communal lands back from the landed peasant class.

This contentious history of *tierra* has shadowed every step of twenty-first-century wind development in the Isthmus. This is particularly clear in the township of La Ventosa, an *agencia municipal* of Juchitán, and the site of the first commercial wind farm in Mexico, *Parques Ecológicos de México* (2009). It is true that La Ventosa stands at the western edge of what is regarded to be, technically speaking, the best wind in the region (with average annual wind speed of 9.3 meters/second and top speeds in winter of 30 m/s). But the reason that La Ventosa has become encircled by wind turbines has more to do with the politics of land than the technical quality of wind (Oceransky 2009; Pasqualetti 2011). Since the 1980s, La Ventosa has been the epicenter of militant smallholder politics in the Isthmus. The town's current *cacique* is Don Porfirio Montero Fuentes, a local Partido Revolucionario Institucional (PRI) and evangelical Christian leader, who rose to power fighting street battles against COCEI in the 1980s. Local historian José Lopez de la Cruz told us: 'It was the 1980s and Porfirio talked a lot about how the reds would come and steal our land from us. And then COCEI did actually try to occupy a large plot of land in La Ventosa,

which belonged to an administrator in Juchitán. I remember Porfirio leading a group of armed men down the street, with guns, sticks, machetes, and they eventually drove the COCEIstas off'. Somewhat ironically, Montero celebrated his victory by taking the majority of the administrator's land for himself and his allies. Montero subsequently became a fierce advocate for private property rights in the Isthmus and used his growing political influence in the governing PRI party to secure something approximating a private property regime at least in the lands surrounding La Ventosa. Montero also developed close relationships with Spanish renewable energy companies like Iberdrola and Acciona Energía, encouraging them to invest in La Ventosa, guaranteeing them that contracts would be upheld by the authority of the state or better yet by him and his political network.

We interviewed Montero around the time the first La Ventosan wind farm was coming on-grid, and he told us he was upset that the lack of government mediation had led to meager returns on the long-term (20+ years) land rents. 'For ten years, I've been telling [the government] that they need to create a committee to regulate what is going on down here and no one has listened to me. Why can't we be paid closer to the price that the government is paying [the companies to produce electricity]. We're the ones producing the energy. ... when you look at the generation that is going into their substation, we are only making about 1.5%. *Oye eso es sucio*' (Yeah, that's just dirty). Montero's thinking was clearly transitioning from a logic of land to a logic of energy in that he wanted rents calculated not by hectare but by megawatt, 100,000 pesos per megawatt, 'this is what we are proposing to them'.⁸ Yet the transition was only halfway in that he still viewed wind as a fixed material resource, much like land, 'it can be low, medium or high but the wind is always blowing'. Thus Montero rejected a variable payments model, insisting on a fixed one, 'the same for all of us'. Bankers in Mexico City later told us that Istmeños have been very creative and persistent in the matter of land rents. 'They've even invented entirely new kinds of rents that don't exist anywhere else', one project financier told us. One of these was *derecho de viento*, a payment to an individual or community for the wind's passage over a given area of land en route to a turbine, literally a terralogical easement placed on the kinetic force of wind.⁹

In Ixtepec, a *municipio* to the northwest of Juchitán, a group of *comuneros* and a NGO, Yansa, are working together to develop the first communally owned wind park project in Latin America (Hoffmann 2012). Unlike the commercial model of a 1.5%–2.5% payment to rentiers, 50% of the revenues would be returned to the *comuna* to be put toward social projects and a retirement fund for aging farmers. Daniel González is one of the leaders of the initiative and a lawyer in town. But he is also the grandson of a rancher and a farmer. Now his grandfather's lands belong to him. 'But along that road where there used to be ranch after ranch, there are now only four remaining and you know how many people still live out there? Just one. Even I don't live there because I have so much going on in town'. In his retirement, he has taken up growing sorghum again, 10 acres, and that taught him how much the infrastructure of irrigation has collapsed over the years, as fewer and fewer farmers worked to maintain it. And other infrastructures were in decline as well, those that linked land and language and ethnicity. Daniel spoke Zapotec in his youth even though almost all his professional life he worked in Spanish. He was teaching his own grandson Zapotec now, taking him out to places around the Isthmus where Zapotec was still the primary spoken language.

The future of the communal wind park project remains uncertain. The national electricity utility, the Comisión Federal de Electricidad (CFE), will not allow them to bid for access to the grid because the *comuna* and NGO partner do not have sufficient capital in the bank and letters of credit to do so. It is a vicious circle, the NGO founder tells us, 'we can easily get sufficient

capital to build the park from socially responsible investors and banks in Europe, but they will only guarantee that credit if we have a contract with CFE for grid access'. The *comuna* elected to challenge CFE in court. An added twist is that CFE built the largest substation in Latin America on communal Ixtepecan land in order to evacuate all the new electricity from the Isthmus wind farms to the main trunk line toward Mexico City. The *comuna* claims that CFE never even sought a contract for that use of land, nor formally expropriated it, they simply occupied the land and began building a substation. A squatter grid.

Daniel explained to us, 'So this was a case of exploitation and theft (*despojo*) on two grounds. First, the illegal occupation of our land by the substation and second by refusing us the right to even compete for access to the substation'. Not only was CFE the target of the complaint, but also the Mexican federal environmental ministry, SEMARNAT, for having granted the CFE the right to *cambio del uso del suelo* (change of land use) for Ixtepecan land on, it is alleged, a fraudulent basis. The complaint is still winding through the Mexican court system, although Daniel is optimistic that a political solution will be reached to allow the communal park project to proceed.

Elsewhere in Ixtepec, a city of few landed peasants and many landless migrants, optimism regarding 'wind power' is mixed. Like many places where debates about wind power bluster, questions of equity are often at the center of critiques (Wolsink 2007). Raul Mena, one of the many educated yet underemployed young people in town, told us that even if the park happened it would 'only benefit the *comuneros* anyway' who kept to themselves, maintaining a tradition of communal agriculture that offered little by way of a future to Ixtepec's youth. We asked Raul to whom the Ixtepecan wind belonged and he said, 'To us! To all of us here! It's not like *terreno* [a plot of land] but it is partly of the *tierra* [earth]'. We have a similar conceptual slippage in English between 'the earth' and 'land', undoubtedly owing to our own agrarian legacies past. But Raul was making a more specific point – the wind was *not* like the land of the *comuna*, it was not something that could belong to just some Ixtepecans. The wind thus hinted at the possibility of a broader redistributive commons, a binding through airborne arid soil, answering the yearning of landless Istmeños to reconnect to 'their' land.

iii. *La red, la luz, grid*

We discovered through our research in Ixtepec that 'wind power' was also very much about the politics of energy infrastructure and specifically about the administration of *la red* (the grid). It was not solely the political and legal challenges the squatter grid faced in Ixtepec that troubled further development but also the engineering challenges involved in harvesting wind, especially the turbulent wind of the Isthmus.

When we spoke to administrators and engineers at CFE, we discovered widespread ambivalence regarding the merits of wind power because of its lack of constancy. Although there was general agreement that Mexico had wonderful wind resources that ought to be utilized in some way, our interlocutors expressed concern that the nature of the wind did not correspond well to the needs and logic of the grid. 'From the perspective of the administration of energy, there's a type of energy we call "baseload" [*energía base*]', Francisco Diaz, a department director from CFE explained to us. 'Above all this is thermoelectric energy where you supply it with combustible fuel and it works, just like a motor. It's *muy constante* [very constant]. Geothermal is that way too. But with all other sources, even hydroelectrics, output will depend on the rains of the previous year. So in a dry year you might not have enough supply to meet demand. It is the same way with *las eólicas* [the turbines]. You might have a peak supply and an average supply. But those

are just numbers. In reality the supply is constantly fluctuating between highs and lows. And for that reason in most cases of wind energy you need to build extra thermoelectric support installations just to guarantee the supply of energy'. Perversely then, investments in wind power necessitated still further investment in fossil fuel plants, just to guarantee that 'average supply' could be maintained on windless days. Consumers were constantly hungering for energy, 'and they know nothing about how it is generated', one engineer lamented, 'they simply want *la luz* [light, electricity] when they turn on the switch'.

The principal fear of the electrical engineer was that the thrown switch would yield nothing but further darkness, a negation of their professional expertise and administrative competence (Nye 2010). Journalists in Mexico City told us stories about how, until relatively recently, CFE would sometimes shut power down to entire factories, for hours and without warning, simply in an effort to preserve domestic supply. Many Mexican companies began building their own generating plants as a result, and private electricity generation now accounts for over 30% of the total national supply.¹⁰ Even so, we found that the overriding concern of CFE was that the grid, which remained their property and responsibility, needed to be kept swollen with *constante* electrical enablement. *Intermitencia* (intermittency) was a congenital deficiency of 'wind power'. And it often seemed to us that they wished they could be rid of the uncertainty that accompanied it.

To be clear, CFE officials also expressed pride in Mexico's participation in the Kyoto Protocol and understood the environmental disadvantages of the intensification of fossil fuel use. They simply felt, as 'administrators of energy', that intermittency was a plague on their work. Grid managers elsewhere also frequently describe renewable energy as a threat. A study released in May 2014 by the North American Electric Reliability Corporation (NERC)¹¹ opens with the statement, 'The North American Bulk Power System is facing a perfect storm of reliability threats that could result in significant changes to the way the power grid is planned and operated. Many of these threats are the result of a combination of traditional baseload generation retirements and the addition of many Variable Energy Resources (VERs) to replace the retirements' (NERC 2014). VERs refer to renewable energy sources like solar and wind that create intermittency challenges at the grid level, including the need to keep back-up conventional power sources 'spinning' so that they can

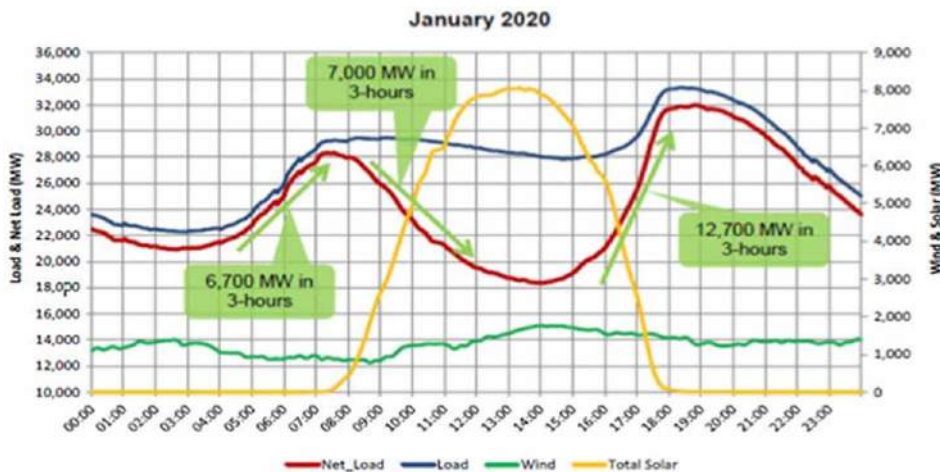


Figure 1. Projected load scenario for California in 2020.
Source: NERC 2014, p14.

be ‘ramped-up’ immediately as renewable power drops to bolster ‘reliability’. Scenarios like this one the NERC commissioned for California in 2020 visualize these new problematics of engineering reliability. In the scenario depicted in [Figure 1](#), we see abundant daytime solar energy forcing grid operators to scale up and down baseload carbon-fueled electricity generation dramatically over a period of a few hours, necessitating greater real-time attention to supply and demand fluctuations.

Yet, conventional electricity plants cannot be turned on and off like a light switch; they take hours to come up to full generation capacity. Thus, even with abundant renewable energy, managing baseload requires keeping extra MW capacity ‘spinning’ when it is not needed, a practice grid managers view as necessary but wasteful and expensive. Electrical engineers point to cases like Germany where close to 30% of electricity is now generated by renewable sources. There the economic fortunes of utility operators are flagging since they are legally required to provide bulk baseload electricity as costs mount and revenues decline, making it an increasingly precarious venture.

And there is more bad news still. A recent study published in the journal *Physical Review Letters* (Milan, Wächter, and Peinke 2013) found that wind energy was more volatile and turbulent than had been previously calculated. In the researchers’ study of a German wind farm, they found that as wind speed changed the power output of the farm could shift by as much as 50% within two minutes. They also disproved ‘the deceptive argument that clustering wind turbines averages out their turbulent fluctuations’ (2013, 138701–4). Indeed, the researchers found that regardless of how far apart turbines were spaced, ‘wind turbines do not only transfer wind intermittency to the grid, but also increase it ...’

Thus, the squatter substation, Ixtepec Potencia, the largest and most technologically advanced substation in Latin America, is not solely deemed a danger to the Ixtepecan *comuneros* but also in a certain respect to the grid itself. Absent some capacity for massive energy storage—which continues to be deemed technologically and economically unfeasible at present—Ixtepec Potencia is a net turbulence importer to the Mexican national grid. To help combat this threat, CFE purchased a state-of-the-art Static Var Compensation (SVC) system from the Swiss firm ABB to mitigate power oscillations on the high-voltage line from the Isthmus to the main trunk line. As an ABB spokesperson explained to us, ‘Even before wind power, grid operators have faced the challenge to balance the power produced and the power consumed, due to the fact that energy is still today technically expensive to store. So all power produced has to be consumed. Before this intermittent generation was inserted into the grid, the challenge was mostly due to the variations in the load side and disturbances caused by long transmission lines. Nowadays, with these new forms of cleaner energy, the challenge is greater as disturbances¹² come also from the generation side which before was more easily controlled’.

These are the energopolitics (Boyer 2014) of renewable energy, the front lines of transformational struggle hidden within the infrastructural ubiquity and opacity of *la red*. Hidden too is the growth imperative of the grid, needing massive demand to meet massive supply since ‘all power produced has to be consumed’. Istmeño critics of wind power recognize this paradox. One activist told us: ‘All this supposed clean energy is going to power more Walmarts and cement factories, and those are the true problem’. And, yet, Mexico’s Green Revolution continues to advance.

iv. *Verde, green*

The Kyoto Protocol never demanded that the country of Mexico reduce its emissions. And yet President Felipe Calderón (2006–2012) inaugurated legislation¹³ that made Mexico one

of the few developing countries in the world to enshrine long-term, comprehensive climate targets into law. In June 2009, the federal government formally committed to a detailed plan for green house gas reductions, the *Programa Especial para Cambio Climático*, targeting a 30% drop in emissions by 2020 (and 50% by 2050). The Renewable Energy and Energetic Transition law (2008) requires that 35% of electricity come from non-fossil fuels by 2024, growing to 40% in 2030 and 50% in 2050. Calderón's decision to pursue this legislation was compelled by his long-standing interest in environmental protection which, he explained to us, stemmed from when he was a teenager and first learned about ice cap melts, deforestation, acid rain, and the ecological limits of growth. Calderón sees his country as deeply implicated in the fossil fuel complex, with up to 43% of the federal government budget dependent on the profits of *Petróleos Mexicanos* (PEMEX), the national oil company. Vulnerable to the fiscal turbulence of oil as a commodity and equally susceptible to the contingencies of a carbonized climate, he explained that 'sooner or later, Mexico will need to face the problems related with climate change, because while [Mexico is an oil producer] it is also one of the countries that will suffer the most – the consequences – and it is suffering already'. When it comes to oil, he went on, 'you can depend less, you know, every day if you decide to'.

'Deciding to' generate sustainable forms of energy is also a decision to intervene in the ethics of climatological care. However, while wind power operates to inhibit carbon combustion, it is equally an investment in the suspect growth imperative of modernity, ensuring that power consumption endures and that energy production, now greened, continues to generate profits. Throughout the Isthmus of Tehuantepec where parks have bloomed in every direction, the advent of renewables and carbon mitigation targets have raised questions about how sustainable energy projects may disenfranchise local populations and limit local autonomy to determine how land, air, and water are to be used and managed. Wind power thus becomes a site of political contestation and scalar debates regarding the good of the planet versus the good of the people. In this fraught struggle over interests, global and localized, an ethical tension is pulled more taut, and wind power's supporters leverage green assurances and a promissory future. Wind power is an energetic source to be sure, but it is also a device through which corporate and state interests craft their ecological profile and proclaim moral authority in the practice of climatological care.

Four beautiful women outfitted in the colorful splendor of binnizá traditional dress make for a telegenic scene poised against a backdrop of enormous turbine columns, white and new and gleaming. Almost everyone else here is not a woman. There are government officials, municipal leaders, engineers, and electric company representatives. The media are present in unusual abundance, waiting for the president of the republic and the governor of the state to helicopter in. The inauguration of this wind park near Santo Domingo Ingenio will be Calderón's last of many wind park ribbon-cutting ceremonies. When he was Secretary of Energy, Calderon advanced the cause of wind energy across Mexico. Now, as his presidential term nears its end, the installed capacity of Mexican wind accounts for a huge percentage of the country's clean development mechanisms. Calderón's speech today is not triumphant, nor is it a swan song. Instead it pivots between hope and precarity. He begins with droughts, the most severe ever seen in Mexico and to the north in Texas. 'This is climate change', he says to his audience of several hundred seated in front of him. 'Carbon dioxide is like a sweater surrounding the earth', heating the ocean's waters and making for both more and less rain that is, overall, differently distributed. 'However', he goes on, 'we cannot stop using electricity or building factories. Instead we need to make electricity with less smoke. We need to reduce emissions'. And here, in the heart of the Isthmus is where much of this is already occurring.

