LANDSCAPES OF POWER:  
AN ETHNOGRAPHY OF ENERGY DEVELOPMENT 
ON THE NAVAJO NATION

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A dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Anthropology.

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Abstract

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Landscapes of Power:
An Ethnography of Energy Development on the Navajo Nation
(Under the direction of Dr. Dorothy Holland)

This dissertation examines the cultural politics of energy development on the Navajo (Diné) Nation in the Southwestern United States (Arizona and New Mexico) through an ethnographic study of Desert Rock, a coal-fired power plant proposed by the Navajo Nation government. Since its initial proposal in 2003, the proposed plant has spawned widespread controversy both among tribal members and in the greater region, despite its unbuilt, emergent status. This dissertation follows the actors engaged in this debate, showing how Desert Rock became a fulcrum for urgent negotiations of Navajo identity and indigeneity, sustainable development, tribal sovereignty, and expert knowledge. I argue that these dynamics constitute landscapes of power, where Navajo people understand their region in large part through the political history of energy minerals; negotiate difference (ethnic, gender, and epistemic) through engagements with infrastructure and ecology; create a space for cultural artifacts that envision the effects of energy development on Navajo lands and bodies; contest and articulate particular meanings of sovereignty; mobilize expertise and new practices of knowledge production; and finally, forge new ethical subject positions vis-à-vis debates over technology and the environment. Showing how legacies of extraction on the Navajo Nation are both material
and epistemological, the dissertation puts the politics of energy into conversation with the politics of knowledge production, especially as these bear on contemporary anthropological practice. I draw on three types of qualitative data: (1) interviews with a diverse range of people invested in the Navajo Nation’s energy development outcomes; (2) participant observation in energy-related events and collaboration with members of a Navajo environmental organization; and (3) discourse analysis of newspaper articles, grassroots research reports, tribal government reports, and public hearings. This dissertation contributes to the interdisciplinary fields of political ecology, science and technology studies, critical indigenous studies, and nascent work in the anthropology of energy, illuminating how a particular conflict over natural resource management and energy infrastructure galvanized diverse modes of knowledge, energy activism, and identifications with environmentalism. Effectively, the contested technology generated an enduring legacy for the future of energy policy and activism on the Navajo Nation and greater Southwestern region.
To all my teachers.
Acknowledgments

This project is a culmination of many years of academic and non-academic work. Though singly authored, it is the product of a collective of individuals, organizations, and institutions. First and foremost, my deepest gratitude goes to the many people on the Diné (Navajo) Nation who opened their homes and hearts to me. Among these, I am particularly indebted to Earl Tulley and the Blue Gap Chapter for their invitation to do this work and Earl’s steadfast support of the project, and to Adella Begaye and her extended family for welcoming me into their home and lives in Wheatfields, Arizona. My thanks also extends to Anna Frazier, Lori Goodman, Donna House, Sarah Jane White, and others with Diné CARE for sharing their decades of experience in environmental justice work, offering me a place at the table, and demonstrating the sheer power of women’s leadership in environmental movements; to Dáilan Jake Long for our close collaboration, his sharp intellect and humor, and for sharing with me his life in Burnham; to Alex Mitchell for his crucial research assistance and generous storytelling; to Elouise Brown and Al Bennnet for lessons offered through organizing in the Ram Springs desert; to the Tsaile Bitsui’s and Enei Begaye for her support, critical insights, and gentle hospitality; to Ed Singer for his generous knowledge of the geological, political, and artistic landscape of the Navajo Nation; to Andrew Curley, for his research assistance, collaboration, and expansive wit; and to Nikke Alex and Moroni Benally, colleagues in
political-ecological-philosophical research. Their experiences and insights inform this work.

I am also grateful to a number of Diné institutions for permitting and furthering my research, especially Ron Maldonado and the Navajo Nation Historic Preservation Department in Window Rock, Arizona. In Tsaile, the Diné Policy Institute invited me to their conferences and into a collaborative role in some of their policy research, deepening my understanding of the breadth of intellectual work underway on the Navajo Nation today. My gratitude also extends to the various Navajo Nation government agencies, which granted me interviews and offered general direction to the project.

Beyond the Navajo Nation, I am deeply thankful to a number of other colleagues who shared their particular expertise and good friendship with me, including physicians Kristi Nix and Charlotte Lin for periodically housing me (and my dog) in Chinle; to Tony Estrada and Lori Nalin for their creative and documentary perspectives; to Brad Bartlett and Estella Moore for their combined legal, biological, and musical talents; to Carlan Tapp for showing me the struggle in black and white and making pictures that capture what I’ve found so difficult to put into words; to Jim Enoté for orienting me in the Southwest and introducing me to the Zuni Pueblo and indigenous mapping; to colleagues at the Southwest Research and Information Center for access to their archives; finally, to Erin Hourihan, Mia and Max for their friendship, open home, and unconditional entertainment, and most especially, Mike Eisenfeld, whose expert command of regional and federal environmental policy and intimate knowledge of the Colorado Plateau’s ecology provided much needed background for my understanding of the region and its dynamic, complex political actors.
This dissertation project would not have ever taken root without years working with Faye Brown, Winona LaDuke, Amy Ray, Emily Saliers, Russell Carter and team, Tom Goldtooth, and everyone else at Honor the Earth, the Indigenous Environmental Network and the Indigenous Women’s Network. Though they (like everyone else mentioned) are fully absolved from any responsibility for what these pages contain – all errors are completely my own – their leadership and vision in how to think and do environmentalism differently inspired my activism and my eventual doctoral research. Working at the unusual intersection of musical arts, feminism, environmentalism, indigenous rights, and alternative development models, their collective critique of cultural-historical patterns in the global energy industry helped launch what became this present work.

At the University of North Carolina-Chapel Hill, a number of professors and colleagues formed my intellectual foundation, introducing me to possibilities grounded within but also looking beyond the field of anthropology. Among them I am particularly grateful to my advisor, Dorothy Holland, for steadfast intellectual and logistical guidance over the past eight years, timely challenges, collegiality, long hours of discussions on the project, and careful reading of many drafts of this dissertation. I am also thankful to my outstanding committee members, Arturo Escobar, Peter Redfield, Orin Starn, and Silvia Tomášková, for providing constructive criticism, support, and an invigorating range of theoretical perspectives on my work. Other professors who commented constructively and meaningfully on papers at earlier moments in this project’s emergence include Judith Farquhuar and Margaret Weiner. I surely would not have completed this project without the lively sociality and unwavering support of two dedicated writing groups, which
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<tr>
<td>BIA</td>
<td>Bureau of Indian Affairs</td>
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<td>BMWC</td>
<td>Black Mesa Water Coalition</td>
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<td>DOE</td>
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<td>HTE</td>
<td>Honor the Earth</td>
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<td>ICOUP</td>
<td>Intertribal Council on Utility Policy</td>
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<td>IEN</td>
<td>Indigenous Environmental Network</td>
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<td>IMLA</td>
<td>Indian Minerals Leasing Act</td>
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<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<td>NNC</td>
<td>Navajo Nation Council</td>
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<tr>
<td>NTUA</td>
<td>Navajo Tribal Utility Authority</td>
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<tr>
<td>PSD</td>
<td>Prevention of Significant Deterioration</td>
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<td>PTC</td>
<td>Production Tax Credit</td>
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<tr>
<td>SJCA</td>
<td>San Juan Citizens Alliance</td>
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<td>Tribal Energy Resource Agreements</td>
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Introduction

I. Prelude: Four Arrivals

A. First Arrival: On Tour

My first arrival to the Navajo Nation was on a biodiesel-fueled tour bus filled with musicians, environmental activists, and sound engineers. We were midway on a cross-country trek of benefit concerts, media campaigns and grassroots organizing events, working with dozens of American Indian communities through the national indigenous environmental justice movement in its efforts to critique the role of coal, oil, large-scale hydro, gas, nuclear and other energy development projects in Native American Nations.\(^1\)

We had driven all night on Interstate 40, heading south then west after a series of