The president calls attention to the engineering careers that wind power has brought to Oaxaca, and to the jobs in the supermarkets, now more plentiful because of the ‘economic spillover’ of wind power. But Calderón’s ethical intervention and wind power’s role in it represent more than local jobs in Isthmus towns. ‘Mexico’, he says, ‘is an important part of all humanity, the twelfth most populated country in the world’ and thus and therefore, a place that can make a climatological difference, here and now.

The Mexican Ministry of Energy has lauded the growth of renewable energy projects. From the perspective of SENER, wind power, specifically, has many vectors of potential, locally, nationally, and globally. The winds of Oaxaca are, according to SENER:

an opportunity to reduce emissions without compromising national economic development; an opportunity to contribute to climate change mitigation; an opportunity to attract investment to Mexico; an opportunity to develop local capabilities; an opportunity for technological development; an opportunity to increase the nation’s global competitiveness. (SENER 2007, 32–3)

One of the reasons that ‘opportunity’ so fluidly emerges in state discourses is that in addition to being the site of some of the best wind in the world, Oaxaca is also one of the poorest states in the country, a place where economic development is often prioritized in government programs and politicians’ ambitions. The director of Sustainable Energy for the State of Oaxaca relayed this in unambiguous terms. ‘If it weren’t for the wind, there would be no development [in the Isthmus]’. For many state officials their conviction to promote economic development through sustainable means – such as wind power – is, in part, an ethical calling to bring further degrees of prosperity to the region. The future of the Isthmus is, in this way, married with the development plans of private capital in a tidy moral tale that is often described as ‘win–win–win’. Opportunity is articulated across all dimensions of social life and economic health – from investment metrics, to local capability enhancement, to global climate change mitigation. Federal governmental offices, such as SENER, designate a series of environmental and economic futures as the proper way forward for the nation; in turn, they also burnish their own green reputational value. Wind power is positioned as a remedial method of ecological care and as a generator of economic value and technological potential. But wind power is also the material instantiation of an ethical exercise intended, at least nominally, to benefit the ‘greater good’, of local populations and the Mexican nation and, ultimately, in service to the planetary bios.

The Mareña Renovables wind park is a case in point. Had it been constructed it would have been the largest single-phase wind power project in all of Latin America. It was designed for a total installed capacity of 396 MW of gross power with 102 turbines to be positioned across the Barra de Santa Teresa, and another 30 in the town of Santa Maria del Mar. The Mareña park would have prevented 879,000 tons of greenhouse gas emissions, and it would have represented a new scale and dimensionality to wind power in the Isthmus of Tehuantepec, providing the equivalent of half a million homes’ worth of renewable electricity. The proposal for the Mareña project had all of the signature elements of success in a time of neoliberal development projects and attempts to staunch climatological harm. It was bank-rolled by international development banks and touted as a boon for local communities by government representatives – from officials in Mexico City and the state capital, to provincial authorities in the Isthmus. All of its environmental credentials appeared indisputable: from infinitesimal attention to local ecosystem protections (preserving mangroves, jack-rabbits, sea turtles) to the colossal demands of safeguarding the climate (averting gases, particulate matter, carbon combustions).¹⁴ The Mareña consortium carefully deployed its ecological authority as it sought to maintain equilibrium across

different scales of environmental and human health. Local protestors, however, were unconvinced. They believed that the park would cause irreparable environmental harm and diminish fishermen's catch, and, perhaps worse still, it would represent yet another mode of colonial extraction in what the opposition called *la nueva conquista* (the new conquest) of green neoliberalism. It was their blockades of roads and passages and their national and international media attention that delayed the Mareña project into oblivion, until it ultimately became the wind-park-that-never-was.

In the case of Mareña, wind power was positively charged with a potential to foment local economic growth and remediate global ecological conditions. Its negative polarities were equally dense constellations based on centuries of suspicion and contemporary conditions of deprivations and deceptions. The project was scaffolded by the eco-authoritative positions of environmental impact reports and ethical claims to protect the global biosphere, but ultimately derailed by demands for local sovereignty and stewardship (Howe 2014). Aeolian politics represent a constellation of forces and materials that involve corporate sustainability profiles, government projects and the performance of climatological care, but it is often in the "devil's wind" that questions of environment and authority raise turbulent questions about ecological futures.

v. On the mission of critical theory in the Anthropocene

In his turn to face the Anthropocene, Bruno Latour has wondered what has taken the wind out of critique. Citing his own role in attending to the constructedness of scientific facts, he laments the ink given to climate change denialists whose tactics seem eerily parallel. He worries about deconstruction abetting destruction (Latour 2004b, 225) and hopes to refocus our attention not on matters of fact but rather on 'matters of concern'.

Wind power is one such a matter of 'concern'. It is by turns object, operator and index, ever a venti/fact/ish over which corporate executives, politicians, engineers, landowners, activists, neighbors and anthropologists can all exert their varying degrees of epistemic and moral authority. Wind power is the nexus for a series of competing, and also often compelling, ethical projects, forms of expertise, and political claims. Wind power offers a medium in which propositions of value circulate and, ultimately, manifest in an abundance of materio-political forms—among them, turbines, substations, voltage regulators, carbon credits, rents and profits. Materio-political forms indeed make circulations visible (Gaonkar and Povinelli 2003) and they affect the constitution of political actors and their engagements (Barry 2001; Bennett 2010; Mitchell 2011; Braun and Whatmore 2010).

But the urgency of the Anthropocene means that we also need to practice deconstructing and reconstructing some of our more comfortable objects of salvation. For as our analysis of aeolian politics shows, 'wind power' is not one but many 'things', differing ensembles of force, matter and desire. Wind power has no summary form; it is a matter of pressures, flows and frictions, air moving around and through efforts by authoritative discourse and knowledge to orchestrate it as a simple 'object' of analysis, intervention and action. Still, we do not doubt that wind power has objective political efficacy any more than we doubt that the Istmeño wind blows the roofs off houses and flips tractor-trailers, abandoning them like beached whales on asphalt shores. But, to stay true to that wind, it blows in many directions and intensities – it is the cruel wind of the devil and also the soft breeze of redemption. What we are trying to say is that some constellations of aeolian politics may be capable of blowing us back toward the Holocene; others will not.

One final comment: Our exploration of aeolian politics absorbs inspiration from political materialism, and from the broader anti-anthropocentric turn in the human sciences.

But just as the Istmeño wind agitates, we do not want that turn to be too comfortable in its revelations. Yes, materials, forces and infrastructures matter to wind power, but so do signs, discourse, phenomenology, policy, human agency. If we pass gently into the posthuman without demanding accountability for the modern species being that continues to warm the earth and extinguish its forms of life, the task of critique will remain incomplete. We thus urge political materialism and more traditionally anthropocentric political analysis to collaboratively engage one another. The point, after all, is not who owns and deploys the better concepts. The point is to develop a critical analysis adequate to the epistemic and ethical challenges of life on a damaged planet.

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Notes

1. This article is based on a collaborative research project by the authors. Initial research in 2009 and 2011 was followed by extended fieldwork from May 2012 until August 2013 which generated hundreds of interviews with those involved in, or implicated in, the development of wind power in the Isthmus of Tehuantepec including local residents, private landowners, collective landholders, wind park developers and corporate representatives, journalists, activists, investment and development bankers, as well as local, state, and federal government officials in Oaxaca City, Mexico City, and several municipalities in the Isthmus.
2. We distinguish the concept of 'aeolian politics' from the general term 'wind power' for several reasons. 'Aeolian' draws its etymology from Aeolis, the Greek god of wind, but we also derive aeolian from the emic categories voiced by our interlocutors. *Los Eólicos* is the Spanish term commonly used in Oaxaca to designate wind park developments, and wind-generated energy is dubbed *energía eólica*. Equally ubiquitous across the Isthmus of Tehuantepec is resistance to the proliferation of wind parks, known locally as the *anti-eólico* struggle. Finally, aeolian processes are defined as the effect of wind upon geological and weather phenomena; most specifically aeolian processes signal how the wind contours or shapes planetary surfaces. Our 'unwinding' of wind power draws from each of these dimensions, with an attention to the contemporary reshaping of our planet's surface in the Anthropocene.
3. Wind machines (to test aerodynamics for example) or fans (for cooling) are instances of human-generated wind, but their fundamental property continues to be (gaseous) movement and interaction. Unlike solid (minerals, coal), liquid (water), or viscous (oil) resources, wind only exists in motion; it is generative solely through movement. It is contra-static.
4. These stanzas are excerpted from Terán's poem, published in English in *Poetry Magazine* (April 2009).

5. Here we are designating a subjective status of a man worn and having won in particular ways, through the wind. Don Julio did not describe himself as an ‘aeolian subject’, but he was clear that his life had in fact been deeply contoured by wind’s effects and powers.
6. Barad calls for an ‘agential realist ontology’ wherein ‘phenomena are the ontological inseparability/entanglement of intra-acting “agencies”’ (2007, 139).
7. We do not wish to understate the national and imperial (Spanish, Mexican, United States) ambitions for the Isthmus nor their legacies, ranging from interoceanic canal-building plans of the early twentieth century to the more elaborate infrastructures of Proyecto Mesoamerica today. Our point is simply that these ambitions have been frequently contested and sometimes thwarted by local resistance. The Isthmus has long troubled the realization of imperial aspiration.
8. Given the figures Iberdrola estimated to us in December 2011, that they were paying roughly 7,000,000 pesos a year for 80 MW, Montero’s suggestion would have amounted to a 12.5% increase in payments.
9. The history behind *derecho de viento* is a matter of some speculation and dispute in the Isthmus. But local historians and journalists suggested to us that it was a practice designed to help spread rents more evenly especially when land was held in an *ejidal* property regime. Thus, for example, even if an *ejidatario* possessing the land upon which a wind turbine would be built would receive a lucrative rent contract, a neighboring plot of land would still receive some benefit via *derecho de viento*. Even though the Salinas-era reform of the *ejido* system encouraged *ejidatarios* to consider their plots as private property, *derecho de viento* suggests a certain enduring communitarianism among collective landholders.
10. For this reason, the majority of wind park projects in Mexico are organized in a public–private partnership scheme known as *autoabastecimiento* in which a wind power developer signs a long-term power purchase agreement with an industrial partner (examples include Walmart, CEMEX, FEMSA-Heineken) mediated by CFE, which, as a matter of Mexican law, is the only entity actually authorized to purchase and sell grid-based electricity in the country.
11. NERC is a non-profit organization established by the electrical utility industry in 1968 in response to the Northeast Blackout of 1965 to set standards for power system operation and to coordinate planning and operation of the ‘bulk power system’ of the United States, Canada, and part of Baja, Mexico.
12. These disturbances include rapid voltage fluctuations, overloads and underloads that can be damaging to equipment designed for stable current. Electricity infrastructure in the Isthmus, it must be added, was plagued by problems long before wind power arrived. Some Istmeño communities experience routinely intermittent electrical service, a fact which is routinely blamed on CFE for their greed and incompetence.
13. In May 2007, President Felipe Calderón announced the National Climate Change Strategy, instituting climate change mitigation as a central part of national development policy. In 2012, before leaving office, Calderón signed the General Climate Change Law that formalized targets set in previous legislation, inaugurated the National Institute of Ecology and Climate Change, and coordinated federal offices to develop holistic mitigation and accommodation planning.
14. The Mareña project then recapitulates Latour’s diagnosis of political ecology (2004a): it ideologically claims to defend nature for nature’s sake (in the register of a biocentric logic as opposed to an anthropocentric one) but nonetheless continues to assign stewardship to humans and is predicated on the well-being, comforts, pleasures, and good-feeling conscious of a few (select) humans.

Notes on contributors

Cymene Howe is Associate Professor of Anthropology and a core faculty member in the Center for Energy and Environmental Research in the Human Sciences and the Center for Women, Gender and Sexuality at Rice University. She also co-edits the journal *Cultural Anthropology* (2015–2018) as a member of the editorial collective. Her earlier research—focused on sexuality, rights and subjectivity—has been published in several journals, crossing disciplinary boundaries, and her book *Intimate Activism: The Struggle for Sexual Rights in Postrevolutionary Nicaragua* was published by Duke University Press in 2013. Her research priorities are now centered on ecologies, energy, and the politics and materiality of climate change. Her forthcoming book with Cornell University Press, *Ecologies* takes an experimental scholarly form, a duograph, written in parallel with Dominic Boyer. The multimedia volume follows renewable energy transitions in Oaxaca, Mexico and draws upon the

overlapping conversations between feminist and queer theory, new materialisms, multispecies ethnography, ontologies and imaginaries of the future in the Anthropocene.

Dominic Boyer is Professor of Anthropology at Rice University and Founding Director of the Center for Energy and Environmental Research in the Human Sciences (CENHS, culturesofenergy.org), the first research center in the world designed specifically to promote research on the energy/environment nexus in the arts, humanities and social sciences. He is part of the editorial collective of the journal *Cultural Anthropology* (2015–2018) and also edits *Expertise: Cultures and Technologies of Knowledge*, a book series for Cornell University Press. His most recent book is *The Life Informatic: Newsmaking in the Digital Era* (Cornell University Press, 2013). With James Faubion and George Marcus, he has recently edited, *Theory can be more than it used to be* (forthcoming, Cornell University Press) and with Imre Szeman is preparing *Energy Humanities: A Reader* for Johns Hopkins University Press. His next book project is a collaborative multimedia duograph with Cymene Howe, which will explore the energopolitical complexities of wind power development in Southern Mexico.

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Los márgenes del Estado al viento: autonomía y desarrollo de energías renovables en el sur de México

By

Cymene Howe and Dominic Boyer

RICE UNIVERSITY

Edith Barrera

UNIVERSIDAD DEL MAR

R E S U M E N

En el istmo de Tehuantepec, Oaxaca, intereses públicos y privados han creado uno de los proyectos de desarrollo de energía eólica más ambiciosos del planeta. Este artículo se interesa en el proceso a través del cual un proyecto ecológicamente relevante y con sólidas bases financieras como el parque eólico “Mareña Renovables” termina fracasando al encontrarse con inesperados niveles de resistencia local. Las razones para el fracaso del parque incluyen la percepción de falta de transparencia, la manipulación de las autoridades locales y la preocupación acerca de la creciente inequidad social, polarización política y violencia en la región. Al explorar estos obstáculos ante lo que hubiese sido el parque eólico monofásico más grande de Latinoamérica, el artículo mapea la genealogía política del movimiento de resistencia anti-Mareña y su compromiso con estructuras organizativas horizontales. Asimismo, el texto describe la manera en cómo la resistencia criticó las formas neoliberales de desarrollo y la intervención financiera extranjera. Finalmente, el artículo considera las preocupaciones medioambientales planteadas por la oposición local y las consecuencias sociales del desarrollo a nivel de “megaproyectos”. Al examinar el caso de Mareña los autores argumentan que si bien la transición hacia energías renovables tiene el potencial ético de promover el bienestar climático global, tal evolución puede también generar las condiciones para el fracaso si es considerada como una contravención a los reclamos por mayor autonomía,

conocimiento y gestión ambiental local. [México, energía renovable, movimientos sociales, medioambiente, indigeneidad, autonomía]

A B S T R A C T

In Oaxaca's Isthmus of Tehuantepec state and private interests have created the densest development of wind power anywhere in the world. This article examines how a well-supported, ecologically timely project, the Mareña Renovables wind park, failed in the face of unexpected levels of local resistance. The reasons for the park's demise involve perceptions regarding a general lack of transparency, anger at the manipulation of local authorities, and worries about growing social inequality, as well as political polarization and violence in the region. Exploring the challenges faced by what would have been Latin America's largest single-phase wind park, this article charts the political genealogy of the anti-Mareña resistance and their commitment to nonhierarchical organizational models; it describes how the resistance criticized neoliberal forms of development and foreign financial intervention; and finally, it considers how local opposition raised concerns regarding the environmental and social consequences of "megaproject"-level development. The authors argue that while transitions to renewable energy have the ethical potential to leverage a global climatological good, when they are seen to contravene local claims for rights, autonomy, environmental knowledge, and ecological stewardship, they instead generate, as Mareña found, the conditions for failure. [Mexico, renewable energy, social movements, environment, indigeneity, autonomy]

La encrucijada de la energía eólica en Oaxaca

Un día de febrero de 2013, la antropología se encontró con el neoliberalismo verde¹ transnacional en los márgenes del Estado mexicano.² Esto ocurrió en el Istmo de Tehuantepec, en el pueblo de Santa Rosa de Lima, donde se había puesto un retén de la policía estatal justo en el punto en el cual la carretera de Juchitán gira al sureste para tomar hacia Álvaro Obregón. Decir que era un "retén" exagera un poco la formalidad de la situación. Había dos camionetas de la policía estatal estacionadas a un lado de la carretera, justo en frente de unas canoas de madera, señal de haber cruzado la frontera hacia la zona de pesca de la Laguna Superior. La policía revisaba a medias y sin ganas nuestros papeles, sólo porque le pedimos al señor Tomás, nuestro conductor de taxi ese día, que detuviera el automóvil. Un representante del Gobierno de Oaxaca nos había dicho esa mañana que la situación en Álvaro era muy tensa. Dijo que la policía les había informado que se veían camionetas llenas de hombres armados andando por el pueblo de manera

amenazante. El señor Tomás, en cambio, nos dijo que no teníamos nada de qué preocuparnos. Mientras conducía a través de los potreros verdes que caracterizan a los ranchos del sur de Juchitán, nos explicó cómo la política siempre está ligada al dinero en el Istmo: “Así es como es siempre, la gente hace mucho ruido sobre esto o lo otro. Pero es sólo porque quieren que les paguen. Cuando se les pague, toda esta resistencia se irá, ya verán”.