\(^1\) A note on terminology: Throughout the dissertation, I will use the term “Native Nations” or “Native America,” rather than “tribes” to indicate the pluralistic collectivity of sovereign indigenous groups in the United States. This is a political choice, following recent critical scholarship in Native American/Indigenous Studies but perhaps more importantly, following Navajo sensibility about the power of words. In a statement arguing why the term “Native Nations” should be replaced with the word “nations,” Navajo Nation President Albert Hale puts it directly: “In Navajo, the teaching is to be careful with your words because words are sacred, words are powerful. The words that we talk, the language that we talk in Navajo is given to us by the Holy People, so you need to be careful with those words. So we try to be. The words that we use reduce our sovereignty” (Hale and et al 2006, 86). Even with sovereignty’s ambiguities (or precisely because of sovereignty’s ambiguities) as discussed later in the dissertation, I opt for “nations” following Hale’s (and many others’) argument. Terms such as American Indian Nations, Indian Nations, or Indigenous Nations are also consistent with this politics, but I prefer Native Nations as it was more frequently in circulation among my Navajo consultants. When speaking of members of a specific Native Nation, I will say “tribal members” if speaking generally (again, following Hale), or “Navajo people” or “Diné people.” Regarding the choice between speaking of “Navajo” versus “Diné” (the self-identifying term tribal members use for themselves or for the Navajo/Diné Nation), I will use these two identifiers interchangeably, depending on the context. When speaking of pan-Native networks or Native groups outside the United States, I will follow the conventions of those groups (i.e., “First Nations” in Canada) as well as use “indigenous” as an identifier of original or autochthonous status within the states in which these groups reside.
concerns and political events in the upper Midwest with Menominee, Anishinaabe (Ojibwe), and Cree communities. To draw attention to our entourage, our bus was followed by a pick up truck pulling a large, cylindrical “mock nuclear waste cask,” demonstrating the threat of transporting spent radioactive fuel thousands of miles across the country – at the time, part of the federal plan for nuclear waste storage.

I was on the bus as political organizer and assistant manager for the musical duo Indigo Girls (musicians Amy Ray and Emily Saliers), collaborating with the Native non-profit organization Honor the Earth in one of our every-other-year benefit tours in Native communities. Ray and Saliers encountered Native environmental activism through their leadership, then subsequent disillusionment, with mainstream environmentalism and anti-nuclear work in the 1980’s. They recount hearing Anishanaabe activist Winona LaDuke speak at an Earth Day rally in 1990 as a political awakening, changing the course of their activism, weaving them into a burgeoning network of national and transnational activists, tribal governments and non-governmental movements who were part of the broader critical paradigm of environmental justice. I worked within these networks of Native activists, musicians, funders, government agencies, and non-profits, leveraging celebrity power for philanthropic ends, with a focus on extractive industries in Native lands.

The bus pulled into Window Rock, capitol of the Navajo Nation, on the cool dawn of October 9, 2000. Out the bus window, I saw a rider on horseback herding a flock of sheep across the parking lot of a Taco Bell, surveying the nearby wall of terracotta-colored cliffs. Farther back, beyond the parking lot, stood a fifteen or twenty foot tall windmill, its base attached to a wide metal basin, on which someone had spray painted the words, “Livestock Only.” After a few hours of sleep at the Navajo Nation Days Inn, I
took a late morning walk along the potholed pavement beneath the bluest sky. Parking lots broken by indomitable sage brush and host to flat beds of hay for sale as well as abandoned cars eventually succumbed to the surrounding arroyos and grazing terrain, dotted by flocks of sheep, encircled by teams of watchful sheepdogs. Low, dry mesas rose to the north of town, though I had no sense (yet) for the forests they concealed. Dominated by a non-human presence, the built landscape felt marginal, temporary. Outside a large, dome-shaped concrete building, a sign read, “Window Rock Sports Center: Indigo Girls Tonight.”

The evening’s show was in collaboration with Diné Citizens Against Ruining our Environment (Diné CARE), a reservation-wide environmental justice organization working at the tribal, regional and national level to transform tribal energy policy away from fossil fuels. They were at the forefront of a broad-based movement working to stop uranium mining on the reservation, to advocate for studies on the effects of radiation exposure and to pressure for clean up of the more than 1,000 abandoned uranium mines across the reservation, leaking radioactive contamination into the soil and water. By phone, I had met one of the group’s central leaders, Earl Tulley\(^2\), who acted as our advisor and primary local contact and I would finally meet him and his family in person. Our model of collaboration in this tour was to partner with a local group like Diné CARE and let them set the agenda for the political organizing surrounding the performance component of the shows; it was a model of trust and solidarity, recognizing the

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\(^2\) A note on names and aliases: Throughout the dissertation, I use actual names at times, and pseudonyms at other times for my research consultants. Given that the Navajo Nation is relatively intimate in terms of its social networks, individual identities may be easily recognized by their affiliations, even when pseudonyms are used. Many individuals consulted for this project are public figures, frequently on record (in public hearings, newspapers, community meetings, etc.) for their views on energy development.
knowledge and expertise of tribal members in defining a strategy for local and national change. The musical sets were interspersed with speakers – activists like Earl and Winona – who made the case for renewable energy in Indian Country as an alternative to the existing reliance on uranium and coal based economies. The tribal radio station, KTNN/AM 660 (“the Voice of the Navajo Nation”) arrived early at the show, interviewed the musicians and set up a live broadcast of the show, translating from English into the Diné language. When the doors opened at six that evening, teenagers, families, and elders rushed in, filling the rubber gym floor and metal bleachers, many asking, “Who are the Indigo Girls?” In this region, the band Indigenous was the headliner, with Jackson Browne and Indigo Girls as opening acts. At seven o’clock, Anna Frazier of Diné CARE welcomed everyone and introduced the goal of the show – to enjoy the music, and also to learn and organize around uranium contamination across the reservation. I passed a cardboard box through the crowd, collecting petition post cards addressed to U.S. Secretary of the Interior Gail Norton, calling for a moratorium on uranium mining on the Navajo Nation.

B. Second Arrival: Going Solo

Six years later, I returned to the Navajo Nation alone, having left the world of activist musicians and recently embarked on a doctoral degree in anthropology. Back in Window Rock, I noticed that the Navajo Days Inn had become the Navajo Nation Inn and new fast food restaurants, a bank, and a gas station had joined the Taco Bell. Horses and cattle still wandered across the highway and tumbleweeds got tangled in the axle of my rental car. The potholed pavement rippled with heat in the July sun. But unlike before, as
I drove across the reservation this time, I noticed the transmission lines. Scaffolding towers connecting heavy electrical cables cut through the landscape, running in a straight line as far as the eye could see, disappearing into the hazy horizon. Outside of the commercial center of Window Rock, I noticed few distribution lines: power on its way elsewhere, rather than power being distributed to the singlewide trailers and hogans scattered along the highway. Some of these homes had a small array of solar panels mounted on poles nearby, some had generators, and others appeared to have no electrical power at all, despite the network of transmission lines casting shadows across their yards on their way to distant substations. I started to see these conduits of energy as connectors with faraway places and people – other consumers, presumably – material legacies of the Nation’s export-based model of economic development.

I had pre-arranged to meet Earl at a hotel on the eastern side of the reservation, where he was finishing a conference with the Navajo Housing Authority, his employer. Walking out towards my car, he told me he’d taken “Navajo public transportation” to his meeting – he’d hitchhiked – so he’d be riding back with me and taking me on a tour of as much of the reservation’s 27,000 square miles as we had time for. I had come out this summer to see if Diné Bikeyah (Navajo land) would be an appropriate location for my dissertation fieldwork on energy politics in Indian Country. Earl was my guide and teacher, telling me jokes and old stories as we covered more than 1,000 miles in two days of traveling together across Arizona, southern Utah and New Mexico. We remembered

3 Hogan (or hóóghan, in the Navajo language) is the term used for the customary Navajo home, usually a single-story, dirt floor construction of log, plywood, or cinder-block. The dwelling has eight sides, small windows (if any), a central woodstove piped through the ceiling, and an east-facing door. There are many variations on the hogan, as well as female and male hogan designs, but this description applies to the majority of hogans visible across the reservation.
together the benefit concert we had co-organized in Window Rock in 2000. In the short time that had passed, the movement to stop uranium mining on the reservation had succeeded in passing the 2005 Diné Natural Resources Protection Act, the Navajo Nation’s moratorium on any new uranium mines. There were more projects on the horizon, however, and he convinced me to move out to Navajo Nation for my fieldwork, offering to help me navigate the bureaucratic maze of securing the necessary research permits to work on the Navajo Nation. Notably, despite being called “the most over-researched tribe” in North America (Deloria, Jr. 1988), the Navajo Nation exercises its sovereignty by requiring permits for all researchers working within the Nation’s geopolitical boundaries. By the end of our road trip, I had started to see the landscape differently – as a place that would become familiar as I made the Navajo Nation a temporary home.

C. *Third Arrival: Into “the Field”*

I arrived at Navajo to begin my official fieldwork in much the same manner of my initial encounter seven years earlier – at a benefit show in the reservation town of Shiprock. The event was put on by Indigo Girls and Honor the Earth to raise money and awareness about the newest energy development threat: a 1500-megawatt (MW) coal

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4 The fieldwork research for this project was reviewed and approved by the Institutional Review Board (IRB) at the University of North Carolina-Chapel Hill as well as independently by the Navajo Nation Historic Preservation Department (Class C Research Permit), in compliance with the Navajo Nation Code.

5 To give a sense of the massive electrical generation of 1500 MW, I offer some comparisons: To draw 1 megawatt of electrical generation capacity, ten thousand 100-watt lightbulbs or 5,000 computer systems would be needed. A 1500 megawatt power plant is large-scale, exceeding the average annual electrical consumption and production of many countries in the Global South. For example, Togo has an annual electrical generation of 10.3 MW, while Zimbabwe consumed 959 MW of electrical power in 1998. In other
fired power plant known as “Desert Rock.” I entered Shiprock’s new Performing Arts Center with the most intense sense of deja vú, noticing how the shiny new building contrasted sharply with the dustbowl landscape and mid-80’s housing developments surrounding it.

Shiprock is on the edge of the Nation’s northeastern geopolitical boundary, its indeterminate edges bleeding into the border town of Farmington, New Mexico. The organizers of the show had chosen this location for its proximity to the proposed site for Desert Rock, as well as to the off-reservation markets of Farmington and Santa Fe, New Mexico, and Durango, Colorado. Standing in the lobby, I saw reporters milling around and five or six “action tables” – folding tables erected by area organizations working on energy development, tribal government groups, and student groups. I felt torn and a little confused. It used to be my job to organize these volunteers and their tables, interface with local organizations and tribal leaders, and liaise with the media. But today, I had arrived as an ethnographer, to observe, record, and ask questions of people who were, and remain, my friends and colleagues. This anxious ambiguity became a hallmark of my fieldwork experience, and only years later can I understand the feeling as one of the hazards of embarking upon engaged research – and the re-alignments of subjectivity it demands – in networks in which one is already involved.

I immediately located the Diné CARE action table, greeted several women I was sure I’d met years ago, who told me Earl was on his way with his family. Reading their brochures and other handouts, I learned that their successful campaign in 2003 had

strata, the peak power output of a blue whale is 2.5 MW and one jet engine on a Boeing 777 aircraft outputs 75 MW.
provoked what became a 2005 tribal moratorium on uranium mining. Yet, that same year, the Desert Rock coal fired power plant was proposed, so their work with communities now focused on the life cycle of coal on the reservation – from mining to burning to ash. Another action table caught me eye – it was the group Doodá Desert Rock (“No” Desert Rock), led by a small cadre of charismatic activists who had made national headlines the previous winter with a road blockade and resistance camp in the New Mexico desert at the proposed power plant site, close to many of their homes. I noticed an impressive, three-inch binder full of news clippings, press releases, letters from supporters, and photographs of their work and collected their names and email addresses for follow-up. Their self-documentation made me wonder what I, the ethnographer, would bring to this widespread matter of concern.

Somewhat timidly, I made my way backstage before the show, to say hello to Winona and Indigo Girls Amy Ray and Emily Saliers, who I hadn’t seen in nearly two years. Earl arrived, ready to brief everyone on the latest news with the power plant proposal, tribal legislation, New Mexico state challenges, and a description of the dynamics of the local opposition. I learned that the show was following one of the event models I used to organize years ago: the musical performance would be followed by a “living room style” open question and answer session between the activists, musicians, and the audience. Diné CARE and Doodá Desert Rock leaders would take the stage, joined by Winona and the musicians. Fumbling inside my bag, I pulled out my shining silver Olympus digital voice recorder and made the first bold move of my newfound research career at Navajo: I asked if I could record the question and answer session for my research. To my great relief, everyone agreed.
For the rest of the evening, I was on the other side of the stage. I sat in a plush folding chair in the audience, gazing back at an event that in previous years, I helped create. I couldn’t ignore how this spatial re-alignment paralleled a more profound shift in my intellectual and political positioning. I had arrived this time as an ethnographer in “the field,” sensing what Peter Redfield and Silvia Tomášková have called the “displacement” or “exile” intrinsic to ethnography, disrupting “belonging with departure” (Peter Redfield and Tomášková 2003). However, what it means to be on the other side of the stage was, over time, not as clear as my initial discomfort with this spatial move suggested. Indeed, moving to sit with the audience and taking up the documentary devices of voice recorder and notebook signaled a re-alignment in my relationship to the problem of energy production on Native lands and to the people that championed new paradigms of development. At first, this move seemed to make me a spectator, gazing back at the drama on the stage, but upon further reflection I came to see this shift as a different mode of engagement, bringing different sets of questions to bear on the shared, core problem of development on Native Nations. Though no longer onstage or in the wings, I was not really one of the audience members, either. My “departure” was not a radical break, but a relative re-positioning within an existing network of relations.

D. Fourth Arrival: The Anthropologist’s Footsteps

The forty-five minute drive along Highway 64 leads from the town of Chinle in the center of the Navajo Nation (Apache County, state of Arizona) to the rural community of Tsaile/Wheatfields. The two-lane, open range road often has sheep, goats and horses ambling across, as it follows the north rim of Canyon de Chelly, climbing
1800 feet in altitude, shifting from desert canyon ecology to high alpine forest at the base of the Chuska Mountains. Known as Tséhíí in the Navajo language ("rock/canyon where the water flows"), the crossroads at the town of "Tsaile," population 2,044, is marked by a stop sign, with a Fina gas station on one corner and across the two-lane highway a boarded up, graffiti-covered singlewide trailer that used to be a trading post. I drove through this crossroads on my way to my fieldwork home for the first time in the cool spring of May 2007, yet unable to imagine how this crossroads would become a vital lifeline for my research and my material survival. The Tsaile gas station became my office, so to speak, a place twenty minutes from my home site, where I could park my truck in the parking lot, pick up a cell signal for making phone calls to organize interviews and other meetings, fuel my Jeep for research trips, buy overpriced, low-quality commodity foods, and stay abreast of the local livestock sales, shade-tree mechanic shops, country-western bands and rodeo schedules posted on the bulletin board.

As a non-tribal member and visiting outsider, there were certain restrictions (cultural and legal) on where I might live on the reservation. I needed to be invited into someone’s home if I wanted an ethnographic experience grounded in the everyday life of a family; otherwise, I’d be living off the reservation in Gallup or Farmington, or perhaps renting a room at the Navajo Nation Quality Inn in Window Rock. Through Earl’s support for my work, I was invited to live in the small community of Tsaile/Wheatfields with Adella Begaye, one of the founders of Diné CARE, legendary in activist networks because of the personal loss she sustained at the height of Diné CARE’s activism in the late 1980’s and early 1990’s to protect the forests of the Chuska Mountains from logging. Adella’s husband, Leroy Jackson, was murdered, it is said, for his outspoken leadership...
against the timber industry. His work, and the foggy details of his death, are recounted in John Sherry’s elegant ethnography, *Land, Wind, and Hard Words: A Story of Navajo Activism*, published in 2002 and based on his fieldwork during the early 1990’s (Sherry 2002).

John lived with Adella, Leroy, and their three children during the zenith of this struggle, collaborating closely with Diné CARE and establishing a manner of relationality between anthropologist and this particular community that would shape the way I was able to interact, know, and be with this family and community more than fifteen years later. John’s footsteps are deep in the Begaye-Jackson family, and I followed in his wake with a mixture of gratitude and trepidation. Though I had something of a fresh start; after Leroy’s passing, Adella moved back to her family’s original homestead in the Chuska Mountains, building an off-grid, two-story hogan-style home, with a wood stove and no running water, surrounded by sheep and powered by a small array of solar panels. Her homestead’s low carbon footprint was an intentional choice – a life project, of sorts – made possible by her employment as a public health nurse and greatly influenced by her life with Leroy as well as, as she once told me, by a “desire to be self-sufficient, living more like my parents did, being close to the forest.” I chose to live with Adella, knowingly entering a home of complex histories, because I had a strong intuition that I could learn a great deal from her and this place.