Lo que no esperábamos ver en Santa Rosa, y que nos hizo pedirle al señor Tomas que orillara el automóvil, era ver a dos gringos hablando con el comandante de la policía local. El más alto resultó ser alguien a quien habíamos estado buscando sin éxito desde hacía algún tiempo, Andrew Chapman, miembro del equipo directivo de Renovables Mareña, un consorcio que busca construir el mayor parque eólico monofásico más grande de toda Latinoamérica con 132 turbinas y una capacidad de producción de 396 megavatios. Mareña, como todo el mundo en la región ya lo sabía, estaba en serios problemas. Su parque había sido diseñado para extenderse sobre una barra de arena en el extremo sur de la Laguna, desde la comunidad binnizá (zapoteca) de Álvaro hasta las comunidades ikojts (huaves) de Santa María del Mar y San Dionisio del Mar.

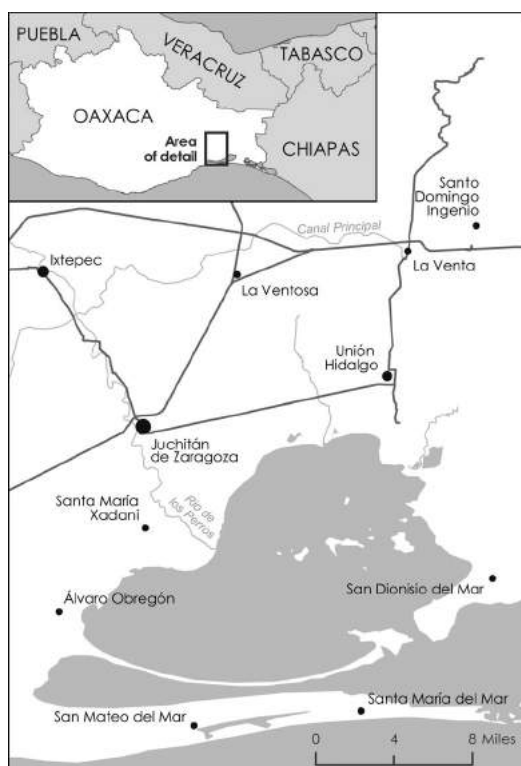


Figure 1 *Zona Central del Viento, Istmo de Tehuantepec, Oaxaca, Mexico.*

En sus inicios, la fecha prevista para la finalización de las obras era a finales de 2012, pero el proyecto sufrió varios retrasos antes de convertirse en el foco de una creciente resistencia durante el segundo semestre de 2012 por parte de las Asambleas Populares en toda la región lagunar. Tal y como se discutirá con más detalle en las siguientes secciones, las asambleas son proyectos comunitarios de autogobierno. Ellas han existido en el pasado pero en la actualidad son utilizadas como parte de la organización antieólica en la región, unidos contra los megaproyectos gubernamentales e industriales en la región. A finales de 2012, se habían hecho bloqueos tanto en Álvaro Obregón como en San Dionisio del Mar para obstruir el inicio de la construcción del parque Mareña. De hecho, un día antes, el Presidente de la Junta Directiva de Mareña, Jonathan Davis Arzac, había anunciado a la prensa que el proyecto y lo que la empresa calculaba podía ser una inversión de 13 mil millones de pesos en la región, dejarían Oaxaca a menos que se pudiera garantizar el “estado de derecho”. Davis afirmó que sólo había unas “veinte personas bien identificadas” que se oponían al parque, lo que él y los medios de comunicación oaxaqueños caracterizaron en ese entonces como una minoría violenta y sin escrúpulos de oportunistas políticos que estaba chantajeando a los desarrolladores de proyectos y a la comunidad. Mareña no estaba dispuesta, o no podía creer, que un gran número de Istmeños se opusiesen a un proyecto que el consorcio consideraba inmensamente benéfico para todas las partes interesadas.

Aunque ya teníamos motivos para sospechar acerca de la minimización pública y la criminalización de la oposición, nos pareció difícil no simpatizar con Chapman. Nos habló abiertamente, gritando sobre el viento hasta quedarse ronco, y parecía ser un hombre desesperado por ser escuchado:

“Mi trabajo consiste en ir allí, tratar de abrir un diálogo y escuchar. Pero no puedo hacer eso con amenazas de violencia. Si está seguro para enviar a mi gente, yo los envío... La única forma de cambiar mentes es escuchando a la gente. Pero si no te dejan escucharla, ¿qué puedes hacer? [Levantando las manos en su desesperación]. Tenemos este proyecto, que realmente creo es bueno para el planeta, bueno para la región, bueno para la gente de aquí”.

Chapman estaba seguro que las personas entrarían en razón:

“Uno no puede dejar de sorprenderse ante la belleza de este lugar. Y entonces ves cómo vive la gente. Y no estoy tratando sólo de imponer mis valores estadounidenses aquí, pero no creo que la pésima atención médica sea una buena cosa, que la pésima educación sea una buena cosa... Así que si podemos canalizar recursos hacia estas comunidades para mejorar los servicios, imagine donde podrían estar dentro de cinco o diez años. Aun así, pueden seguir pescando en las lagunas, pero tendrían cosas básicas, como electricidad sin interrupciones, como transporte, como escuelas... Puede sonar muy idealista, pero eso es en realidad lo que estamos tratando de hacer. Y ahora verse enfrentado a esta violencia y con personas que están prácticamente mintiendo sobre lo que estamos tratando de lograr...”

Se fue callando, la resistencia contra él y sus inversionistas los tenían ya cansados. Le preguntamos que cuanta paciencia les quedaba y nos respondió con gravedad “no mucha”. Momentos después concluyó diciendo,

“me resulta frustrante y entristece, y la consecuencia es que el grupo inversionista que represento . . . están sentados en sus oficinas y pueden poner su dinero aquí, pueden poner su dinero allí y sólo van a decirse a sí mismos: ¿Por qué? Yo no necesito estos problemas. No estoy realmente en el negocio de salvar al mundo, yo estoy en el negocio de ganar dinero para mis fiduciarios, y tengo que hacerlo a bajo riesgo.”

Minutos después, la policía nos trajo más malas noticias: no había manera de que Chapman entrara ese día a Álvaro Obregón. Como se había señalado, era demasiado riesgoso. La policía estatal estaba tratando a la resistencia obregoniense con mucha precaución. Aún estaban frescos los recuerdos durante la fiesta del Día de los Muertos de noviembre cuando Mareña y la policía habían puesto a prueba por última vez el bloqueo en Álvaro Obregón. Varios manifestantes fueron detenidos y llevados a Juchitán y a otros los habían “controlado” con gas pimienta, por lo que el bloqueo se rompió temporalmente, permitiendo a los trabajadores de la empresa acceder a la barra de arena y comenzar los trabajos topográficos y de remoción de vegetación. Pero sólo unas horas más tarde, una multitud mucho mayor de varios cientos de obregonenses llegaron a echar a la policía y a la compañía, volcando camiones y tomando como rehenes a la maquinaria de construcción. Llegamos en las postrimerías del evento, encontrando a la oposición más galvanizada que nunca. Uno de los líderes nos dijo, machete al cinto, “Si ellos quieren ver sangre, aquí estamos, estamos listos.”

Cuando terminábamos nuestra improvisada entrevista con Chapman, dos relucientes camionetas blancas llegaron al lugar con otros representantes de la empresa y el gobierno estatal a recogerlo y nos separamos en una encrucijada que parecía diseñada por Hollywood como un símbolo del impasse en el cual se encuentra sumido el desarrollo de la energía eólica en Oaxaca.

Una antropología del fracaso

Al momento de realizar la presente investigación, la construcción del parque Mareña aún no había comenzado. De hecho, parece cada vez más probable que nunca se dé y que el proyecto fracase, todo esto a pesar del fuerte apoyo de todos los niveles del gobierno mexicano, el generoso financiamiento del Banco Interamericano de Desarrollo, la nueva política nacional de regímenes favorables al desarrollo de la energía privada transnacional y energías renovables, la cobertura de los medios de comunicación casi uniformemente positiva en la prensa nacional y regional, y un consorcio de poderosos inversionistas internacionales.³

La unión entre la fuerte campaña⁴ mexicana de desarrollo de energías renovables, sus altas tarifas de electricidad, y los recursos eólicos de talla mundial en el Istmo parecía ser algo muy benéfico para todas las partes. En cuestión de menos de una década, más de una docena de parques eólicos han sido integrados a la red en el Istmo, y de acuerdo con expertos de la industria, éste es el desarrollo más ambicioso de energía eólica en todo el mundo. Los inversionistas siguen acudiendo a la región, mientras que los defensores de la energía renovable en todo el mundo han elogiado el desarrollo de la energía eólica de Oaxaca por su contribución positiva al cambio climático. El proyecto Mareña por sí solo podría reemplazar hasta 879.000 toneladas de dióxido de carbono al año.

En este artículo tratamos de explicar cómo un proyecto ecológicamente oportuno y con un apoyo tan amplio como Mareña llega a fracasar. Como es de imaginar, los vectores implicados en este fracaso son muy complejos, e involucran fuerzas, relaciones e instituciones nuevas y antiguas. Para permanecer fieles a la complejidad del caso, en lugar de un argumento simplista que da cuenta de una sola causalidad decisiva, exploramos un conjunto de diferentes aspectos que ayudan a iluminar los desafíos que enfrentan programas de transición energética, especialmente en aquellas partes del mundo como el istmo de Tehuantepec que siempre han sido marginados o abandonados por sus Estados rectores. Por consiguiente, este artículo contribuye a la importancia de la realización de estudios etnográficos y teóricos en cómo la dependencia hacia los hidrocarburos genera las condiciones para el poder político (McNeish and Logan 2012; Mitchell 2011), de la misma manera que, las grandes teorías sobre cambio climático, ecología y transformaciones ambientales en el Antropoceno (Chakrabarty 2009; Howe 2014; Morton 2013).

Por supuesto, no es ningún secreto que los grandes proyectos de desarrollo energético son casi siempre políticamente complicados, especialmente cuando las necesidades de energía eléctrica de gobiernos e industrias transnacionales son percibidas como una amenaza a los intereses locales. Recientes estudios antropológicos han puesto de relieve la relación compleja y a menudo conflictiva entre los proyectos energéticos liderados por el estado y la industria y los pueblos indígenas, especialmente en materia de derechos a la tierra y el uso de los recursos (ver por ejemplo, Colombi 2012; Smith and Frehner 2010; Turner and Fajans-Turner 2006; Westman 2006). México no ha sido la excepción a los conflictos que rodean los distintos esquemas de modernización relacionados con la energía, especialmente en las áreas de minería (Liffman 2012) y la extracción de petróleo (Breglia 2013). Hasta la década de 1980, México tenía la mayor población de desplazados por proyectos de irrigación y energía hidroeléctrica del mundo (Robinson 1999).

Sin embargo, el Istmo también tiene una larga historia de resistencia política y cultural a la hegemonía de las élites del Valle de Oaxaca y a las propuestas

nacionalistas y tentáculos de la Ciudad de México. Son pocas las historias sobre el Istmo, formales o informales, que no invocan y reinscriben de alguna manera una tradición istmeña de lucha contra un poder externo (Campbell et al. 1993). Las narrativas a menudo comienzan antes de la conquista española, con los istmeños representados como los últimos verdaderos zapotecas después de que los aztecas convirtieron a los zapotecas del norte en sus súbditos, asimilándolos cultural y lingüísticamente. Y entonces le recuerdan a uno las revueltas en el siglo XIX, de la manera como el héroe nacional y oaxaqueño Benito Juárez nunca logró quebrar la voluntad de Juchitán a pesar de que la mandó a quemar. Igualmente, se sabe que los juchitecos también lucharon contra la invasión francesa de México y ayudaron a asegurar la victoria de la Revolución Mexicana. Pero cuando la revolución se volvió corrupta, los istmeños se alzaron nuevamente, ayudando con su movimiento campesino y estudiantil de la COCEI (Coalición Obrera, Campesina, Estudiantil del Istmo) a acelerar la disolución del poder del PRI (Partido Revolucionario Institucional) en México. En todas estas historias, el Istmo se identifica a menudo como el lugar donde los poderes soberanos del Estado de Oaxaca y del gobierno nacional de México tienen su límite, como en el caso de Álvaro Obregón. Es un lugar al cual la policía no se atreve a entrar.

Una historia local de resistencia política a la gobernabilidad nacional y estatal en la región seguramente explica, en parte, el impasse sufrido por Mareña. Pero la resistencia también se debe a razones completamente contemporáneas, resaltando así las profundas tensiones y paradojas del modelo dominante de desarrollo a nivel mundial para la energía renovable. Al igual que en otras partes, el neoliberalismo, las políticas de mercado, y las empresas se proclaman como las soluciones más eficaces y “racionales” para el cambio climático antropogénico. Los proyectos de energía renovable a gran escala tales como los parques eólicos requieren de grandes capitales y por lo tanto están fuertemente ligados al capitalismo financiero, con cuantiosas cantidades de ganancia para los accionistas. A pesar de que los proyectos de energía verde por lo general hablan el lenguaje de la sostenibilidad ambiental, éstos son confrontados por el imperativo de crecimiento y “salud” económica de los modelos dominantes. Las comunidades, y quizás especialmente las comunidades indígenas, a menudo ven cómo sus propios intereses entran en conflicto con el crecimiento y afán de lucro de los Estados y sus socios corporativos transnacionales, interesados por su parte en convertir recursos como tierra, agua, y viento en “megaproyectos” de energía renovable.

Bajo la tenue luz de un sol negro

El desarrollo de la energía eólica de Oaxaca debe ser entendido no sólo como una respuesta al cambio climático, sino también a la vulnerabilidad del petroestado mexicano. A pesar de que los temores del pico petrolero se han disipado en

muchos países debido al auge en la extracción de petróleo y gas de esquistos, en México estas preocupaciones siguen siendo fuertes y están empíricamente fundamentadas. La producción de crudo pesado mexicano cayó 46% de 2004 a 2012.⁵ Con su megacampo petrolero Cantarell ya secándose y la creencia generalizada que el monopolio estatal de Petróleos de México (PEMEX) carece de la experiencia y los recursos para desarrollar con eficacia los recursos de hidrocarburos en aguas profundas, el petroestado mexicano se encuentra ante su propia encrucijada. En los últimos años, PEMEX ha suministrado hasta el 40% del presupuesto operativo del Gobierno Federal de México, lo que significa que todo el estado mexicano depende críticamente de los ingresos procedentes de las ventas de petróleo. La caída en la producción de crudo ha sido difuminada en cierta medida por el correspondiente aumento en los precios internacionales del petróleo, lo que ha permitido a PEMEX mantener altos ingresos. Sin embargo, se podría decir que el actual modelo financiero para el Estado mexicano está a tan sólo un ciclo de contracción económica del desastre. El empuje del Presidente Felipe Calderón para desarrollar agresivamente los recursos energéticos renovables fue formulado en este contexto. Como nos explicó un funcionario de la Secretaría de Medio Ambiente de México, “tenemos que diversificar las fuentes de nuestra producción de electricidad. Los hidrocarburos que no utilizamos para el propio consumo energético son hidrocarburos que podemos vender a un buen precio”. Como algunos antropólogos del petróleo han observado en otros contextos, la combinación de la dependencia social sobre los recursos de hidrocarburos y las crecientes dificultades en la extracción de recursos y su impacto sobre el medio ambiente están generando efectos culturales y políticos cada vez más intensos y a veces impredecibles en todo el mundo (Behrends et al. 2011; McNeish and Logan 2012).