Having read Sherry’s book before arriving at Adella’s home, I moved in with an awkward, voyeuristic sense of uneven, intimate knowledge about her family and her past – read through the disciplinary lens of anthropology. I knew too much, it seemed, and she knew I knew – though in the year and a half I lived with her, we rarely spoke about all
that I knew. My relationship with Adella instructed me in the politics and philosophy of unspoken knowledge, in the vein of Diné philosophy recognizing the power of the spoken word to affect the course of events. But there was much else for us to discuss as Adella instructed me in the mechanics and materiality of living in a remote homestead: driving to the local well to haul water for the household; gauging the battery power on the solar system on a daily basis in order to make choices about energy consumption; finding the path to the outhouse in the middle of the night; listening to the dogs’ barking to know the difference between roaming sheep and roving coyotes; navigating the mud ruts on the ungraded dirt road and off-roading through the woods if the road was truly impassable; splitting logs for the wood stove; preserving food in iced-down coolers and the dormitory-sized mini-fridge in our kitchen; and perhaps most importantly, studying the weather carefully every day in order to make calculated choices about how I could travel, use electricity, or consume firewood or water. So although I followed in John Sherry’s footsteps – another anthropologist interested in environmental politics and grassroots activism – I arrived in a different historical moment, in a new location. Adella’s mountain home, two miles off the main road, backed by pine-covered buttes and facing a meadow where her sister’s sheep grazed, was her retreat from Chinle where she worked at the hospital, to a place where silence and solitude structured all aspects of everyday life.

E. “Every Navajo has an Anthro”: Renovating Anthropological Engagement

It should now be clear from these arrival stories that I did not come to “the Navajo” by way of anthropology; rather, I came to anthropology by way of my activism with Native communities. This is an important distinction for at least two reasons: first,
given the fraught history of anthropology in Native America, opting to work on/with a Native Nation carries a politics of knowledge production and difference that shapes what is possible (knowable and actionable) in many encounters. Second, I formulated my sense of the problem of energy development on the Navajo Nation by way of a collective: through my engagement in a diverse, national environmental/social justice movement. That is, I did not formulate the problem from an ethnological or area studies interest or even in ethnography, as a practice. Starting with the problem of energy development on the Navajo Nation rather than “the Navajo” as a population of inquiry, kept my compass set on the shared matter of concern amidst the shifting sands of collaborative engagements.

The significance of this shift from a people to a problem can be read through the surprise of critically minded peers. For instance, when a senior graduate student colleague wryly joked, “What? Your research is on the Navajo? Haven’t you heard, anthropology doesn’t do that kind of thing anymore!” I realized I was enmeshed in a history not of my own making, but which profoundly shaped the epistemological assumptions underlying my work and the political implications of any project “on” a

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6 This dissertation is thus a punctualization (Latour 1991) of years of collaborative work, ongoing conversations, personal turning points, my exposure to transnational networks of energy activists, and the histories of anthropologists before me. The many erasures inherent in punctualized processes haunt my work. I am fully aware that many actors and events bracketed out of these pages in order to construct a cogent narrative in fact made this project possible. Yet, the power of punctualization, as Bruno Latour demonstrates, is its ability to make certain “truths” real and durable. In that sense, I offer this partial perspective on energy politics on the Navajo Nation as a contribution to the movement that helped position me to do this work. It should be clear that my interest in the politics of energy development on the Navajo Nation is simultaneously an organic outcome of these four arrivals and their attending relationships and at the same time, a punctualization of these same engagements; that is, the very network of actors that helped usher this project into being and think with me about its core themes do not “sign” this project, in the end. For this reason, many of the chapters that follow foreground the voices of my colleagues and consultants – a modest gesture toward a polyvocal text.

7 Years later, I am grateful to my colleague Eduardo Restrepo for this productive provocation.
Native Nation. Especially, perhaps, “the Navajo.” A couple decades before John Sherry’s arrival into Adella and Leroy’s family, Native critic Vine Deloria, Jr. called the Navajo the “most over-researched tribe in North America” (Deloria, Jr. 1988).

And Adella was not the first of her family to inform anthropological research, either. Her maternal grandfather, Curly Mustache, was a philosopher and medicine man, informing a number of anthropological and philosophical works with his ceremonial and medicinal knowledge (McNeley 1981; Farella 1984). A framed portrait of Curly Mustache hangs on the living room wall in Adella’s home, just above and to the right of the cast iron wood stove, his dark eyes and bushy grey mustache greeting anyone who enters the hogan’s east-facing front door. Sherry writes about this same portrait, when it hung in Adella and Leroy’s duplex in town, where he lived with them during his fieldwork in the early 1990’s. In his book, Sherry also notes the influence of this “Navajo Aristotle” on contemporary anthropological research, recognizing the inability of Western epistemological categories to account for Curly Mustache’s diverse and integrated knowledge (Sherry 2002, 34). He and I have both looked into Adella’s and anthropology’s past through this same, watchful object. This particular Navajo family’s multi-generational interaction with anthropologists would seem to confirm Deloria’s more famous quip, “every Navajo has an anthro” (Biolsi and Zimmerman 1997). Except in Adella’s case, it’s two anthros.

Yet, Deloria’s witticism, however apt, cannot account for the complex relationality and histories of these engagements. I found that the portrait of Curly Mustache silently observed me, the anthropologist, studying my comings and goings, witnessing my frustrations as I struggled to start a fire, stumbled in the dark, or
mispronounced simple Navajo words. In a similar reversal, Sherry’s collaborative work with Diné CARE, especially during a time of crisis, cultivated trust and respect, creating high expectations for any future ethnographer’s collaboration with members of this community. These surprising reversals of the well-worn trope of the intruding anthropologist turned my own expectations upside down; while anthropology has been greeted like a scarlet letter in many Native communities for its many extractions (laying the foundation for Deloria’s critiques), in this home and intimate network, it was a sign of reverence for traditional knowledge as well as a particular kind of (activist) engagement. John’s legacy established expectations for my own collaborative posture, enabling as well as constraining my own position, generating moments of synergy and friction.

I situate this project, with Sherry and others, as part of a new kind of engagement of anthropology in/with Native America and yet, where the mode of engagement is not prefigured or altogether clear cut. The hope, articulated by Orin Starn more than ten years ago, to “reinvent anthropology by embracing values of accountability, activism, and engagement” (O. Starn 1999, 7), continues to be tested through various modes of contemporary ethnographic practice. And yet, how to achieve “accountability” (to whom? for what? and when? we might ask) remains a pursuit with no guarantees. For those like myself, who have come to anthropological problems from our work with environmental/social movements, we cannot assume that the politics of our work is self-evident or ensured by our prior associations.

With that said, I understand energy development as a material practice linking producers with consumers through silent and invisible conduits of power, though excruciatingly intimate ways. This understanding is precisely what made it impossible for
me to design a research project devoid of any consideration of action or politics. I entered and left the field convinced of the devastating effects of coal mining and coal burning on human and non-human life. After hearing many sides of the argument, my stance has not changed. Yet, my project was not about determining whether coal power was “good” or “bad” in itself, or proving the moral superiority of wind or solar power as the posited alternatives. However, what I could explore was what Nonini and Holland call the “moral logics” of coal and its attending actors (Nonini and Holland 2009; Wilson and Holland 2009). In what ways was coal (and wind and solar) development a formative site for negotiating ethics, identities, and the future? Who participated in these negotiations and with what access to power? I was among those participants – involved in these conversations long before I entered the field, due to my historic relationships with certain Navajo community members and other leaders in the national environmental justice movement.