Bajo la tenue luz de lo que Reza Negarestani (2008) ha llamado “el sol negro” del petróleo, se presentan nuevos modelos energético-políticos que están tomando forma en los petroestados para apoyar el modelo de crecimiento dominante (Boyer 2014; Mitchell 2011). En México, el interés en el desarrollo de los recursos eólicos del Istmo de Tehuantepec se remonta a principios de 1990. Sin embargo, fue sólo durante la presidencia de Calderón que comenzó una campaña seria con el fin de desarrollar energías renovables. Los elementos esenciales de esta campaña fueron la nueva legislación y un marco regulatorio favorable a las alianzas público-privadas para el desarrollo de la energía renovable. El sector de la energía eólica se disparó, pasando de apenas dos parques productores de 84.9 megavatios en 2008 a quince parques que producen 1.331 gigavatios a finales de 2012 (un aumento del 1467%, que ha convertido a México en el segundo productor de energía eólica en América Latina después de Brasil). El esquema de desarrollo dominante ha sido el de autoabastecimiento, en el que un promotor privado de energía eólica genera contratos de producción de energía para una amplia cartera de clientes industriales (los ejemplos incluyen CEMEX, Wal-Mart, y Bimbo) durante un período

de varios años o décadas. Estos esquemas se ven típicamente como situaciones en las que todos ganan: el gobierno, los desarrolladores y la industria. De esta manera, las empresas pueden fijar precios de energía inferiores a los del mercado por un largo plazo, disfrutar de los beneficios financieros de bonos de carbono (créditos por reducción de emisiones), y garantizar el suministro de energía que necesitan. Los promotores pueden acceder a esquemas de financiamiento para proyectos “verdes” a través de organizaciones como el Banco Interamericano de Desarrollo y el Mecanismo de Desarrollo Limpio (MDL) de la ONU. Los estados se benefician del desarrollo de infraestructura y los multiplicadores económicos sin tener que invertir ellos mismos. También es usual que las comunidades sean presentadas como ganadoras en el desarrollo del autoabastecimiento puesto que frecuentemente reciben ingresos sobre arriendos o pagos por el uso de la tierra y de los convenios de usufructo suscritos.

Pero muchos Istmeños han llegado a tener dudas acerca de los beneficios del autoabastecimiento a través del desarrollo eólico (Nahmad Sittón et al. 2011). Algunos han llegado a exigir una indemnización por el uso de la tierra más allá de los alquileres, otros afirman haber sido engañados o presionados a firmar contratos por agentes del gobierno o de los promotores, y algunos niegan por completo la validez del megaproyecto de desarrollo en su conjunto. El proyecto Mareña ha contribuido a perfeccionar e intensificar la resistencia al paradigma actual de desarrollo eólico de México por varias razones.

En primer lugar, el proyecto es visto por sus críticos como la personificación de una falta general de transparencia en el proceso (Lomnitz 2000).⁶ Lo que ahora se conoce como el proyecto Renovables Mareña ha cambiado de nombre y forma varias veces desde que se inició en 2003. La empresa energética española, denominada Grupo Preneal, que había firmado contratos de exploración y conseguido los permisos gubernamentales vendió los derechos del proyecto (que en ese momento eran dos proyectos separados) por 89 millones de dólares a FEMSA, la mayor compañía de bebidas de América Latina y Macquarie Group, el mayor banco de inversión de Australia. Estas empresas rápidamente fusionaron los dos proyectos y vendieron parte de su participación a Mitsubishi Corporation y al fondo de pensiones holandés PGGM, firmando a su vez un acuerdo de compra de energía con FEMSA-Heineken por 20 años. Poco o nada de esta información fue comunicada directamente a las comunidades donde se instalaría el parque.

La actividad especulativa también fue bastante común en los primeros días del “boom eólico” oaxaqueño. Es difícil reconstruir con precisión la política que se gestó durante el apartado de tierras. Pero hay evidencia de que algún tipo de organización fue permitida por el gobierno del estado de Oaxaca en la que se les asignaron derechos exclusivos de negociación a los promotores eólicos por las parcelas de tierra más ubicadas en el núcleo de la zona de viento. [Ver figura 1]. Muchas de estas parcelas fueron revendidas rápidamente para obtener

utilidades, sin informar a las comunidades afectadas. Dicha irregularidad dejó una lamentable herencia puesto que a las comunidades nunca se les permitió recibir ofertas competitivas de los diferentes promotores, los cuales establecieron a su vez tasas de remuneración a niveles muy bajos en comparación a los estándares internacionales. Además, los especuladores, a sabiendas de que no debían estar involucrados en estos proyectos hasta su fase de operación, parecen haber tomado con cierta frecuencia atajos en lo que se refiere a relaciones comunitarias con muchos istmeños. Ello provocó que las comunidades se quejasen más adelante de no haber recibido suficiente información o de haber sido engañados en cuanto a los beneficios que traería el proyecto.⁷ En el caso Mareña, un juez federal en Salina Cruz emitió una acción judicial de amparo en diciembre de 2012 deteniendo los avances en el proyecto del parque. El fin de tal acción fue el poder seguir investigando acusaciones realizadas por la oposición sobre la expropiación de tierras comunales sin que hubiera el “derecho de consulta.”

Una segunda crítica hecha con frecuencia a Mareña es que ha buscado, como muchos otros promotores eólicos, hacer avanzar su proyecto a través de la manipulación de las autoridades locales en lugar de generar proyectos que busquen crear consenso con toda la comunidad.⁸ La empresa niega fervientemente estas afirmaciones. Pero los críticos sostienen que los contratos de exploración y los derechos de uso del suelo fueron facilitados por los sobornos pagados a los presidentes municipales o a los comisariados ejidales, en efectivo o a través de la entrega de camionetas. Incluso cuando estas autoridades no se identifican como directamente implicadas en la malversación de fondos o recursos, se dice que sólo comparten estos recursos dentro de su propia red política, privatizando el uso de un bien social. Varios miembros de alto rango del gobierno del estado de Oaxaca señalaron a Mareña como la peor empresa que conocían en términos de estas prácticas. Un personaje describió a Mareña como un “claro ejemplo de cómo las cosas no se deben hacer.” Otro se preguntaba por qué razón Mareña pagaría “un montón de dinero” comprando autoridades locales que rotan cada tres años debido a las elecciones.

Esto apunta a una tercera área general de descontento: el reclamo de que el desarrollo eólico en el Istmo ha ido acentuando la desigualdad social, la polarización política y la violencia al quitarle prioridad a los beneficios sociales generales (por ejemplo, a las propias escuelas y servicios de salud mencionados por Chapman) y otorgarle en cambio beneficios a terratenientes y autoridades. Por ejemplo, a pesar de que cuenta con el respaldo de los partidos políticos más importantes en el Istmo, el desarrollo eólico está particularmente asociado con la red política del PRI. El PRI está a su vez estrechamente relacionado con los sindicatos de la construcción, estos últimos beneficiados directamente por los contratos del parque. A lo largo y ancho del istmo hemos oído que las autoridades políticas del PRI reclutan grupos de golpeadores procedentes de los sindicatos de la construcción

que son utilizados para intimidar, amenazar y en algunos casos, hasta atacar a aquellos que se resisten o se oponen a la construcción de parques eólicos. Esta dinámica ha sido particularmente evidente en San Dionisio del Mar, uno de los frentes del conflicto con Mareña. Aunque hay alguna evidencia de que el parque eólico contó con el apoyo bilateral en las primeras fases, a medida que el proyecto ha avanzado es claro que ha exacerbado la tensión política entre las redes del PRI y el PRD [Partido de la Revolución Democrática]. La fracción del PRD acusó al presidente municipal, quien pertenece al PRI, de firmar un acuerdo de usufructo con Mareña sin consultarlos y de acaparar los honorarios para él y sus aliados. Un estudiante de San Dionisio lo expuso sucintamente: “todo el pueblo está dividido. Básicamente, si usted es una familia priísta, está a favor del parque. Y si usted está en el PRD está en contra de él”.

Aunque muchas de las críticas en contra de Mareña son similares a las que todo desarrollo eólico en la región se ha enfrentado,⁹ es importante poner de relieve ciertas singularidades del proyecto que han contribuido a que sea un caso de importancia mayúscula. Cuando le preguntamos a una empleada de Mareña por qué pensaba que el proyecto había generado tanta controversia, ella dijo: “Bueno, por dos razones. Es un proyecto muy ambicioso y es el primero diseñado para ocupar las tierras comunales.” El proyecto es ambicioso, puesto que sería el primero en impactar varias comunidades de la zona (no sólo Álvaro Obregón y San Dionisio del Mar, sino también las muchas otras comunidades lagunares que tienen derechos tradicionales de acceso a la pesca cerca de la barra de arena). Del mismo modo, sería el primer parque en ocupar tierras administradas bajo el sistema de tenencia de tierras comunales, el cual requiere la aprobación de una mayoría de los comuneros para cualquier cambio en el uso de la tierra. Aunque otros proyectos de parques eólicos ocupan tierra que formalmente era de propiedad comunal, siempre han sido casos en los que la organización comunal había decaído y/o se había tomado la decisión comunitaria de privatizar la tierra, permitiendo a los propietarios actuales el derecho a contratar de forma individual con los promotores.

También queremos destacar una tercera singularidad, en este caso geográfica, del proyecto Mareña. Aparentemente, Mareña es el único proyecto de parque eólico en el mundo diseñado para ocupar una barra de arena, lo cual torna sus impactos ambientales especialmente difíciles de evaluar. Hay poca evidencia disponible para hacer frente a preguntas clave, por ejemplo, si acaso la presencia de las turbinas sería capaz de generar vibraciones y destellos de luz que asustasen y alejasen a los peces. Asimismo, el Informe de Gestión Ambiental y Social publicado por el Banco Interamericano de Desarrollo en noviembre de 2011, señaló la posibilidad a corto plazo de “desplazamiento económico” a causa de la interrupción de la pesca durante la fase de construcción del parque (2011:18-9) pero curiosamente no discutió los impactos a largo plazo de la presencia del parque en las poblaciones

locales de peces, a pesar de haber realizado un extenso análisis de los posibles efectos sobre los murciélagos, las tortugas marinas y las especies de liebre.

Resumiendo, en ciertos aspectos Mareña aumenta las dudas y críticas que ya han sido dirigidas hacia el desarrollo eólico de Oaxaca, incluyendo éstas la manipulación de autoridades, irregularidades/corrupción y la profundización de la desigualdad social.. En otros aspectos, el proyecto representa un hito al ser el primero en ser construido sobre tierra comunal, en impactar varias comunidades al mismo tiempo y en situarse cerca de comunidades de pescadores en vez de comunidades agrarias y ganaderas, algo no antes visto en la región. Tales factores se han combinado para crear un contexto en el cual los grupos de resistencia locales pudieran unificarse formando una red regional, llegando a ser casi trans-regional durante el período de nuestro trabajo de campo entre 2012 y 2013. Éste movimiento de resistencia “antieólica” en el Istmo de Tehuantepec ha demostrado ser, por mucho, la causa más inmediata del fracaso del proyecto Mareña. A continuación haremos un análisis más profundo de sus características e implicancias.

Capturar el medidor

De vuelta en la encrucijada entre las aspiraciones capitalistas verdes y las barricadas de Álvaro Obregón, llama la atención la gran cantidad de polvo que se levanta cuando una camioneta circula por la terracería. Es razón suficiente para envolver un pañuelo o una camiseta delgada alrededor de algunos o quizás todos los orificios respiratorios. Los hombres en Álvaro Obregón a menudo se visten de esta manera, con el torso desnudo y una camiseta deshilada cubriendo nariz y boca para protegerse del polvo. Tal vez la camiseta protectora tiene aún la impresión de la cara sonriente de algún candidato del pasado, a veces es una reliquia de algún concierto de rock, pero en todo caso, la tos crónica que se escucha por todo Álvaro hace parecer como si se tratara de una batalla perdida. Hoy, frente a la hacienda abandonada que la Resistencia ha apropiado como su lugar de reunión, las camisetas han sido convertidas por un grupo de jóvenes en máscaras con un propósito más simbólico, dándoles un toque iconoclasta. Al saltar de la parte trasera de una camioneta blanca, incluso las máscaras de camiseta no ocultan sus sonrisas. Acaban de regresar de un recorrido del sitio donde Mareña Renovables tiene su torre de pruebas, una estructura de metal delgada con una veleta de tres puntas que mide la calidad, duración y fuerza del viento. Los hombres enmascarados tienen algo en la mano, un premio. La multitud, que suma setenta más o menos, pronto se reúne alrededor de ellos, ansiosos por ver lo que es. Al pasar el botón de mano en mano con cuidado, el objeto finalmente se acercó lo suficiente para ver que era un instrumento medidor de algún tipo, configuración e indicadores en inglés y números. “Se cayó al suelo,” nos explicaron, “de la torre.” “¿Se cayó?”

preguntamos incrédulos. Sus sonrisas aumentaron un tanto, decidiendo que no valía la pena seguir mintiendo, “bueno, se cayó cuando echamos abajo la torre.”

Por mucho que el Proyecto Mareña cuente con un poderoso conjunto de aliados y todas las fuerzas del capital transnacional detrás de él, no cuenta con la aprobación de los hombres con máscaras de camiseta. La protesta contra el proyecto halla sus precedentes políticos en la evolución desde el movimiento COCEI hasta las primeras protestas antieólicas del Istmo y en las preocupaciones más generalizadas sobre megaproyectos en general (Gómez Martínez 2005). Los que están en la resistencia a menudo conectan sus afinidades políticas a estas historias, tal como ligan sus vínculos ideológicos con los neo-zapatistas del Ejército Zapatista de Liberación Nacional (EZLN) y el COCEI (incólume es sus orígenes). Pero la Resistencia también comparte afinidades con un conjunto más amplio de prácticas contemporáneas y protestas políticas contra el statu quo, desde los movimientos anti-globalización hasta con *Okupas*.

En la segunda mitad de este artículo, primero documentamos los antecedentes de la resistencia anti-Mareña centrándonos en sus genealogías políticas, así como su compromiso ideológico con los modelos colectivistas sin jerarquías que han logrado trascender con éxito las rivalidades étnicas y políticas. En segundo lugar, si bien la Resistencia utiliza ampliamente los ideales de una organización horizontal neo-indígena, también son bastante claros acerca de su oposición específica al parque Mareña como un megaproyecto. De hecho su capacidad para servir de catalizador para la resistencia a lo largo de la región se ha producido en parte debido a su crítica explícita en contra de las formas neoliberales de desarrollo y la intervención financiera externa. Por último, como se detalla a continuación, la Resistencia ha ganado adhesión, no porque se oponga a la energía renovable (lo cual no hacen), sino porque han ventilado preocupaciones acerca de las posibles consecuencias ambientales y sociales que pueden surgir como consecuencia de la construcción del parque. La Resistencia ha logrado codificar un conjunto de preocupaciones que van desde el desplazamiento y el potencial destructivo de los megaproyectos hasta las preocupaciones sobre la pérdida del patrimonio en las que la laguna, la pesca y nuestra tierra se alinean como práctica cotidiana y patrimonio regional. La resistencia colaborativa, que efectivamente ha detenido el proyecto Mareña, nos ha llevado a comprender que las medidas de mitigación del cambio climático han fomentado, como Mike Hulme ha predicho (Hulme 2009: xxvii), nuevas oportunidades para el surgimiento de la conciencia y el activismo ambiental. Ésta, sin embargo, no ha sido el tipo de respuesta orientada al medio ambiente que la empresa o el estado esperaban. Sostenemos pues que la integración de proyectos de mitigación del cambio climático con lógicas neoliberales de desarrollo provocan la reinención de distintas modalidades lateralistas, colaborativas, y horizontales de respuesta activista y resistencia. Si bien la transición hacia las energías renovables puede traer consigo un beneficio climatológico global altamente

ético, cuando tal pasaje contraviene las reivindicaciones locales de derechos, autonomía, y gestión ambiental, se generan por lo contrario las condiciones para el fracaso. Esto es precisamente lo que Mareña ha descubierto.

Rescatando la tierra y ensamblando las alternativas

La oficina de la Asamblea de los Pueblos Indígenas del Istmo de Tehuantepec en Defensa de la Tierra y el Territorio es fácil de identificar en las calles de Juchitán: es la que tiene dibujado un símbolo anti-eólico en su fachada. Cuando nos sentamos una tarde de domingo con dos de los fundadores de la Resistencia y otro par de oyentes atentos, era difícil no darse cuenta de nuestra íntima proximidad física en esta pequeña habitación decorada con imágenes de victorias pasadas y héroes que van desde el Ché hasta el Subcomandante Marcos Roberto P. comenzó la conversación y procedió a detallar una vasta narrativa histórica de la Resistencia a lo largo de más de una hora. Roberto es una de los voceros principales de la resistencia, sin embargo, no le gusta que le llamen un “líder”. Ésta es una designación que él asocia con formas políticas jerárquicas y vanguardistas; en definitiva, corruptas. Roberto es un maestro por vocación y por naturaleza, como quedó claro en su exposición de los acontecimientos históricos. La Resistencia contra Mareña, explicó, debe ser entendida a través de una genealogía más larga que se extiende a lo largo de muchas décadas y lugares. Según Roberto, la Resistencia no sólo estaba asociada a la política insurrecta del Istmo propia de los comienzos del movimiento COCEI, sino además a la represión del movimiento estudiantil en la Ciudad de México en el '68 y a un foco guerrillero en Chihuahua. Antes de eso, existía una vinculación con la rebelión de los zapatistas chiapanecos consecuente al Tratado de Libre Comercio de América del Norte (TLCAN), a la lucha contra el desarrollo de un aeropuerto en Atenco a principios de la década del 2000, a la huelga de los maestros y la violencia de Estado en la capital de Oaxaca en 2006 guiados por APPO (Asamblea Popular de los Pueblos de Oaxaca) y al maoísmo en sí con las insurgencias campesinas agrarias y desafíos al imperialismo del primer mundo. La cartografía expuesta por Roberto, cuyo propósito era proveer un mapa sobre la revolución y la respuesta a la dominación extranjera, la hegemonía urbana, y las rebeliones contra el desarrollo neoliberal, nos llevó a los orígenes de la resistencia anti eólica en 2005. Este fue un movimiento fundado, insistió Roberto, por “puros maestros”. Nos contó que entonces él y otros resistentes habían protestado contra la instalación del parque eólico de La Venta en la década de 1990, y el propio subcomandante Marcos se presentó y habló en solidaridad con ellos. Como Roberto explicó La Asamblea puede señalar victorias significativas, incluyendo la anulación de contratos en toda la región y el “rescate” de 1200 hectáreas de tierra destinadas a ser transformadas en parques eólicos.