In 2003, the year I started graduate school, the Navajo Nation Tribal Council signed an agreement with a German company to develop a 1500-megawatt coal-fired power plant on the Eastern side of the Navajo Nation. This proposed development project, the Desert Rock Energy Project (“Desert Rock”), quickly became the central energy development controversy on the Nation and in the greater Four Corners area, launching a diverse movement and counter-movement of energy activists in which Diné CARE took center stage. Thus, I had an invitation from a longstanding friend and colleague to further engage in the “crowded field” of action and research on the problems

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8 The “Four Corners” region refers to the geographic area in which the “corners” of the four states of New Mexico, Colorado, Utah, and Arizona meet. This area crosses into and is contiguous with the northern border of the Navajo Nation.
of coal and possibilities of wind and solar power shaping grassroots and governmental politics across the region. To my surprise, my research crystallized around the emerging Desert Rock controversy even when I tried to move away from it. It had the power to draw people into it, from anthropologists to artists, even while “it” was nowhere to be seen. As an unpredictable, still unfolding controversy, Desert Rock thus became the fulcrum through which I would come to understand how landscapes of power were being shaped, through energy technologies, on the Navajo Nation.

This dissertation is an attempt to contribute to a problem (toward its resolution) by working alongside a movement in a shared matter of concern. It is not a report on collaboration – past or present – nor is it “about” collaboration or a social movement. I ruminate on engagement here, and at other moments in the dissertation, but aim to do so in a way that opens its possibilities and does not assume, in advance, to know in which direction it will move. I see this project as a very modest contribution to a movement of which I am still a part and which, as the research proved, is much more dynamic, populated, transnational, and polyvocal than I originally imagined it to be. The dissertation is an academic project emerging from a research experience that was hybrid, involving multiple collaborations and related engagements along the way, many of which do not appear in the chapters that follow. My purpose in this undertaking is to make a contribution through description and analysis of but a fraction of the issues surrounding energy development on the Navajo Nation, from my grounding in the movement but considering other voices and stakes, as well.

II. The Desert Rock Energy Project: Defining the Problem
This dissertation examines the cultural politics of energy development on the Navajo (Diné) Nation in the Southwestern United States (Arizona and New Mexico) through an ethnographic study of Desert Rock, a coal-fired power plant proposed by the Navajo Nation government. Since its initial proposal in 2003, the proposed plant has spawned widespread controversy both among tribal members and in the greater region, despite its unbuilt, emergent status. This dissertation follows the actors engaged in this debate, showing how Desert Rock became a fulcrum for urgent negotiations of Navajo identity and indigeneity, sustainable development, tribal sovereignty, and expert knowledge. I argue that these dynamics constitute landscapes of power, where Navajo people understand their region in large part through the political history of energy minerals; negotiate difference (ethnic, gender, and epistemic) through engagements with infrastructure and ecology; create a space for cultural artifacts that envision the effects of energy development on Navajo lands and bodies; contest and articulate particular meanings of sovereignty; mobilize expertise and new practices of knowledge production; and finally, forge new ethical subject positions vis-à-vis debates over technology and the environment. Showing how legacies of extraction on the Navajo Nation are both material and epistemological, the dissertation puts the politics of energy into conversation with the politics of knowledge production, especially as these bear on contemporary anthropological practice. Effectively, the contested technology generated an enduring legacy for the future of energy policy and activism on the Navajo Nation and greater Southwestern region.

Energy politics is a way to understand broader concerns over the colonial conditions and wider landscapes of power facing the Navajo Nation today. Tracing an
urgent matter like the Desert Rock Energy Project (Desert Rock) is useful, epistemologically, methodologically, and politically, because Desert Rock is a fulcrum for these broader, longstanding issues of energy development and an object summoning diverse expressions of energy activism. Desert Rock’s significance, however, must be read through the negative space it occupies; that is, as a proposed and emerging energy project not yet built, it has not materialized and therefore, poses equal, opposing possibilities of utopia and dystopia. I argue that Desert Rock is an emergent object, forming and transforming the present, even while its future remains contested and uncertain. The work the emergent object does – as a present absence – is productive, generating new landscapes of power in ongoing struggles, which while on the surface appear to be debates over specific technologies, upon further consideration reveal a range of cultural and political concerns are at stake. In particular, Desert Rock produces a space for negotiating new meanings of tribal sovereignty and new politics of place; a space for creating cultural artifacts that envision the effects of energy development on Navajo lands and bodies; and finally, a space for contesting expertise and generating new practices and politics of knowledge production. Finally, despite facile pairings of “the indigenous”

9 I am informed here and throughout my discussions of space, place, and emergence by Sally Marston and colleagues’ critical rethinking of the terms (Marston et al 2005). Marston et al deploy a concept of space and geography that does away with earlier conceptions of “space” in human geography, theorizing along the lines of “place” and “flat ontologies” instead. As the authors note, whereas the concept of space has dominated human geography literature, its dependence on an imaginary of verticality and layered scaling has distorted or stunted an ability to see other ontological possibilities. Turning to “global flows” or a “flow-based ontology” does not go quite far enough, they argue, to do away with the persistence of scalar thinking, allowing scalar concepts to slip back into this particular formulation, erasing blockages with an over-emphasis on fluidity (2005, 423). The “flat alternative” proposed by Marston et al draws in various ways from work in STS, especially STS’s argument for the intermingling and co-production of “nature” and “the social” and STS’s sub-field Actor-Network-Theory, which emphasizes materiality, as well as the unpredictability of and work to be done in producing specific, situated assemblages (see Latour 2006). In this framework, a site is not predetermined but “is always an emergent property of its interacting human and non-human inhabitants” (Marston et al 2005, 425, my emphasis).
with “the environment” Desert Rock creates an opening in which a politics of difference emerges that is irreducible to “ethnic identity.” Taken together, Desert Rock activates memories, imaginaries, and materializations of different landscapes of power on the Navajo Nation, contributing to an enduring, “figured world” of energy politics in Native communities.

III. Theoretical Framework: Landscapes of Power

“Since we don’t know how things will turn out, it’s worth attending to states of emergence – and emergency. Here hope and despair huddle together, sometimes dependent on the same technologies. Urgency springs up in ruined landscapes; utopian dreams, and crass ambitions, are formed” [my emphasis].

Anna Tsing, *Friction* (2005)

I use Anna Tsing’s pairing of emergence and landscapes to theoretically orient the problem of energy development on Native lands and on the Navajo Nation, in particular. Tsing’s notion of “hope and despair” being mutually constitutive and often technologically dependent has indeed borne out in the controversies surrounding energy development on the Navajo Nation (Tsing 2005, 269), as we will see in subsequent chapters. In what follows, I use the concept of landscapes of power to layout the problem of energy development in Native America and on the Navajo Nation, in particular. Tacking back and forth between a theoretical discussion of the notion and an historical description of the problem, my intent in this approach is that the theoretical foundation be seen through the problem and vice versa, rather than one being given primacy over the other. This approach recognizes that how we construe a “research problem” depends
largely upon our epistemological framework and political orientation. That is, social
theories are also landscapes of power. Therefore, I bring the problem and the framework
into conversation in this section, aiming to show how a landscape of power is at once a
concept and a terrain of struggle.

First, I introduce my notion of landscapes of power, which relies upon (a) three
valences of power, (b) an understanding of indigeneity and the energy-development
nexus, and (c) the conversions and circulations of power that have historically
“developed” the Navajo Nation. Next, I move to discuss the actual, material landscapes
of power shaping and being reshaped through energy development challenges and
opportunities facing Native Nations and the Navajo Nation, in particular. The next
section offers an exploration of interdisciplinary theories of emergence informing my
ontological and methodological approach to proposed energy development projects and
to Desert Rock, in particular, the controversial power plant around which the
dissertation’s narrative is built. I then propose this project as an anthropology of energy,
where the problem of energy development produces particular socio-cultural worlds.

Finally, I conclude this discussion of theoretical foundations and the problem of
energy in Native America with a summary of the dissertation’s core argument. In doing
so, I situate these theoretical foundations within my methodological choice to follow a
particular controversy as a way of understanding energy politics through a contemporary,
urgent, highly politicized technological actor. The Desert Rock Energy Project,
introduced fully in Chapter III and traced in Chapters IV, V, and VI, is the object,
calling once again upon Tsing’s “emergence,” “emergency,” “urgency,” and “utopian
dreams,” driving the action in this ethnography of energy.
A. Landscapes of Power

(1) Power's Polyvalence and Political Ecology

The collaborative work that took me into Navajo, Goshute, Anishanaabe, Yakama, Zuni, Menominee and Lakota landscapes and communities brought me face-to-face with the ongoing legacies of extractive industries and their cultural political\(^{10}\) effects on Native Nations. My engagements – as an activist and then an anthropologist – led me to see these struggles as simultaneously place-based and global.\(^ {11}\) That is, these struggles are produced through and operate in relation to different landscapes of power, offering a framework and metaphor for understanding the polyvalence of “power” present throughout this dissertation. On the Navajo Nation, but with possible generalization to other rural, indigenous territories, landscapes are produced through extractions, conversions, and circulations of power in intricate ways. Navajo territory has been among the most-targeted in the U.S. for subsurface mineral extraction while at the same time it holds the potential for extensive wind and solar development, and finally, has spawned a network of development-related critical movements – governmental, inter-governmental, and trans-governmental.

\(^{10}\) I use “cultural political” here and “cultural politics” elsewhere in the dissertation in the sense proposed by Sonia Alvarez et al as well as Richard Fox and Orin Starn (Alvarez, Dagnino, and A. Escobar 1998; Fox and Orin Starn 1997). In sum, theirs is an approach to social movements that moves beyond (and in between) “resistance and revolution” to foreground concerns over identity, cultural practice, meaning-making, and other realms of mobilization.

\(^{11}\) This dynamic of place-based and simultaneously global struggles can be thought of in the Latourian, flattened topographical sense in which, like his example of a railroad, “all points are local” (Latour 1991, 117). But this can also be thought in terms of “place-based globalism,” (Osterweil 2005), especially because I was recognizing situated struggles within global social/environmental movements concerned with circulations of production and consumption within wider economies of power.
As a metaphor, *landscapes of power* suggests a way of seeing and thinking about territory through its histories, stories, subterranean and surface actors. Native Nations in the U.S. have faced a parallel experience of being targeted with intensive extractive industry due to many Native Nations’ rich mineral deposits, but at the same time, creating and sustaining social movements (at the non-governmental and tribal leadership levels) which not only critique this industry, but work to produce and promote different conceptualizations of development, environments, modes of expertise, identifications, and visions of the future. These energy debates are, I maintain, spaces of negotiation and deliberation in which the technologies at stake (fossil fuel technologies versus wind and solar technologies) become virtual proxies, or fulcrums, for more fundamental, cultural contestations. In this way, I use *landscapes of power* as a framework for thinking about places and populations as sites of action and possibility, and for thinking simultaneously of natural resources and the socio-historical and cosmological relations with which they are intimately connected.

Thinking and seeing the Navajo Nation as multiple landscapes of power allows for thinking of power in (at least) three dimensions: (1) power in a material, or subterranean sense; (2) power in a cultural-political sense; and (3) power as the sacred or cosmological. In the first sense, landscapes of power refers to the subterranean, energy mineral resources convertible into work, through a series of extractions, conversions and circulations and the built environment required for the processing of these resources into electricity, or other forms of fuel. Coal, uranium, and oil are the primary agents in this energy history, with the markets of the greater Southwest, financiers on Wall Street, and the transnational networks with Pueblo, Apache, and other Southwestern Native Nations
being the human relations in which these extractions, conversions, and circulations have meaning. For instance, the recent history of strife between the Navajo and their neighbors, the Hopi, is widely attributed to disputes over land and coal resources; many argue that coal companies and their spokespeople have produced much of this antinomy by staging conflicts that pit these communities against one another, redirecting focus from the “external” forces of market capitalism and federal trust responsibility culpable in this disharmony (Redhouse 1985; Brugge 1999; Benedek 1999).

In this, the power of mineral resources quickly converts not only into electricity for export, but also travels into conduits of cultural political human interaction, the second sense of my understanding of power. This conversion from the material power of “nature” into the cultural political power of “culture” frequently generates conflict, often reorganizing territorial boundaries and challenging indigenous claims to specific identities and places. Such are the circulations and interpenetrations of these first two senses of power: mineral resources and energy infrastructures transform into cultural political stakes, securing and destroying alliances, generating grassroots and electoral politics, challenging overlapping jurisdictions and sovereignties, and affecting bodies on more intimate, everyday scales. In sum, intimately linked with the first, this second dimension of landscapes of power is the realm of human interactions, struggles, and potentialities negotiated in sociocultural practice.

In addition to the mineral (subterranean/non-human) and the cultural political (terrestrial/human) domains of power, the third sense in which I understand power to operate in Navajo landscapes of power is as sacred, or cosmological power. As many others describe in great detail, the Diné landscape is imbued with powerful stories,
places, and practices that, together, render particular places sacred – both by official recognition in tribal policy as “sacred sites” and also in everyday practice among tribal members (Kelley and Francis 1994). The Nation, as a political entity, pictures this sacred power in its tribal seal, depicting the four sacred mountains encircling Diné Bikeyah, the rainbow on which the deities travel, and the cornstalk, or reed, through which the five-fingered beings (humans) traveled into this Fifth, or Glittering World. Canyon de Chelly is the home of the deity Spider Woman, who taught the Diné how to weave, and also harbors the memories of thousands of people who hid, and died, during the U.S. war against the Navajo in the 1860’s. Even many tribal members who follow Catholic, Protestant, Native American Church or other religious practices know about the sacred power of specific places such as these, as well as more seemingly mundane sites – such as trees struck by lightening – demonstrating how electrical power itself connotes the cosmological.

The Navajo word for “electricity” is atsínlį́sh, which is alternately used to describe “lightening”. Yet like many aspects of Diné life, its power is evident through its silence. People rarely speak this word aloud, because to utter it could be an act of invocation, bringing bad things on their families. So rather than use the term for lightening to talk about electricity, people will speak of “copper,” béésh lichíí’í (meaning “red metal,” to be more exact), whose power is benign. The power of electricity is indeed dangerous, revered and sacred. In Diné cosmology, any object struck by

12 Translations by Kristina Jacobsen, my colleague in anthropology, supported by materials in Martha Jackson’s Navajo Language course at Diné College, Tsaile, Arizona. I am also grateful to Kristina for helping me think through the resonances of power embedded in Diné lightening stories, to the extent that we are permitted and able to comprehend them.
lightening is something to beware and keep at a distance. In the Chuska forests surrounding Adella’s home, tall pine trees are often struck during August’s heavy thunderstorms. These trees are then left to die and collapse alone, too dangerous to be taken down and harvested for firewood. Lightening, like wind, rainbows, and the sun, holds sacred significance in Diné cosmology, and can be communicated with only by select individuals who make proper recognitions. But those stories – their power further evidenced by their silence and selective telling – are not part of the knowledge to be shared here.

There are multiple other embodiments of this kind of sacred power throughout the Navajo landscape which exceed discussion here – both substantively and ethically – but which inform this third, and crucial register of power at work in these polyvalent landscapes of power. Understanding the Navajo Nation through these distinct, yet interdependent landscapes of power helps make visible how the politics of place is co-produced materially and figuratively. This introduction sketches the contours of the landscapes of power constituting the Navajo Nation, setting the stage for the theoretical and methodological orientations of the dissertation project and an outline of the chapters that follow.

Finally, other scholars who work to describe and understand the intimate correlations between fossil fuel resources, Native territories, and broader socio-political formations inspire my landscapes of power framework. Particularly informative is historian Todd Andrew Needham’s explanation of how multiple “geographies of power” converged to build the modern, urban Southwest, with metropoles literally powered by energy resources from tribal lands. Such extractions, in turn, inspired a series of political
movements (tribal and grassroots) that redefined Navajo nationalism (Needham 2006). Needham’s detailed attention to the co-eval entanglements of political leadership and mineral extraction are instructive for my project, as is his discussion of the uneven development and subsequent “redevelopment” of the Navajo Nation as integral to the political economic project of building the greater “Sunbelt” cities of the urban Southwest. In many ways, my project is an ethnographic offshoot of his historical work, building upon the histories of Navajo coal mining and its variegated responses, which he so thoughtfully renders.