Roberto da crédito a quien se lo merece, cita fielmente al representar el linaje sublevado de la Resistencia. Originalmente, el brazo juchiteco de la resistencia operó bajo el nombre Frente de Pueblos en Defensa de la Tierra y del Territorio. Sin embargo, la designación “frente”, explicó Roberto, insistía en un modelo político que esperaban superar. La idea de un frente apunta hacia el vanguardismo y está excesivamente cargada con el ideal de un liderazgo jerárquico y el peso de una etimología militar. Por consenso de los involucrados, se decidió que el título de “asamblea” capturaba más precisamente sus valores. La Asamblea evoca, como dijo Roberto, “un pensamiento más indígena que es la comunidad”. Con un orden igualitario y un rechazo al liderazgo y a la toma de decisiones jerárquicas, la Resistencia ha procedido con su plataforma: ahí ya de manera concreta definimos la línea que hasta ahorita conservamos, que es la defensa jurídica, la acción directa, la movilización, la información permanente a las comunidades y el fundar las asambleas, así fue . . . así iniciamos y así conservamos, la forma de esa lucha.

Indica que El continua que, “Sí, hemos cruzado todo el proceso histórico de la izquierda en México para poder ofrecer una alternativa”. El espíritu comunitario de liderazgo lateralista y consenso colectivo enfatizado tanto por el nombre de asamblea como por el espíritu, y asimismo, por el rechazo de los líderes y la inexistencia de un grupo de “seguidores”.

La dedicación de la Resistencia al modelo de asamblea colectiva también se manifiesta en las obras de la Resistencia, que han dado pie a la multiplicación de Asambleas Generales por todo el Istmo, particularmente en las ciudades y pueblos que apoyan la iniciativa anti-Mareña. Estas formas de trabajo de la protesta y del proceso autonomista hacen un llamado a los procesos de toma de decisiones colectivos, renovando los usos y costumbres y operacionalizando un sistema social de un modo paralelo a la gobernanza estatal.¹⁰ Los usos y costumbres generalmente han sido considerados como un contrapeso a la marginación de los pueblos indígenas en los proyectos nacionales de élite en todo México, aun a pesar de su rediseño al servicio de la resistencia anti-Mareña.¹¹ Ésta última ha evocado ideales neoindígenas similares en sus formas de organización, así como discursivamente en sus materiales impresos y pronunciamientos (Jackson and Warren 2005). Elogiar el conocimiento indígena y evocar la administración autóctona de la tierra (y del mar) ha sido una lógica inmediata y poderosa para la Resistencia, incluso aunque el grupo corra el riesgo de ser reducida a interpretaciones esencialistas (Dove 2006:195–198; Tsing 2003). Sin embargo, las afirmaciones sobre la sabiduría ambiental, los derechos humanos indígenas y la soberanía se han adaptado a una alianza muy específica y algo novedosa entre las comunidades binnizá e ikojts.

La adhesión ideológica del neoindigenismo se basa en milenios de residencia de los binnizá y ikojts en la región, pero la Resistencia ha resignificado una anécdota ya osificada sobre las interacciones interétnicas entre estas dos

comunidades (Gómez Martínez 2005). Para muchas personas con las que hablamos, desafiar la construcción del parque eólico implica asumir que binnizá e ikojts han colaborado juntos “por primera vez en la historia” y que “se han unido”. Los movimientos pan-indígenas, el neoindigenismo y el activismo colaborativo tienen precedente en México (Jung 2003; Stephen 2002), pero la solidaridad interétnica entre estas dos comunidades se entiende como un avance singular y crítico en la rectificación de la explotación empresarial y del estado. La alianza entre las comunidades ikojts y binnizá, como nos lo indicaron varias personas en la Resistencia, todavía se siente muy nueva. Su única lengua común es la de los colonizadores, pero frente la obligación de coordinar el trabajo en este idioma la Resistencia ha creado un *ethos* colectivo de los derechos indígenas frente a las incursiones de los proyectos de energía renovable. Un comunero de San Dionisio, por ejemplo, relató que autonomía para los pueblos originarios y su capacidad para seguir ocupando las tierras donde han residido, tienen un cierto poder basado en la verdad y el derecho.

“[H]oy en San Dionisio sigue la lucha; así como iniciaron nuestros héroes que se solidarizan y se unieron para buscar la Autonomía de México aquí también, la autonomía de los pueblos originarios de los pueblos indígenas, porque somos los verdaderos dueños de las tierras, de los territorios, de los mares”.

La Resistencia ha fomentado y promovido colaboraciones que atraviesan las divisiones históricas entre las poblaciones indígenas locales, mientras que también han logrado navegar las rivalidades entre los partidos políticos. Dada la fuerza histórica y el chauvinismo de los partidos políticos en México, no es poca cosa para los *priistas* compartir la comida con el PRD y el COCEI. Dado que los partidos políticos, tanto de izquierda como de derecha, en su mayor parte han estado a favor del proyecto Mareña, estos partidos han caído en desgracia frente a los istmeños que forman parte de la Resistencia. En su pugna por la autonomía la resistencia anti-Mareña ha cuestionado profundamente la validez intrínseca de los partidos políticos como entidades democráticas legítimas. Antonio L., uno de los fundadores de la Asamblea y una de las voces principales en la Resistencia, hablando ante una multitud reunida en Álvaro Obregón, afirmó “Hoy es una declaración de guerra contra los partidos políticos, contra el Gobierno, contra Mareña Renovables y todo aquel que se alía o tiene nexos con Renovables Mareña”. Antonio y otros miembros de la Resistencia han declarado que no se le permitirá a ningún candidato de un partido político postularse para un cargo en las próximas elecciones municipales en Álvaro. En junio de 2013 La Resistencia sustentaron esta declaración al prohibir la instalación de las casillas de votación. Los partidos y el parque se habían convertido en una amenaza combinada para los de la Resistencia y por lo tanto se les dio una directiva y una dirección: ¡fuera!.

Los peces y el neoliberalismo

En enero de 2012, algunos comuneros de San Dionisio se reunieron para bloquear la construcción del parque Mareña bajo una nueva denominación: “los inconformes”. Ya en el comienzo de abril, los inconformes habían iniciado una ocupación permanente de la cabecera municipal del pueblo. Aliados con fuerzas de Álvaro Obregón, Juchitán y otras comunidades, así como con otras organizaciones de derechos indígenas en la región como Unión de Comunidades Indígenas de la Zona Norte del Istmo, los resistentes hicieron sonar y resonar la consigna de “Fuera Mareña” de manera cada vez más fuerte en todo el Istmo.

En el discurso de la Resistencia, la posibilidad de un “despojo de Nuestra Tierra” ha sido un grito de guerra y un recuerdo ominoso de la historia colonial. También funciona como una referencia a los contratos de 30 años (o más) que los pequeños propietarios, ejidatarios y comuneros firmaron con las empresas para la ubicación de turbinas y construcción de carreteras. La tierra, que en gran parte fue dotada con fines de uso colectivo por parte del gobierno federal a lo largo del siglo pasado, tiene un poderoso significado patrimonial, así como un papel económico en la vida de muchos istmeños. Mientras que la tierra ha sido una de las principales preocupaciones en relación con los parques eólicos en todo el Istmo, el agua, y más específicamente aquello que habita en el agua y aquellos que subsisten del agua, ha sido un tema fundamental para quienes se resisten al proyecto Mareña. De hecho, ellos han sido capaces de “conjurar a lo no humano”, como fuerzas poderosas en estas luchas políticas (De la Cadena 2010). Los pescadores con los que hablamos en San Dionisio y en todo el Istmo estaban convencidos de que sus vidas y su modo de vida se deteriorarían de manera irrevocable por el desarrollo del parque eólico. Los efectos que el proyecto Mareña podría tener sobre la población de peces o camarones no son del todo claros, dado que el estudio de impacto ambiental no evalúa este aspecto de las condiciones regionales y la ubicación particular del proyecto sobre la barra de arena. Sin embargo, en parte debido a esta ausencia, o a la negativa para evaluar este aspecto, abundan los temores. Ibrahim C., quien surgió como una de las voces principales entre los inconformes en San Dionisio, resumió así los sentimientos de muchos en la región.

“La riqueza de nuestro mar, de nuestra gente, nuestra fuente de trabajo y de alimento (...) si se llega a meter el proyecto eólico seguramente vamos a estar comprando productos que vienen de otras partes lo cual va a encarecer más nuestra alimentación (...) que de alguna manera San Dionisio se convierta en un pueblo valiente y defienda sus tierras y que le enseñe a los extranjeros que nuestras tierras tienen que ser respetadas.

Es revelador que Ibrahim comience sus observaciones con las “riquezas de nuestro mar”, pues con el paso del tiempo, y a medida que la resistencia al proyecto creció y se extendió, empezamos a oír cada vez más la expresión “el mar es nuestro

banco". Este era un giro astuto sobre la evidente presencia, o la imposición, de los intereses bancarios y el capital multinacional que apoyaron el proyecto Mareña. Sin embargo, "el mar es nuestro banco" también es una afirmación sobre la realidad. Según los informes de prensa, 5000 familias indígenas oaxaqueñas dependen de la pesca para subsistir. Si bien es posible que el número de pescadores de San Dionisio que viven exclusivamente de la pesca probablemente no sea mayor a unas cuantas docenas, muchos, si no la mayoría de la población, dependen de la pesca como un tipo de seguro de subsistencia en condiciones de inseguridad económica y alimentaria; si todo lo demás falla, el mar está ahí y las familia pueden alimentarse. Por lo tanto, no es por ingenuidad que Ibrahim resalte que una de las consecuencias del daño a la pesca sería un aumento de la dependencia sobre alimentos que se intercambian mercantilmente y una mayor inserción en la cadena de productos importados y las transacciones de dinero por comida.

Muchos activistas, incluido Ibrahim, tenían claro que la oposición al parque eólico no era una negación de sus capacidades "limpias" y las aspiraciones de la energía renovable. Más bien, querían hacer una advertencia y protestar en contra de la prioridad dada a los modelos de crecimiento basados en el mercado que se extienden por todas las dimensiones de la vida cotidiana en México. Berta C., una de las fundadoras de la Asamblea Juchiteca, subrayó que no es la energía eólica lo que está en juego, sino más bien los peligros específicos asociados a la inversión masiva de capital extranjero en la región que los parques conllevarían. Estos riesgos se presentan en forma de sobornos, manipulación, y desplazamiento. Pero también son las grandes sumas de dinero las que amenazan y denigran de la soberanía local puesto que cada dólar, euro o peso causa como Berta explicó "rupturas en el tejido social." Si bien podría haber algún paralelo entre las voces de los pescadores de San Dionisio o las de aquellas personas presentes en las barricadas en Álvaro Obregón y el argumento de "no en mi patio trasero" (en inglés, *not in my back yard*) omnipresente en lugares como los Estados Unidos y Europa contra los daños paisajistas, ambos son cualitativamente diferentes. Estas últimas suenan banales en comparación con las súplicas de los pescadores de subsistencia que abogan por su capacidad para sobrevivir. Esto es especialmente evidente cuando ellos articulan y presentan las múltiples vías en las que la neoliberalización ha cambiado y puesto en peligro de extinción sus formas de vida y sustento diario.

Molinos de viento caídos

Andrew Chapman, con el frente de su gorra bordada con un pescado dando la pelea y el joven cuyo rostro está encubierto por una máscara improvisada y que lleva un instrumento de medición robado en la mano, han ocupado muy diferentes lugares metafóricos y físicos. Hace tiempo ya que Chapman ha regresado a Nueva York y es probable que el joven con el instrumento de medición esté ahora intercambiando

historias con sus amigos o en el agua jalando redes de pesca llenas de camarones bajo la luz de la luna. No hay ninguna razón para plantear paralelos engañosos entre las vidas tan diferentes de cada uno de estos hombres y los mundos económicos, sociales y culturales que representan. Sin embargo, es justo decir que ambos tienen algunas expectativas compartidas y esperanzas paralelas sobre lo que les espera en el futuro, si hubiera alguna forma de encontrarse más adelante en alguna encrucijada metafórica o real. Cada uno de ellos puede asumir una posición ética y virtuosa: el norteamericano trae desarrollo, abre mercados para el uso de energías renovables, desacelera el calentamiento global y produce ganancias para los inversionistas comprometidos con la sostenibilidad mientras que el istmeño lucha por su futuro en la laguna (y el porvenir de sus hijos), desafía a los invasores extranjeros y el capital de transición energética, y busca garantizar la “soberanía alimentaria” para él, su familia y la región.

Los distintos aspectos que engloba un megaproyecto, bien sea “limpio” o “sucio”, invariablemente constituyen un gran motivo de preocupación debido a que consumen vastas extensiones de espacio, ya sea éste terrestre o marítimo (Liffman 2012; Turner and Fajans-Turner 2006). Debido al impulso climatológico que los subyace, los megaproyectos de producción de energía limpia parecen tener una ventaja ética sobre otras mega-empresas extractivas, tales como la minería o el petróleo. Cualesquiera que sean los beneficios de la energía renovable en comparación con sus primos de carbono, la llegada de capital extranjero parece borrar gran parte de este potencial ambiental y social. En este sentido el proyecto Mareña, llevado al fracaso por intervención de la resistencia, revela más que simplemente otro deseo de desarrollo que salió mal. Más bien, pone de relieve las tensiones éticas que posicionan la salud económica y ambiental locales contra la salud económica y ambiental global (Howe 2014). El caso Mareña es una ecuación económico-política de escala y compensación, pero también constituye un desafío a la lógica de la transición energética. Ello influye en la manera como se asumirán los “beneficios” y “compensaciones” ahora y en el futuro, a nivel local y transnacional. Nadie en Álvaro Obregón, San Dionisio, o cualquiera de las otras comunidades que forman parte de la resistencia diría que se oponen a remediar el cambio climático o, en los términos más amplios, a hacer del mundo y su ambiente circundante algo más humano y más hospitalario. Sin embargo, pedirles que sacrifiquen sus tierras y zonas de pesca a favor de unos mandatos de mitigación climática diseñados para beneficiar a inversionistas y desarrolladores de sitios tan lejanos como Kyoto, Durban y Copenhague es una propuesta que no encaja bien en el Istmo. En un lugar que ha impedido con éxito la influencia y el control foráneos durante varios siglos, el desarrollo impulsado por capital privado extranjero que beneficia los intereses de consumidores corporativos parece una tontería. Pedirle a los istmeños que incurran en un mayor nivel de precariedad a favor de la desaceleración del calentamiento global y un “beneficio global” es quizás un argumento

más atractivo en términos morales, pero tampoco ha logrado ganar muchos adeptos. El proyecto Mareña ha demostrado ser un referente sobre las posibilidades que tiene la energía renovable en México, pero no es un caso único. Se trata de un modelo de desarrollo desarticulado y de sostenibilidad fallida que se correlaciona con otros proyectos alrededor del mundo que han tomado como única posibilidad “racional” modelos basados en el mercado para resolver las amenazas del Antropógeno. En cambio, los sueños autonomistas están creciendo en el Istmo en aquellos lugares donde el parque eólico hubiera sido construido.

Al criticar el desarrollo capitalista y crear modelos políticos horizontales y colectivos, las acciones anti-Mareña comparten una afinidad con los levantamientos y protestas de la plaza Tahrir de El Cairo hasta los del Parque Zuccotti de Nueva York. Tal como en aquellos casos, las redes horizontales funcionan en lugar de las jerarquías, la democracia consensuada reemplaza la dirección de arriba hacia abajo y se le da prioridad a la descentralización (Graeber 2002:70).¹² Como reacción a estos proyectos de neoliberalismo verde la Resistencia ha sido capaz de recapitular las raíces de los movimientos anti-globalización y las acciones directas que en opinión de muchos se originaron con el Ejército Zapatista de Liberación Nacional. Al igual que el neo-zapatismo surgido en la Selva Lacandona, las protestas contra la Organización Mundial del Comercio (OMC) en Seattle o contra el G-8 en Ginebra y el reciente movimiento Occupy, en el norte de África, América del Norte y Europa, la Resistencia ha rechazado los órdenes y procesos de decisión jerárquicos (Jung 2003; Muñoz Ramírez 2008; Razsa and Kurnick 2012; Stephen 2002). Se han hecho duras críticas a las políticas neoliberales y la manera en la que el capital financiero privado puede poner en peligro el modo de vida de la comunidad local y su bienestar. En este sentido, podríamos argumentar que los enérgicos movimientos de protesta en el Istmo son un “puesto de avanzada de la nueva oposición” (Marcos 2001). En palabras de David Graeber, la Resistencia se encuentra, al igual que otros modelos horizontales de acción política, lista “para desmentir al neoliberalismo y sus pretensiones de democratización” (Graeber 2002:68).

No obstante lo anterior, debemos hacer al menos dos distinciones importantes en relación a la respuesta istmeña al neoliberalismo verde. Se trata de rasgos que las diferencian de los movimientos Okupas, las acciones anti-globalización y los movimientos neo-anarquistas que han surgido en distintas partes del mundo. En primer lugar, está la incorporación explícita de un modelo colectivo neo-indígena muy específico y la aplicación de una ideología de Asamblea Comunal. En segundo lugar, y esto es quizás lo más importante, está el hecho de que la protesta en el Istmo no es una reacción ante una crisis financiera que enfrenta el 99% de la población mundial. A diferencia de movimientos como Okupa, la respuesta istmeña no se centra sobre el fracaso del capital global financiero sino que más bien es un comentario mordaz sobre su “éxito” al insinuarse a lo

largo de todo el Istmo. En lugar de bancos de Wall Street que supuestamente eran “demasiado grandes para fallar”, la Resistencia ha llamado la atención sobre los proyectos de desarrollo de energía limpia, que también parecieran con todo su patrocinio internacional y empresarial demasiado grandes para fracasar.¹² Sin embargo, a partir de este preciso momento, en este caso, han fracasado.

A pesar del peso de las aspiraciones de energía limpia de Mareña, la toma de carreteras y el emplazamiento de barricadas han puesto de manifiesto sus debilidades y defectos. En este sentido, el rechazo al proyecto Mareña no debe entenderse simplemente en términos de una decisión crucial sobre la manera en cómo deben proceder los proyectos de energía renovable en México. En lugar de ello, debe ser comprendida como una coyuntura de resistencias, emergentes desde norte y el sur, que revelan cómo es el desarrollo energético, quién se ha convertido en el objeto de disidencia.

Notes

¹Neoliberalism verde es un modelo que utiliza inversiones privadas, préstamos institucionales, y el involucramiento mínima del gobierno en el desarrollo de proyectos sostenibles y renovables.

²El presente artículo está basado en la colaboración e intercambio de datos y análisis entre los autores, cada uno de los cuales ha hecho una exhaustiva investigación de campo en Oaxaca sobre el desarrollo de los parques eololéctricos. Seguido por trabajo preliminar de investigación a partir de 2009 a 2011. Cymene Howe y Dominic Boyer realizaron su trabajo de campo gracias a la beca número 1127246 de la National Science Foundation, el cual se realizó en 12 meses entre 2012 y 2013. La investigación se hizo en varias comunidades del Istmo de Tehuantepec, así como, en la Ciudad de Oaxaca y Ciudad de México, la cual también incluyen entrevistas con representantes federales, regionales, y figuras políticas del Istmo, desarrolladores de parques eólicos, inversores internacionales, lugareños del Istmo, e investigadores académicos. Igualmente la investigación de la colaboradora Edith Barrera, se concentró primeramente en trabajo de gabinete desde 2009 hasta 2011 a la fecha. Su trabajo de investigación de campo comenzó desde 2010 a la fecha, contando con el financiamiento interno de la Universidad del Mar campus Huatulco. Su investigación abarca desde varias visitas de campo, hasta entrevistas a diferentes actores clave tanto de la región del Istmo de Tehuantepec, como autoridades locales, y estatales, y entrevistas a representantes de diferentes Organismos Internacionales promotores de los parques eololéctricos en América Latina. Actualmente la profesora Barrera continúa con la investigación sobre los diferentes impactos de los parques eololéctricos pero ampliando su campo de estudio hacia otros estados de México.

³Al momento de la publicación del presente artículo, el proyecto de Mareña Renovables ya se había reportado en la prensa local como un rotundo fracaso e igualmente, en otros medios de comunicación, la propia empresa había anunciado la cancelación del parque eololéctrico aunque ahora (verano 2015) la empresa ha transformado otra vez a una compañía nueva: Energía Eólica del Sur, aparentemente con el intento de reubicar el parque. Ver: <http://fundar.org.mx/wp-content/uploads/2015/03/Juchitan-observaciones-Anaya.pdf>. A la fecha los movimientos de resistencia anti-eólicos continúan pues sospechan que es solo cuestión de tiempo para que otra empresa intente la construcción de un parque eólico en Barra de Santa Teresa.

⁴Bajo la administración de Felipe Calderón (2006-2012), México avanzó enormemente tratando de convertirse en un líder mundial combatiendo el cambio climático a través de la *transición energética*.

⁵Ver: <http://www.eia.gov/todayinenergy/detail.cfm?id=11251>

⁶Lomnitz y sus colaboradores, han demostrado en varios estudios la falta de transparencia en varios ámbitos del poder político en México (2000).

⁷En una reciente vista a La Ventosa, un pueblo istmeño que ahora está rodeado de parques eólicos, nos sorprendió escuchar que a muchas personas les habían hecho creer que los parques eólicos les reducirían el costo de la electricidad.

⁸Si bien es cierto, no es exclusivo de Mareña Renovable identificar únicamente a los líderes ejidales, comunales o como en el caso de San Dioniso, al Agente. Otras empresas han seguido la norma, lejos de incluir un diálogo o consenso con la comunidad. En general, solo lo hacen en y con las Asambleas de los ejidatarios o comuneros.

⁹Es importante resaltar el apoyo que existe por parte de algunos lugareños a los parques eoloelectricos, especialmente en aquellos lugares donde el régimen de tierra es de propiedad privada y la fuerte presencia de un partido político determinado. No obstante, en una de las dos comunidades de nuestro estudio, descubrimos una significativa ambivalencia acerca de las experiencias y beneficios de los parques eólicos. Por ejemplo, en la Ventosa, si bien apoyan la construcción de éstos, algunos lugareños consideran que dichos parques no les ha traído ningún beneficio, al contrario, critican a aquellos propietarios de grandes extensiones de tierras pues son ellos quienes realmente se están beneficiando de los pagos de la renta de sus tierras.

¹⁰A partir de 1990, el estado de Oaxaca ha adoptado las reformas constitucionales y ha reconocido oficialmente como sistema político los usos y costumbres de los pueblos indígenas. Ver, David Recondo, *La Política del Gatopardo: Multiculturalismo y Democracia en Oaxaca* (2007) y Deborah Poole, "Los usos de la costumbre: Hacia una antropología jurídica del Estado neoliberal" (2006).

¹¹Si bien se entiende que los usos y costumbres son una herencia prehispánica, estos han sido modificados con el tiempo y han experimentado un resurgimiento en todo México (Carlsen 1999:2; Rubin 1998; Stephen 2002).

¹²Mientras que las protestas anti-eólicas se han enfocado en establecer lazos colectivos, horizontales y no jerarquizados, hemos notado que el contexto de dichas prácticas son antagónicas al que se ha practicado durante años en la región, sea con el patronazgo del PRI y recientemente en algunas regiones con el de la COCEI. En este sentido, de constituirse el llamado de la Resistencia hacia los valores comunes y asociaciones de uso y costumbres y del neo-zapatismo, sobre una base genuina, sin jerarquías con base en consensos, sería un parteaguas hacia las estructuras históricas políticas de la región.

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CONTESTED POWERS

THE POLITICS OF ENERGY AND DEVELOPMENT
IN LATIN AMERICA

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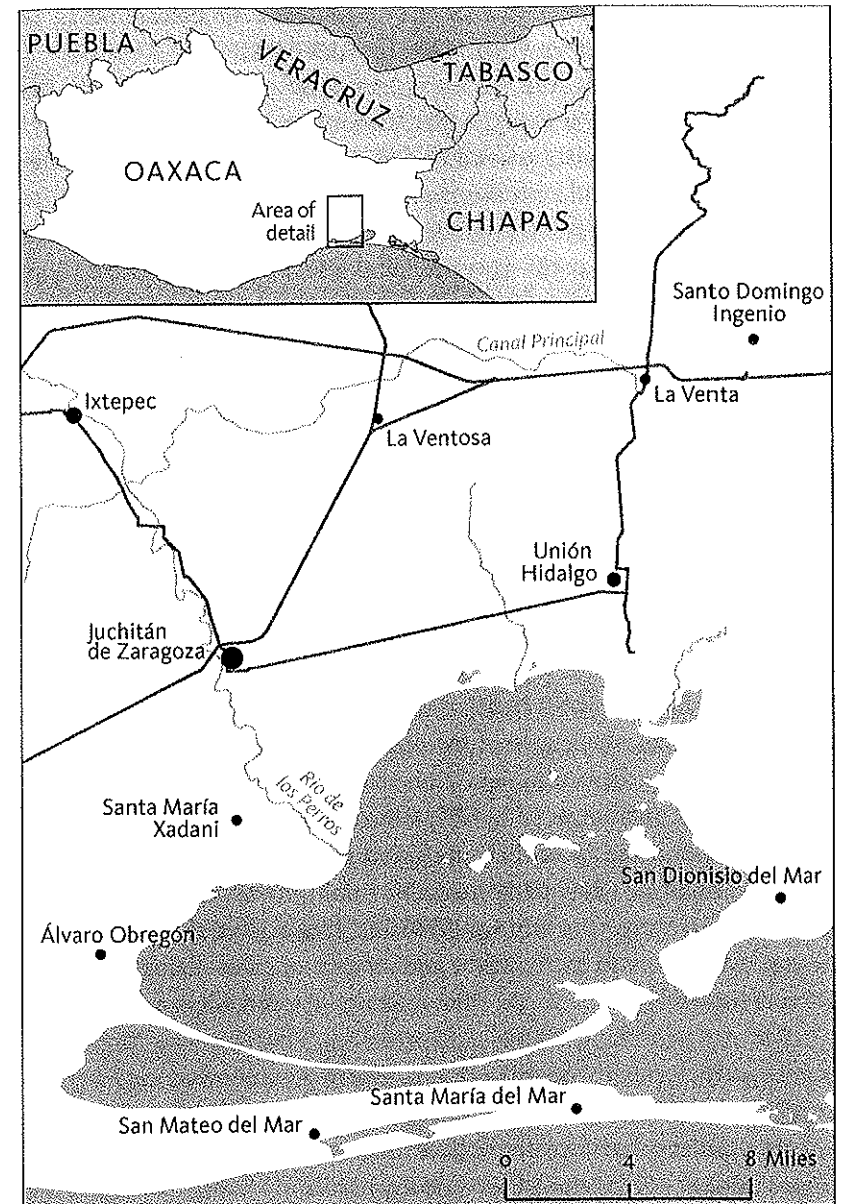
4 | WIND AT THE MARGINS OF THE STATE: AUTONOMY AND RENEWABLE ENERGY DEVELOPMENT IN SOUTHERN MEXICO

Cymene Howe, Dominic Boyer and Edith Barrera

Oaxacan wind power at a crossroads

On a windy day in February 2013, we encountered transnational green capitalism on the frontier of Mexican statecraft. This happened in the isthmus of Tehuantepec, in the town of Santa Rosa de Lima, where a state police checkpoint had been set up just before the road from Juchitán turns south-east towards Álvaro Obregón. ‘Checkpoint’ somewhat overstates the formality of the situation. There were two state police trucks idling by the side of the road, across the road from several weathered wooden canoes. The canoes and the gossamer of faded fishing nets near them announced to all passers-by that they had crossed into the fishing zone of the Laguna Superior. The police half-heartedly reviewed our papers after we asked Señor Tomás, our taxi driver for the day, to stop the car. A representative of the Oaxacan government had told us that morning that the situation in Álvaro was *muy tensa* (very tense). He said the police were reporting that trucks filled with armed men were driving around the village threatening violence. Señor Tomás, by contrast, said we had nothing to worry about. Driving through the verdant ranch land south of Juchitán, he explained how politics is always tied to money in the isthmus: ‘This is how it always is, people make a lot of noise about this or the other thing. But it is just because they want to be paid. When they get paid, all this resistance will dry up. You’ll see.’

What we did not expect to see in Santa Rosa, and the reason why we asked Señor Tomás to pull over, were two gringos talking to the local police commander. The tall one turned out to be someone, Andrew Chapman, we had been pursuing without success for some time. Chapman was part of the senior management team of Mareña Renovables, a consortium seeking to build the largest single-phase wind park in all of Latin America (consisting of 132 turbines with



4.1 Isthmus of Tehuantepec, Oaxaca, Mexico

a production capacity of 396 MW). Mareña was, as everyone in the region knew, in deep trouble. Its park was designed to stretch across a sandbar at the southern end of the laguna from the *binnizá* (Zapotec)

community of Álvaro across to the *ikojts* (Huave) communities of Santa María del Mar and San Dionisio del Mar.

Originally on schedule for completion by the end of 2012, the project suffered several delays before becoming the focus of intensifying resistance during the second half of 2012 from popular assemblies (*asambleas populares*) across the lagoonal region. The *asambleas* are, as discussed in more detail below, community-level organizations of self-governance united against governmental and industrial *megaproyectos* (mega-projects) in the region. By the end of 2012, *bloqueos* (blockades) had been erected in both Álvaro and San Dionisio to prevent the start of Mareña's construction. Indeed, the day before, the president of Mareña's board of directors, Jonathan Davis Arzac, had announced to the press that the project and what the company calculated to be an investment of 13 billion pesos in the region would leave Oaxaca unless 'rule of law' could be guaranteed. Davis claimed there were only 'twenty well-identified people' resisting the park, what he and the Oaxacan news media characterized as a violent and unscrupulous minority of political opportunists, holding communities to ransom and blackmailing project developers. Mareña was unwilling or unable to believe that large numbers of Istmeños were organizing in resistance to a project that the consortium viewed as hugely beneficial to all stakeholders.

Even if we had come to be suspicious about the public minimization and demonization of the opposition movement, we found it hard not to sympathize with Chapman. He spoke to us openly. Shouting himself hoarse over the wind, he seemed like a man desperate to be heard. 'My job is to go in there and try to open a dialogue and to go and listen. But I can't do that with threats of violence. If it's safe to send my people in, I'll send them in. ... The only way to change minds is to listen to people. But if you're not allowed to listen to people, what do you do? [Throwing his hands up in despair] We've got this project that I really believe is good for the planet, good for the region, good for the people down here.'

The people, Chapman felt sure, would come around.

You can't help but be stunned by the beauty of this place. And then you see how the people are *living*. And I'm trying not to just impose my American values here but I don't think lousy medical care is a good thing, that lousy schools are a good thing ... So if

you can funnel resources into these communities to improve those services, imagine where they could be in five or ten years. They can still be fishing the lagoons but they'd have basic stuff, like electricity that is continuous, like transportation, like schools ... It may sound very idealistic but that's actually what we're trying to do. And to be confronted with this violence and with people who are essentially lying about what we're trying to accomplish ...

He trailed off; the resistance was wearying him and his investors. We asked how much patience he had left and he replied grimly, 'Not much.' Then, a moment later, he concluded,

I just find it frustrating, and sad, and the consequence is that the investor group that I represent ... they're sitting in their offices and they can put their money here, they can put their money there and they're just going to say to themselves, 'Why? I don't need these problems. I'm not actually in the business of saving the world, I'm in the business of earning money for my fiduciaries. And I need to do that in a low-risk way.'

More bad news came minutes later from the police – in the interests of his own safety there was no way they were going to allow Chapman to enter Álvaro that day. The risks were, as predicted, too high. The state police treat the Obregonian resistance with a great deal of caution. Memories are still fresh from the previous November when Mareña and the police last tested the Álvaro blockade during the Day of the Dead festival. With several protesters hauled off to detention in Juchitán and others subdued with pepper spray, the blockade was temporarily broken, allowing company workers to access the sandbar and begin topographic and vegetation removal work. But only hours later a much larger crowd of several hundred Obregonians rallied to chase the police and company off, overturning trucks and taking construction equipment hostage. We arrived in the aftermath to find the opposition more galvanized than ever. One of the leaders told us, machete at his hip, 'If they want to see blood, here we are, we're ready.'

As we finished our impromptu interview with Chapman, two gleaming white trucks glided up with other representatives of the company and the state government to collect him, and we parted ways at a crossroads that seemed designed by Hollywood as a symbol for the

impasse in which wind power development in Oaxaca was increasingly finding itself caught.

An anthropology of failure

Construction on the Mareña park site has still not, as of the time of this writing, begun. Indeed, it seems increasingly unlikely that it will ever begin and that the project will have failed despite strong support from all levels of the Mexican government, generous financing from the Inter-American Development Bank, new national policy regimes favourable to both transnational private energy development and to renewable energy development, almost uniformly positive media coverage in the national and regional press, and a consortium of powerful international investors. The marriage of Mexico's aggressive renewable energy development campaign,¹ its high electricity tariffs and the world-class wind resources of the isthmus seemed to all parties to be highly auspicious. In a matter of less than a decade more than a dozen wind parks have come on-grid in the isthmus, according to industry experts the densest development of wind energy anywhere in the world. Investors continue to flock to the region while renewable energy advocates across the world have lauded Oaxacan wind power development for its positive contribution to climate change remediation. The Mareña project alone could avert the emission of up to 879,000 tons of carbon dioxide a year.