Needham’s metaphor of place counters another “geography” framework chronicling the Southwest. In her study of the effects of nuclear science on the American Southwest, Valerie Kuletz uses the framework “geographies of sacrifice” and “geographies of the sacred” to discuss the landscapes that have been used as sites of production, testing, and storage for nuclear weapons and radioactive nuclear waste, while at the same time constituting active sites of meaning, memory, and cultural survival (Kuletz 1998). Hers is an examination of the cultural politics of energy development and the “quiet crisis” borne by the largely indigenous inhabitants of these nuclear landscapes, illuminating how different perceptions of the environment are constructed and contested through specific narratives, rendering a place knowable as either a “wasteland” or a place of “origin and emergence, holy, and sacred,” and what might be required to transform such understandings (Kuletz 1998, 13-14). Others working at the intersections of anthropology, political ecology, science and technology studies, and Native/indigenous studies broadly construed instruct my understanding of how landscapes are produced in the Native Southwest, in relation to energy resources, although the majority of these
projects consider uranium and its technologies of security, danger, radiation, global power, and local struggle (Ishiyama and TallBear 2001; Masco 2006; Johnston 2007; Gusterson 1996; Benally, Brugge, and Yazzie-Lewis 2006). While there is a body of landscape theory cross-cutting the sub-fields of anthropology, and beyond, I am primarily interested in approaches to landscapes that make power the center of analysis in questions of “nature,” attending in particular to questions of difference and knowledge production.

Foregrounding questions of power, difference, and knowledge, such approaches to landscapes (and “territories,” in other terms; see Escobar 2009) fall within the broad, interdisciplinary field of political ecology, the study of “ecological distribution conflicts” (Martínez Alier 2002). In recent years, the field of political ecology has itself become a landscape of political philosophies, opening up the idea of “nature” rather than taking it (or “ecology” or “the environment”) as a given; and at the same time, recent turns in political ecology insist upon the inclusion of “culture” in understanding what are supposedly environmental conflicts. In Bruno Latour’s sense of political ecology, for instance, we reinvent ontologies and epistemologies of nature by considering multi-

naturalisms as much as we have now become accustomed to accept multi-culturalisms as a premise (Latour 2006). In Latour’s analysis, this problem arises from what he calls the “Modern Constitution” – our political bifurcation of “nature” from “culture” – that lays at the foundation of our conception of what constitutes “science.” In order to do a different kind of political ecology that does not take “nature” for granted as a prefigured, unified totality, we must recognize this Constitution and, taking a social practice theory
approach, begin to recognize the many “imbroglios involving sciences, moralities, law, and politics” that inhabit our world (2006, 231). This repopulating of nature requires that we do not attempt traditional “representations of nature” and instead, we “accept the risk of metaphysics” (2006, 232).

In this sense, a metaphysical, or “postconstructivist” political ecology (Escobar 2010) moves beyond the notion that nature or the environmental is always “constructed” vis-à-vis human perception and practice. This turn multiplies nature and emphasizes relationality, arguing for new ways of being, knowing, and doing in the human and non-human worlds we participate in. But it also makes an ontological shift, accepting the possibility of multiple natures at the same time anthropology has long recognized the multiplicity of cultures. In the words of Isabelle Stengers, this kind of political ecology tugs at the edges of conventional theorizing, aiming instead to “arouse a slightly different awareness of the problems and situations mobilizing us” (Stengers 2003, 994). She clarifies:

Political ecology affirms that there is no knowledge that is both relevant and detached. It is not an objective definition of a virus or of a flood that we need, a detached definition that everybody should accept, but the active participation of all those whose practice is engaged in multiple modes with the virus or with the river … How to turn the virus or the river into a cause for thinking? (Stengers 2003, 1002).

Such an emphasis on difference and epistemology marks this recent turn in political ecology, expanding our sense of the analytic and material terrain at stake, wherein so-called “ecological distribution conflicts” are also always seen as economic and cultural problems (see Escobar 2008, 13). I locate my landscapes of power approach

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13 As a broad arena of theory, I understand practice theory as it has been developed by Dorothy Holland and colleagues, building upon the foundation of Mikhail Bakhtin (Bakhtin and Holquist 1981; Holland and Lave 2001; Holland et al. 1998).
within this “re-imagined” (Biersack and Greenberg 2006) terrain of political ecology, in which “things” (rivers, infrastructure, sun, wind, coal, and the landscapes of power in which they are situated) are the common problems around which people assemble to work out a politics of nature driven both by the urgent needs of the moment as well as longstanding philosophies and relationships with those places and things in question. Two additional parallel moves here are, one, an emphasis on *place* and place-based struggles as a corrective to world systems and globalization perspectives on political ecology (Escobar 2008); and two, an emphasis on the formation of *identities and subjects*, often erased or omitted from earlier political ecology approaches (see Holland, Satterfield and Lachicotte 2002).

One significant ethnographic example of work at the intersection of landscapes and political ecology is the work of Hugh Raffles, who shows how landscapes are historical and “natural” only in the sense that they are the products of human-environment interactions, always being made and remade but never outside of uneven relations of power (Raffles 2002). His work on the colonial construction of the Amazon and its waterways is particularly relevant, as it demonstrates how landscapes are produced both locally and from a distance; colonists trafficked “New World” plant and animal species back to Europe, generating “American” landscapes in English gardens and other collections, and in turn, rearranging the non-human life of the Amazon basin, in the process. His concern for the multiple and “densely constituted worlds” that are condensed and termed “nature” demonstrates an ontological framework of multiplicity and becoming, enlivening landscapes with considerations of power and difference (Raffles 2002, 6). This moves us far beyond the “human built worlds” approach to landscapes,
which – however crucial in rethinking technology – privileges infrastructure, rational design, and “culture” as distinct from “nature” (Hughes 2004).

Raffles’ approach to landscapes further emphasizes the importance of practice theory in landscape-making, historicizing landscapes, their diverse inhabitants with their diverging interests, and the historic dynamics of power that converge in their production. Through intimate social practices (which, he notes, include the practice of researchers in these places), he sees a “co-production of people and landscapes,” drawing our attention to how “nature” (in all its multiplicities) inhabits and shapes humans as much as the other way around (Raffles 2002, 38). This is, in the end, a concern with ontology; asking how “Amazonia”, as such, came into existence informs my approach to other contemporary social formations, such as the Navajo Nation, as a population, landscape, and political body.

At another (though perhaps not so distant) edge of political ecology, Tim Ingold argues that the “temporality of the landscape” is the place where anthropological theory and archaeological theory touch one another (Ingold 1993). Ingold’s approach to landscape uses phenomenology, arguing that the human-environment interface, mediated through landscapes over time, is contingent upon experience and perception – what he describes as a “dwelling perspective” (Ingold 2000). This perspective historicizes the landscape, seeing landscape as “an enduring record of – and testimony to – the lives and works of past generations who have dwelt within it, and in doing so, have left there something of themselves” (Ingold 1993, 152). Ingold, like Raffles, attends to the intersubjective nature of “nature,” the role of experience and everyday life, and human practices, which he theorizes through the analytic of “skill.” Both Ingold and Raffles on
another register offer ways for situating indigeneity in landscapes of power that takes seriously the historical difference of Native peoples, while pushing beyond essentialist notions of identity (see Ingold 2000, chapter 8). Finally, as the quotation at the outset of this section suggests, I am motivated by Anna Tsing’s approach to landscapes, which emphasizes how discourses like “environmentalism” circulate globally, transforming human-environment interactions as they are translated into practice in culturally and geographically particular locales. This introduces an element of identity into landscape theory, showing for instance how engaging in “environmentalist” practices in Indonesia calls upon imaginaries of environmental activities (i.e., hiking and backpacking), that travel from other locales. The “friction” of these translations is productive, however, creating new landscapes – discursively and materially – out of these circulating images.

My use of landscapes of power makes a theoretical and political attempt to reframe the agency of actors away from being victims of enclosures and other scientific practices, and toward their potentialities as innovators of new epistemologies and politics of energy. In this sense, “power” and the “energy” it connotes, encompasses this pairing of theory and action, bringing ethnographic attention to ontology and practice in energy development.

(2) Indigeneity and the Energy-Development Nexus

As some argue, many Native sovereignty movements in the U.S. have articulated with environmental concerns, especially when tribal territories become sites for commercial nuclear waste storage, military pollution, oil exploration, logging, disposal and storage of toxics, dam construction, mining, and precarious harvesting rights. Responses to extractive industries have varied among different Native Nations’
governments and tribal grassroots efforts, two sectors of political action often more intertwined than adversarial. While many Native Nations embrace such development projects (i.e., coal development on the Cheyenne Nation in Montana), others – or the same Native Nations at other moments – resist energy projects in the name of sacred site protection, environmental degradation, and sovereignty rights (i.e., the Navajo Nation’s 2005 moratorium on uranium mining). In other cases, the Nation itself becomes politically and socially fractured as it negotiates an energy proposal, the possibility of economic gain vying for dominance over concerns of health and environmental impacts.