What we seek to explain in this chapter is how a project as diversely supported and ecologically timely as Mareña failed. As one might imagine, the vectors of this failure are highly complex, involving both new and old forces, relations and institutions, each of which signals contingent power relations and contested interactions between and among social and natural domains. To stay true to the complexity of the case, in lieu of a simplified argument for a single decisive causality, we explore a bundle of different issues and perspectives that help illuminate the challenges facing programmes of energy transition, especially in parts of the world like the isthmus of Tehuantepec that have long been marginalized or abandoned by their governing states. Renewable energy, very much like its carbon counterpart, provokes challenging questions about resource sovereignty, indexing the uncertain and uneven abilities of nation-states to manage territorial resources in the public interest (McNeish and Logan 2012; this volume). In the case of renewable energy, which is intended to

prevent further climatological damage in the global public interest, and concerns about whose sovereignty, what territories and which resources ought to be state managed or locally controlled, surface dramatic ethical tensions between concerns for local and global well-being.

Of course it is no secret that large-scale projects of energy development are almost always politically complicated, especially when the intense energy needs of translocal governance and industry are perceived as threatening local interests. As critical institutionalist perspectives have shown (Cleaver 2012), it is very often the case that institutions tasked with managing natural resources are rarely explicitly designed to do so, and these disjunctive origins can easily result in ambiguous and 'patched together' development and responses to resistance. Recent anthropological studies have highlighted the complex and often contentious relationship between state- and industry-led energy development schemes and indigenous peoples, especially concerning rights to land and resource use (Colombi 2012; Smith and Frehner 2010; Turner and Fajans-Turner 2006; Westman 2006). Mexico has been no stranger to conflicts surrounding energy-related modernization schemes, especially in the areas of mining (Liffman 2012) and petroleum extraction (Breglia 2013). Until the 1980s, Mexico had the largest population displaced by irrigation and hydropower projects anywhere in the world (Robinson 1999).

But the isthmus also has a long political and cultural history of resistance to the hegemony of Oaxaca Valley elites and to the nationalist overtures and arms of Mexico City. Few histories of the isthmus, formal or informal, do not invoke or reinscribe an Istmeño tradition of struggle against external power (Campbell et al. 1993). Narratives often begin before the Spanish conquest with Istmeños depicted as the last true Zapotecs after the Aztecs made the northern Zapotecs their minions, assimilating them culturally and linguistically. Then one is reminded of revolt after revolt in the nineteenth century, of how national and Oaxacan hero Benito Juárez never broke the will of Juchitán even though he burned it. One hears how brave Juchitecos later fought valiantly against the French invasion of Mexico and helped secure the victory of the Mexican Revolution. But when that revolution turned corrupt, Istmeños rose again, with the Coalition of Workers, Peasants and Students of the Isthmus (Coalición Obrera, Campesina, Estudiantil del Istmo – COCEI) helping to accelerate the dissolution of the PRI's (Partido Revolucionario Institucional) power across Mexico. In all

such stories, the isthmus is frequently identified as the place where the sovereign powers of Oaxacan state and Mexican national governance end and where, as in Álvaro Obregón, the police fear to tread.

A local history of political resistance to national and state-level governmentality in the region surely explains, in part, Mareña's impasse. But the resistance also exists for reasons quite contemporary, illuminating deeper tensions and paradoxes in the dominant model of renewable energy development worldwide. As elsewhere in neoliberalism, market- and entrepreneur-oriented policies are trumpeted as the most effective and 'rational' solutions to anthropogenic climate change. Large-scale renewable energy projects like wind parks are highly capital intensive and thus become tightly bound to finance capitalism and to expectations for a positive return on shareholder investment. Thus, even though green energy projects typically speak a language of environmental sustainability, the growth imperative of dominant models of economic health and a rational-choice ethos carry over to them. Communities, perhaps especially indigenous communities, with resources like land, water and wind that can be converted to 'mega-project'-level renewable energy projects, thus often find their own interests compromised by the growth and profit motives of states and their transnational corporate partners.

In the fading light of the black sun

And there are more complications still. Oaxacan wind power development needs to be understood as a response not only to climate change but also to the vulnerability of the Mexican petrostate. Although peak oil fears have dissipated in many countries with the rise of shale oil and gas extraction, in Mexico such concerns remain both strong and empirically substantiated. Mexican heavy crude production fell by 46 per cent from 2004 to 2012. With its super-giant oilfield Cantarell running dry and the national oil monopoly *Petróleos Mexicanos* (Pemex) widely believed to lack the expertise and resources to effectively develop deep-water hydrocarbon resources, the Mexican petrostate finds itself at its own crossroads. In recent years Pemex has supplied as much as 40 per cent of the operating budget of the Mexican federal government, meaning that all aspects of Mexican statecraft depend critically upon revenue from oil sales. The crude production drop has been masked to some extent by a concomitant rise in international oil prices, which allowed Pemex to

retain high revenue. But, one might say, the current financial model for the Mexican state is only one crash in the carbon energy market away from disaster.² President Felipe Calderón's push to aggressively develop renewable energy resources was formulated in this context. As an official in the Mexican environmental ministry explained to us, 'we need to diversify the sources of our electricity production. The hydrocarbons we don't use for our own energy consumption are hydrocarbons we can sell at a good price.' As anthropologists of oil have noted in other contexts, the combination of enduring societal dependency on hydrocarbon resources and the mounting difficulties of resource extraction and environmental impact are generating intense and sometimes unpredictable political and cultural effects across the world (Behrends et al. 2011; McNeish and Logan 2012).

In the fading light of what Reza Negarestani (2008) calls 'the black sun' of oil, new energo-political models are taking shape in petrostates to support the dominant growth model (Boyer 2014; Mitchell 2011). In Mexico, interest in developing the wind resources of the isthmus of Tehuantepec dates back to the early 1990s. However, it was only during Calderón's presidency that a serious campaign to develop renewable energy began. Crucial elements of this campaign were new legislation and a regulatory framework favourable to private-public partnerships in renewable energy development. The wind power sector skyrocketed, growing from two parks producing 84.9 MW in 2008 to fifteen parks producing 1.331 gigawatts (GW) by the end of 2012 (a 1,467 per cent increase that has made Mexico the second-biggest wind power producer in Latin America after Brazil). The dominant development scheme has been industrial self-supply (*autoabastecimiento*) partnerships in which a private wind developer contracts to produce energy for a large industrial client (examples include CEMEX, Walmart and Bimbo) over a period of several years or decades. These schemes are typically portrayed as win-win-win for the government, developers and industry. Companies can lock in lower-than-market energy prices for the long term, enjoy the financial benefits of *bonos de carbono* (emission reduction credits), and guarantee themselves a secure energy supply. Developers enjoy special access to green development financing through organizations like the Inter-American Development Bank and the UN's Clean Development Mechanism. States receive infrastructural development and economic multipliers without having to invest themselves. Communities are also frequently portrayed as

winners in self-supply development in that they typically receive land rents and payments from usufructuary agreements.

But many Istmeños have come to have doubts about the benefits of *autoabastecimiento* wind development (Nahmed Sittón et al. 2011). Some have come to demand compensation for the use of their land beyond rents, some claim to have been tricked or pressured into signing contracts by agents of the government or developers, some deny the validity of mega-project-level development altogether. The Mareña project has helped to refine and to intensify resistance to the current paradigm of Mexican wind development for several reasons. First, the project is viewed by its critics as epitomizing a general lack of transparency in the development process. What is now known as the Mareña Renovables project has shifted names and forms several times since development began in 2003. Most recently, a Spanish energy firm, Grupo Preneal, which had signed contracts for land exploration and secured governmental permissions, sold the project rights (for what at that time were two separate projects) for \$89 million to FEMSA, Latin America's largest beverage company, and Macquarie Group, Australia's largest investment bank. These two companies quickly fused the two projects together and sold part of their stakes to the Mitsubishi Corporation and to the Dutch pension fund PGGM, and signed a power-purchase agreement with FEMSA-Heineken for twenty years. Little if any of this information was communicated directly to the communities that would be impacted by the park.

Speculative activity was also quite common in the early days of the Oaxacan 'wind rush'. It is difficult to reconstruct precisely the behind-the-scenes politics of the period, but there is significant evidence that some type of cartel-like organization was organized or permitted by the Oaxacan state government in which wind developers were assigned exclusive negotiation rights over choice plots in the core wind zone. Many of these plots were 'flipped' at a profit and again without informing the communities that would be impacted. This cartelism had unfortunate legacies in that communities were never allowed to entertain competitive bids from different developers, which set remuneration rates at a low level by international standards. Also, speculators, knowing they would not have to see these projects through to operation, apparently frequently cut corners in terms of community relations, with many Istmeños and communities complaining later of having been given insufficient or inaccurate information regarding

the benefits that projects would bring.³ In the Mareña case, a federal judge in Salina Cruz issued an injunction (*amparo*) to halt progress on the park project in December 2012 in order to further investigate opposition claims that communal land was being expropriated without prior information and the consent of the majority of the *comuna*.

A second criticism frequently raised against Mareña is that it has sought, like many wind developers, to advance its project through manipulation of local authorities rather than through consensus-building projects with whole communities. Companies fervently deny these claims. But critics contend that contracts for exploration and land use rights were facilitated by bribes paid to *presidentes municipales* (mayors) or *comisariados* (collective land commissioners) in the form of cash or trucks. Even when these authorities are not personally implicated in embezzling funds or resources, it is said that they share these resources only within their own political network, thus taking what ought to be a social good and privatizing it. Multiple high-ranking members of the Oaxacan state government singled out Mareña as the worst offender they knew in terms of these practices. One figure described Mareña to us as a 'clear case of how things ought not to be done'. Another wondered why Mareña would pay 'loads of money' to buy off local authorities who rotate every three years in the normal course of elections.

This points to a third general area of complaint – that wind development in the isthmus has been accentuating social inequality, political polarization and violence by deprioritizing general social benefits (e.g. the very schools and healthcare mentioned by Chapman) in favour of benefits to specific landholders and authorities. For example, although it has significant backing among most political parties in the isthmus, wind development is particularly associated with the PRI party's political network. The PRI are in turn closely associated with the construction unions that benefit directly from park contracts. Across the isthmus we have heard that PRI political authorities recruit groups of *golpeadores* (thugs) from the construction unions who are utilized to intimidate, threaten and in some cases actually attack those who resist or oppose wind park developments. This dynamic has been particularly evident in San Dionisio del Mar, which has been on the front lines of the Mareña conflict. Although there is some evidence that the wind park enjoyed bilateral support in earlier phases, as the project has advanced it has clearly exacerbated

local political tensions between the long-reigning PRI and the leftist PRD (Partido de la Revolución Democrática). The PRD faction in San Dionisio has accused the PRI *presidente municipal* of signing a usufructuary agreement with Mareña to begin construction work without consulting them and of pocketing the fee for himself and his allies. Thus, as one San Dionisian student put it pithily, 'the whole town is divided. Basically, if you are a PRI family, you are for the park. And if you are in the PRD you are against it.'

Although many of the criticisms levied against Mareña are similar to those that all wind development in the region now faces, it is important to highlight certain singularities of the project that have helped make it a watershed case. When we asked one mid-level Mareña employee why she thought the project had generated so much controversy, she said, 'Well, for two reasons. It's a very ambitious project and it's the first one designed to occupy communal land.' The project is ambitious in that it would be the first one to impact multiple communities in the area (not only Álvaro and San Dionisio but also the many other lagoonal communities that have traditional rights of access to fishing near the sandbar). Likewise, it would indeed be the first park to occupy land actively administered in the *bienes comunales* land tenure system, which requires a majority of *comuneros* to approve any change to the use of the land. Although other wind park projects have occupied land that is formally communally owned, they have always been in cases in which communal organization had lapsed and/or a communal decision for land privatization had occurred previously, allowing current landholders the right to contract individually with developers.

Finally, we would also highlight a geographic singularity to the Mareña project: as apparently the only wind farm project in the world designed to occupy a sandbar, its environmental impacts are especially difficult to estimate. There is little evidence available to address burning questions such as whether the presence of the turbines would create vibrations and shed light that would scare fish away. The Environmental and Social Management Report published by the Inter-American Development Bank in November 2011, for example, noted the possibility of short-term 'economic displacement' from the disruption of fishing during the construction phase of the park (2011: 18–19) but curiously failed to discuss long-term impacts of the park's presence on local fish populations despite extensive analysis of possible impacts on bat, marine turtle and jackrabbit species.

Thus, to summarize, in certain respects Mareña amplifies doubts and criticism already being directed towards Oaxacan wind development (manipulation of authorities, cartelism, heightened social inequality). In other respects, the project represents a watershed event by being the first project attempted on communal land, the first project to impact multiple communities simultaneously, and the first in the region located near fishing communities instead of agrarian and ranching communities. These factors combined to create a context in which local resistance groups united in a regional and increasingly trans-regional network during the period of our fieldwork in 2012 and 2013. Since it has been by far the most immediate cause of the Mareña project's failure, we now turn to a deeper analysis of the 'anti-eolic' resistance movement in the isthmus of Tehuantepec.

Capturing the meter

Back at the crossroads of green capitalist aspirations and the barricades of Álvaro Obregón, one is struck by the sheer quantity of dust that arises as a truck rolls down the road; it is reason enough to wrap a handkerchief or T-shirt around any and all respiratory orifices. Men in Álvaro Obregón are often outfitted this way, bare chested with a thinning T-shirt shrouding nose and mouth to keep the dust out. Maybe the protective shirt is printed with the smiling face of a bygone candidate, maybe a rock and roll concert relic; in either case, the chronic cough that is audible all over Álvaro makes it seem as though this is a losing battle. Today, in front of the abandoned hacienda that the *resistencia* has appropriated as their meeting place, T-shirts have been fashioned into masks by a group of young men with a more symbolic purpose, signalling a touch of outlaw: part Zapatista, part universal gangster. As they jump down from the back of a white pick-up truck even the T-shirt masks don't conceal their smiles. They've just returned from an excursion to the site where Mareña Renovables has its test tower, a spindly metal steeple with a three-pronged wind vane to measure the quality, duration and force of the wind. The masked men have something in hand, a prize. The crowd, numbering seventy or so, soon gathers around, eager to see what it is. Passing the booty from hand to hand with care, the object finally gets close enough for us to see that it is a gauge of some kind, with settings and indicators in English and numbers on dials. 'It fell down,' they explained to us, 'from the tower.' 'It fell down?'

we asked, incredulous. Their grins grew perceptibly wider; they had decided the bluff was not worth pursuing. 'Well, it fell off when we pulled down the tower.'

The Mareña project may have a powerful set of allies and all the forces of transnational capital behind it. But it does not have the approval of the men in T-shirt masks. Protest against the Mareña project has political precedent from the COCEI movement and earlier anti-eolic protests in the isthmus to more pervasive concerns about mega-projects in general (Gómez Martínez 2005). Those in the resistance often connect their political affinities to these histories, such as their ideological links to the Zapatistas and an original (uncorrupted) COCEI. But the *resistencia* also shares affinities with a broader, contemporary set of political practices and protests against the status quo, from anti-globalization movements to Occupy. In the second half of this chapter, we document the antecedents of the anti-Mareña resistance, focusing on their political genealogies as well as their ideological commitment to collectivist, non-hierarchical models that aim to supersede historic ethnic and political rivalries. Often drawing from ideals of neo-indigenous horizontal organization and reinvigorated customary law, the *resistencia* has channelled opposition against the Mareña park for both its mega-project scale and its transnational financial ties. Posing an explicit critique of neoliberal forms of development and foreign financial intervention, the resistance has sought to foster collaborations between *ikojts* and *binnizá* populations and to encourage alliances across party lines, although each of these goals meets with uneven results. Finally, as we describe below, the *resistencia* has found political purchase not because it opposes renewable energy (it does not), but because it has brought to the surface concerns about the potential environmental and social consequences that might follow in the wake of the park's construction. The *resistencia* has codified a suite of concerns ranging from the displacing and destructive potential of mega-projects to worries about the loss of land and fish. *La laguna, la pesca* and *nuestra tierra* have become affectively aligned as both elements of quotidian practice and symbols of regional patrimony. The local resistance that has effectively halted the Mareña project has led us to understand that climate change mitigation measures have indeed, as Mike Hulme predicted (Hulme 2009: xxvii), fomented new opportunities for environmental consciousness and activism. However, the environmental critique

levelled by the resistance contravenes corporate and state-sponsored sustainable energy projects that also claim to offer protections to our shared ecology. While transitions to renewable energy have the ethical potential to leverage a global climatological good, when they are seen to contravene local claims for rights, autonomy, environmental knowledge and ecological stewardship, they instead generate, as Mareña found, the conditions for failure. We have found that when renewable energy transitions and climate mitigation are coupled with neoliberal development schemes that mirror the logics of extraction, we are apt to see a reinvigoration of lateralist, collaborative and horizontal modes of activist response and resistance.

Rescuing the land from the wind

The office of the Asamblea de los Pueblos Indígenas del Istmo de Tehuantepec en Defensa de la Tierra y el Territorio is readily identified on the streets of Juchitán; it is the one with the anti-eolic art on its façade. As we sat down one Sunday afternoon with two of the founders of the *resistencia*, it was hard not to notice our intimate physical proximity in this tiny room decorated with images of past victories and heroes from Che Guevara to Subcomandante Marcos. Roberto P. began the conversation and proceeded to detail a vast historical narrative of the *resistencia* over the course of over an hour. Roberto is one of the primary voices of the resistance; he does not, however, like to be called a 'leader'. This is a designation that he associates with hierarchical, vanguardist and, ultimately, corrupt political forms. Roberto is a teacher by vocation and by nature, as became clear in his oration of historical events. The *resistencia* against Mareña, he explained, must be understood through a longer genealogy that spans many decades and locations. In addition to the insurrectionary politics of the isthmus – particularly the early COCEI movement – Roberto linked the *resistencia* to: the repression of the student movement in Mexico City in 1968 and a guerrilla *foco* in Chihuahua before that, the Chiapan rebellion of the Zapatistas following the North American Free Trade Agreement (NAFTA), the battle over the development of an airport in Atenco in the early 2000s, the teachers' strike and state violence in the capital of Oaxaca in 2006 guided by APPO (Popular Assembly of the Peoples of Oaxaca), and Maoism itself, with its agrarian peasant insurgencies and challenges to First World imperialism. Roberto's cartography of revolution and response to

foreign domination, urban hegemony and rebellions against neoliberal development brought us to the origins of anti-eolic resistance in 2005, founded by a group of committed teachers. He and others had protested against the installation of the La Venta wind park in the 1990s, noting that Subcomandante Marcos himself showed up and spoke in solidarity with them. Beyond symbolic gestures of the Zapatista leadership, the *asamblea* could also claim several significant victories of its own. These included nullifying contracts across the region and 'rescuing' 1,200 hectares of land from being contracted and thus turned into wind parks.

Roberto gives credit where credit is due; he is faithfully citational in his rendering of the *resistencia's* insurrectionary lineage. Originally, the Juchitecan arm of the resistance worked under the name Frente de Pueblos en Defensa de la Tierra y del Territorio. However, the designation '*frente*', Roberto explained, is overly encumbered by vanguardism, hierarchical leadership and a military etymology, all qualities that they hoped to surpass. By consensus it was decided that the title of '*asamblea*' better captured their ethos. An *asamblea* evokes, as Roberto put it, 'a more indigenous notion, that of community'. With an egalitarian order and their rejection of hierarchical leadership the *resistencia* has proceeded with their platform in place.

That is how we began and how we have preserved the shape of this struggle ...

Since then, and in a concrete way, we have defined the line we have held until now, and that is, legal defence, direct action, mobilization, constant information for the communities, and founding *asambleas*.

Roberto readily adds that 'We have traversed the entire historical process of the left in Mexico in order to be able to offer an alternative.' The communitarian spirit of lateralist leadership and collective consensus is emphasized in both name, *asamblea*, and spirit, rejecting leaders and, implicitly, a flock of 'followers'.

Dedication to the collective model is also manifest in the deeds of the *resistencia*, who have prioritized founding more *asambleas* as a central part of their mission. *Asambleas generales* have since multiplied across the isthmus in towns and villages supporting the anti-Mareña resistance. These working forms of *autonomista* protest and process call for collective decision-making in a reinvented use of *usos y costumbres*

(literally, practices and customs) – a legal and social system operating in parallel to state governance. *Usos y costumbres* have generally been regarded as a counterbalance to indigenous people's marginalization in elite national projects throughout Mexico and in other Latin American countries. The *resistencia* has evoked similar neo-indigenist ideals in its organizational forms as well as discursively in its materials and pronouncements (Jackson and Warren 2005).⁴ Lauding indigenous knowledge and evoking autochthonous environmental stewardship have been powerful and proximate logics for the resistance movement, even as they risk certain essentialist interpretations (Dove 2006: 195–8; Tsing 2003). Claims to environmental wisdom and indigenous sovereignty have also been tailored to a very specific, and novel, alliance between *binnizá* and *ikojts* communities.

The ideological traction of indigeneity draws upon millennia of *binnizá* and *ikojts* dwelling in the region, but the *resistencia* has reworked an ossified anecdote about interethnic conflicts between these two communities (Gómez Martínez 2005), regarding land, displacement and historic antagonisms. Challenging the construction of the wind park, for many people with whom we spoke, marks 'the first time in history' that *binnizá* and *ikojts* peoples have worked together collaboratively. Pan-indigenous movements, *neoindigenismo* and collaborative activism have a precedent in Mexico (Stephen 2002; Jung 2003), but the co-ethnic solidarity between these two populations is understood to be a singular and critical advance in co-rectifying corporate and state exploitation. Alliances between *ikojts* and *binnizá* communities, as several people in the resistance shared, still feel very new, emerging, and not fully complete. Their only common language is the colonizers', yet working in this idiom, the *resistencia* has crafted a collective agenda of indigenous rights in the face of renewable energy incursions. A *comunero* from San Dionisio, for example, described how autonomy for first peoples and their ability to continue to occupy the lands where they have resided hold a certain power of truth and right.

Today in San Dionisio the struggle continues, just as it began with our heroes who came together to seek Mexico's autonomy; here also, we seek autonomy for first peoples, for indigenous people, because we are the true owners of the land and the territories of the seas.

The *resistencia* has fomented and fostered collaborations that traverse historical divisions between local indigenous populations, but they have also managed to navigate party political lines. Given the historical strength and chauvinism of party politics in Mexico it is no mean feat for PRI-istas in the resistance to share meals with the PRD and the COCEI. Political rivalries have not ended – especially since PRI-istas are believed to be the primary beneficiaries of the isthmus wind boom – but within the ranks of the resistance these divisions have been muted. The political machinations of the parties continue apace in many aspects of wind park development, but because the political parties, left and right, have largely taken an official stance in favour of the Mareña project, the parties themselves have lost favour in the eyes of those resisting wind park development. The anti-Mareña resistance has, in further bids for autonomy, gone as far as summarily questioning the validity of political parties as legitimate democratic entities. Antonio L., one of the founders of the *asamblea* and one of the key voices in the *resistencia*, speaking to a crowd gathered in Álvaro Obregón, affirmed, ‘Today is a declaration of war against the political parties, against the government, against Mareña Renovables, against everyone who is allied with or affiliates with Mareña Renovables.’ Antonio and others in the *resistencia* also publicly announced that no political party candidate would be allowed to campaign for political office in the upcoming municipal elections. In June 2013 they made good on this pronouncement by prohibiting the installation of voting machines. The parties and the park have become a combined menace for those in the resistance, and so both have been given a directive and a direction: *fuera* (out).

On fish and neoliberalism

In January 2012, San Dionisian *comuneros* were meeting in earnest to block construction of the Mareña park under a new appellation, ‘*los inconformes*’ (the nonconformists). By April *los inconformes* had initiated a permanent occupation of the town’s municipal headquarters. Allied with forces in Álvaro Obregón, Juchitán and other communities, as well as other indigenous rights organizations in the region, such as Union of Communities in the North Zone of the Isthmus (Unión de Comunidades de la Zona Norte del Istmo – UCIZONI), the San Dionisian protests found further collective force, impact and media attention. ‘*Fuera Mareña*’ (Out with Mareña) was a slogan that was

beginning to ring out, and ring out increasingly loudly, across the isthmus.

In the discourse of the *resistencia*, the potential for a ‘*despojo de nuestra tierra*’ (being robbed of our land) has been a rallying cry and an ominous reminder of colonial histories. It also operates as a reference to the thirty-year (or more) contracts that landowners, *ejidatarios* and *comuneros* sign with companies for turbine and road placement. The land, much of which was bequeathed for collective use by the federal government over the course of the last century, has a powerful patrimonial significance as well as an economic role in many Istmeños’ lives. While land has been a key concern regarding wind parks throughout the isthmus, water – and more specifically that which inhabits the water and those that subsist from the water – has been a critical subject for those resisting the Mareña project. Indeed, there has been a clear effort to ‘conjure nonhumans’ as potent forces in these political struggles (De la Cadena 2010).

The fishermen with whom we spoke in San Dionisio and across the isthmus were convinced that their lives and their livelihoods would be irrevocably impaired by the development of the wind park. The precise effect that the Mareña project might have on the fish or shrimp population was unclear, given the environmental impact report’s failure to treat this aspect of the regional conditions and the project’s unique placement on a sandbar. However, in part because of this absence of scientific analysis, fears abound. Ibrahim C., who would emerge as one of the key voices among the *inconformes* in San Dionisio, summarized the sentiments of many in the region.

The wealth of our sea, of our people, of our source of work and nourishment is vital [...] If the wind project comes in we will be buying foreign products coming from other places which will make feeding ourselves more expensive [...] and so in a sense San Dionisio now sees itself, or has transformed itself, into a courageous town that defends its lands and teaches foreigners that our lands must be respected.

It is telling that Ibrahim begins his comments with the ‘wealth of our sea’, for over time, as the resistance to the project grew and spread, we began to hear, increasingly, the expression ‘the sea is our bank’ (*el mar es nuestro banco*). This was a canny spin on the evident presence, or imposition, of banking interests and multinational capital

that have backed the Mareña project. But 'the sea is our bank' is also a factual statement to a degree. According to reports there are 5,000 indigenous families that rely upon fishing for their existence. Even if the number of fisherfolk in San Dionisio proper who survive exclusively by fishing is likely no more than a few dozen, many, if not the majority, of the population rely on fishing for a kind of security subsistence in conditions of economic and food insecurity; if all else fails the sea is there and you, and your family, can eat. Ibrahim is not naive, after all, to underscore how harm to *la pesca* will result in increased dependence on a market-based food supply and further insertion into a vast chain of imported products.

Many advocates, Ibrahim included, were clear that opposition to the wind park was not a refusal of its 'clean' capabilities and renewable energy aspirations. Rather, they wanted to mount a warning and protest against the prioritization of market-based growth models spreading across every dimension of daily life in Mexico. Berta C., one of the founders of the Juchitecan *asamblea*, underscored that it is not wind energy that is at issue, but the specific dangers of massive foreign capital investment in the region that the parks have portended. These fiscal threats come in the form of bribes, manipulation and payouts. Huge sums of financial investment, whether invested in land rents or secretly passed into the hands of local caciques, are viewed as denigrating local sovereignty, causing further 'tears in the social fabric'. If there is any parallel to be made between NIMBY (not in my backyard) complaints and the concerns being voiced by San Dionisian fishermen or those wo/manning the barricades in Álvaro Obregón, it is of a qualitatively different kind. NIMBY objections that are pervasive in places such as the United States and Europe – disrupting one's view, spoiling the look of landscapes – ring hollow in comparison to those of subsistence fishermen pleading for their ability to survive. It is especially apparent when they are able to articulate the multiple ways in which neoliberalizations have changed and, from the point of view of many, endangered their ways of life and livelihoods.

Conclusions: downed windmills

Andrew Chapman, in his baseball hat with the thrashing fish embroidered across the front, and the young man behind his makeshift mask with the absconded wind meter in his hand represent very different places, both metaphorically and physically. Chapman has long

since returned to New York, and the young man with the meter, he is likely either swapping stories with his friends or out on the water hauling shrimp-filled nets from the lagoon by moonlight. There is no reason to make speculative comparisons between the very different lives of each of these men and the economic, social and cultural worlds they represent. But it is fair to say that they do have shared expectations and parallel hopes for the future. Each of them can claim a virtuous, ethical position: the American bringing development, fomenting markets for renewable energy use, slowing the creep of global warming and producing profit for green investors; the Istmeño fighting for his future on the lagoon, challenging foreign invaders and transitional capital, ensuring 'food sovereignty' for himself, his family and the region.

Since they have a climatological impetus, mega-projects of clean energy production would seem to have an ethical edge over other mega, extractive endeavours, such as mining or oil drilling. However, the very dimensions of a mega-project, 'clean' or 'dirty', are invariably worrisome and controversial because they consume such vast tracts of space, whether land or sea (Turner and Fajans-Turner 2006; Liffman 2012). Renewable energy production may be a dramatic improvement over its carbon cousin, but in the case of the isthmus, the injection of foreign capital appears to erase much of this environmental and social potential. In this sense, the Mareña project and its failure in the face of resistance reveals more than simply another development desire gone awry. Rather, it brings to the surface ethical tensions that position local economic and environmental health against global economic and environmental health (Howe 2014). The Mareña case is a political economic calculation that attempts to balance scale against compensation. However, it also challenges the deeper logics of energy transition by demanding responses to how putative benefits and remediations will be made now, and in the future, locally and transnationally. There is likely no one in Álvaro Obregón, San Dionisio or other communities in the resistance who would declare their outright opposition to preventing further climate change or, in the broadest terms, making the world and their environment more humane and more hospitable. However, to entreat them to sacrifice their land and fishing grounds on behalf of international global protocols and climate change mitigation mandates devised in Kyoto, Durban and Copenhagen, which, in turn, benefit investors and developers at least as far afield, is a proposition that does not sit

well in the isthmus. In a place that has successfully thwarted outside influence and control for several centuries, development driven by private, foreign capital for the benefit of large corporate consumers seems like folly. Asking Istmeños to risk further precarity on behalf of global warming and an abstract 'greater global good' may appear preferable to re-enacting histories of corporate exploitation and extractivism, but this attempt to engineer climatological altruism has failed to gain much traction. As they seek to protect and defend the resource-rich places they inhabit, the *resistencia* reiterates a politics of territoriality. Their motives can be understood, in this sense, as another attempt at 'resource sovereignty', whereby autochthonous communities seek to manage their territorial resources – such as land, water and wind – with or without the sanction of the state (McNeish, Logan and Borchgrevink this volume: 3). The Mareña project has proved to be a critical referendum on the possibilities for renewable energy in Mexico, but it is not singular, nor will it be unique as renewable energy projects continue to expand in Latin America and around the world. It is a lesson, however, in how disjointed development and failed attempts at sustainability mirror other projects that have similarly taken market-based models as the only possible 'rational' solution to the threats of the Anthropocene.

Critiquing capitalist development and creating horizontal and collective political models, the anti-Mareña actions share an affinity with uprisings and protests from Tahrir Square to Zuccotti Park. Horizontal networks function in place of hierarchies, consensus democracy replaces top-down direction, and principles of decentralization are prioritized (Graeber 2002). Reacting to these projects of green neoliberalism, the *resistencia* has been able to recapitulate the roots of the anti-globalization movement(s) and direct actions that, for many, originated with the Zapatistas. Like the Zapatismo formed in the Lacandon jungle, anti-WTO protests in Seattle, protests against the G8 in Geneva, to, most recently, Occupy across North Africa, North America and Europe, the *resistencia* has rejected hierarchical orders and decision-making (Jung 2003; Muñoz Ramírez 2008; Razsa and Kurnick 2012; Stephen 2002). It has made definitive critiques of neoliberal policies and the ways in which private finance capital may endanger local communities' livelihoods and well-being. In this sense, we would argue, energy protest movements in the isthmus represent an 'outpost of the new opposition' (New Left Review 2001).

However, there are at least two important distinctions to make regarding the Istmeño response to *neoliberalismo verde* that make it stand apart from Occupiers, anti-globalization actions and neo-anarchist movements that have emerged in other parts of the world. The first is their explicit incorporation of a collaborative, neo-indigenous model coupled with an adherence to a communal *asamblea* ideology; these tactics have been seen in other Latin American struggles over sovereignty and resources, to be sure (e.g. Dove 2006; Turner and Fajans-Turner 2006), but anti-eolic protest in the isthmus signals an emerging logic of resistance that rejects both green capitalist aspirations and greenhouse gas reduction as justifications for territorial displacements (see Howe 2014). The second distinction to be made is that the *resistencia* in the isthmus is, unlike Occupy, not reacting to a global financial crisis, but instead drawing attention to protracted forms of marginalization exercised by state policies and green capitalist developers. In other words, they are reminding those that will listen that they have been 'the 99%' for quite some time. The *resistencia*'s critique is not aimed at the *failure* of global finance capital, but rather is a scathing commentary upon its '*successful*' propagation across the isthmus. In place of Wall Street banks that were too big to fail, the resistance has challenged a massive renewable energy installation that has also seemed – with all of its international development and corporate sponsorship – too big to fail. And yet, as of now, it has. Despite the heft of Mareña's clean energy aspirations, the occupations of roads and barricades have revealed their debilities and shortcomings. And in this sense, the refusal of the Mareña project is not simply a referendum on how renewable energy projects will proceed in Mexico, but a foreshadowing of potential resistances, North and South, where renewable energy projects may be, increasingly, objects of dissent.

Notes

1 Under the administration of Felipe Calderón (2006–12), Mexico made great strides towards combating climate change through *transición energética*. The country's General Law on Climate Change (signed by Calderón as he was leaving office) outlines a comprehensive strategy for climate-resilient and low-carbon economic growth. The scope of

the legislation makes it one of the most ambitious climate remediation laws in the world and it has, along with previous policies to reduce greenhouse gas emissions and bolster conservation, made Mexico a world leader in climate change mitigation.

2 Indeed, as this volume goes to press, the Mexican government has

announced 8.3 billion dollars in budget cuts reacting to the downturn in oil prices in late 2014.

3 In our recent survey of La Ventosa, an isthmus town now surrounded by active wind parks, we were surprised by how many people reported having been led to believe that the wind parks would reduce their electricity costs.

4 Although they are understood to be a pre-Columbian inheritance, *usos y costumbres* have been modified over time and have experienced a resurgence throughout Mexico (Carlsen 1999: 2; Stephen 2002; Rubin 1998).

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