I join a growing coterie of scholars working to trace some of the global circulations and manifestations in everyday life of extractive industries, processes that also transport “myths and machines of globalized modernity: instant infrastructure, contractual and arbitration regimes, state power, dreams and schemes of limitless wealth and ‘development,’ often paired with ecological and social nightmares.” However, while most of this nascent scholarship on extractive industry focuses on the geopolitical alterity of the “global south” – postcolonial places of imperial demise – my attention is on processes and places of colonialism in the contemporary United States: indigenous

14 Here I refer to two recent conference sessions as indicators of the emerging critical scholarship on energy. First, and in the quotation in the text above, I refer to an abstract entitled “Resource Extraction and Circulation: Expanding Anthropological Perspectives,” submitted by Jacob Campbell (Univ. of Arizona) and Hannah Chadeayne Appel (Stanford Univ.) to the American Anthropological Association annual meeting, November 2010. Second, at the Energy and the Social Study of Technology conference (Trento, Italy), one theme addresses “Energy Use in Everyday Life,” calling for papers that address “energy use in relation to life style, activity pattern, embeddedness,” and so on. This is part of the burgeoning anthropological research on energy, particularly among scholars in northern Europe.

15 Regarding my choice to speak of “colonialism” instead of “postcolonialism” in general: While a few use the term “postcolonial” to describe Indian Nations in the U.S., arguing that postcoloniality in the United States does not indicate a temporal moment at the end of colonial rule and colonialism, but rather signals the consistencies, contingencies, fissures in colonization and decolonization (Bruyneel 2007) most scholars and activists working in Native America speak instead of the “colonial” or “neo-colonial” conditions. While postcolonial theory (coming from Subaltern Studies and the South Asian context, primarily)
nations at once remote from and intimately interconnected with the state, their ambiguous hybridity as dual citizens shaped by political, legal, cultural, and historical difference. Tracing energy infrastructures and the humans they engage, reveals these interdependent landscapes of power, illuminating the intimate, material flows and conversions of power necessary for the production of what I, among others, consider to be the ongoing colonial, and neo-colonial conditions facing Native Nations today.

Thus as a nexus where colonialism can be understood, and challenged, energy plays a pivotal role in shaping the history of Navajo peoples’ relations with the state, their own tribal government and the larger, trans-local Southwest region (Needham 2006). It also figures prominently in the Navajo Nation’s emerging present and indeterminate future. Complex layers of law and sovereignty, geopolitical borders, memories, identities, and new cultural productions depend upon energy to do their work in shaping contemporary Navajo experience, with energy shaping how each arena is understood and co-produced by both Navajo and non-Navajo actors. This study thus considers the greater complications of this energy-development nexus, following one particular controversy over a proposed coal-fired power plant as fulcrum, and method, for understanding the broader, complex landscapes of power.

theoretically informs a great deal of Native American and Indigenous Studies, most agree it is not an accurate or useful historical descriptor of the conditions facing Native Nations today, given that the U.S. is a settler-state in which the settlers still remain (Denetdale 2007; A. Smith 2005; Dennison 2008; Simpson 2000). Moreover, stressing “colonialism” and “neo-colonialism” is a political choice, to sway the emphasis away from a body of theory (postcolonial studies) and toward an historical formation of power that persists – though in less obvious ways – into the present. As Ella Shohat notes, we ought to be wary of the term “postcolonial” in its “ahistorical and universalizing deployments, and its potentially depoliticizing implications” (Shohat 1992, 99). At the same time, I recognize that in many ways, conditions facing Navajo are both colonial and postcolonial – at well as neither, at once. Some shifts in terminology throughout the dissertation speak to these ambivalences. I am grateful to Jean Dennison and Orin Starn for helping me think through meanings of these terms.
In the United States, it is estimated that 8% of all coal and 21% of strippable coal, 11% of uranium, and 3% of oil comes from American Indian reservation and trust lands.\textsuperscript{16} Despite some disagreement in these numbers, the real significance of these lands and resources “does not lie so much in absolute size but rather in quality and location. For example, most Indian coal is strippable at low mining cost and has low sulfur content. It is strategically located near western and southern markets” (Ruffing 1980, 51). This distinction makes Navajo coal relatively easy to access geologically and financially, it burns with less emissions than high-sulfur coal, and is positioned for export to off-reservation sites of consumption. And yet, the communities living on the front lines and encountering the everyday effects of fossil fuel extraction are often under-represented in these discussions. Recent international attention to Bolivia’s indigenous movements and emerging lithium reserves (Wright 2010) as well anthropological attention to oil exploration in Ecuador (Sawyer 2004) and gold mining in Peru (de la Cadena 2010) show how indigeneity is articulated in relation to extractive industries in Latin America. Yet in the United States, much less work has been done to make visible the interpenetrations of mineral and socio-cultural power transforming Native Nations.

However, since indigeneity in the U.S. has long been figured in relation to the earth, following well-worn tropes of the “ecological savage” or the “natural steward,” reconfiguring indigeneity in relation to energy development and its effects conjures these ghosts of the colonial imagination. As Philip Deloria has shown, practices of “playing Indian” are as quintessentially American as summer camp itself, historically employed to

\textsuperscript{16} As Ruffing notes, there is no consensus on the extent of Indian minerals. Other estimates cite 33% of western low-sulfur coal and 25% of uranium production. The Council of Energy Resource Tribes has different estimates, including 15% of all coal reserves and 50% of uranium.
construct whiteness both by rejecting and embracing indigeneity (Deloria 1998). The corrective to such earth-centered tropes has largely been to reconfigure indigeneity in terms of liberation and resistance, naturalizing a revolutionary, anti-capitalist, rebel identity, rendering “the Native” as the new critical, global vanguard of anti-capitalist politics (Brysk 2000; Gedicks 2001; Churchill 2002). This articulation of indigeneity has been more prevalent in Latin America than in the U.S. or Canada, largely due to global attention to the Zapatista uprising in Chiapas, Mexico in January 1994 – seen as an indigenous response both to policies of the Mexican state (particularly surrounding land rights) and trans-national agreements, especially the North American Free Trade Agreement. Widely figured as struggles over autonomy (Nash 2001), these primarily Mayan movements have generated their own “moral grammars” (Solano 2003), circulating globally, informing the politics of identity and sovereignty among many indigenous movements in the U.S. More recently, indigenous cultural critics of the longstanding “romanticization” of American Indians have moved the debate far beyond dualistic concepts and “cartoon images” of indigeneity, pushing theories of identity to see the multiple, hybrid, and contradictory experiences of American Indians today (Chaat Smith 2009). This shift toward seeing indigeneity conceptually, rather than categorically or essentially, moves ethnographic work toward explorations of “emergent forms” of indigeneity today (Fortun, Fortun, and Rubenstein 2010), resonating with this project’s overall emphasis on the emergent as an analytic approach. Moreover, this turn moves toward understanding indigeneity as “open-ended and unpredictable” rather than a prefigured identity or politics, allowing for diverse expressions (de la Cadena and Starn 2007). This turn, as well, makes space for important ethnographies of development and
indigeneity to explore internal differentiation within Native communities (Dombrowski 2001), yet without throwing out the lived, material, historical relationships to the land and other beings so important in many Native cosmologies and practices (Blaser 2004a; Cruikshank 2005).

These material relationships, and their broader meanings, are traceable in many instances through extractive industry on indigenous territories. In the U.S., natural resource management has played an important role in negotiations over tribal sovereignty (at the level of governance) as well as in the emergence of new social movements, organized specifically around disputed management of natural (surface and subterranean) resources. Tribal governments as well as tribal grassroots organizations have assumed leadership in these movements at different times and in different ways – sometimes unified in their efforts to oppose a city, state, federal or private development project impacting indigenous land, but often working against one another, with non-governmental leaders challenging their tribal council’s policies and partnerships. In either case, extractive industries including coal and uranium mining, oil and gas, timber, and bioprospecting have been vectors of profound political, ecological and social change for many mineral and resource-rich Native Nations in the U.S. Most of the critical, social science approaches to these movements have been to track non-governmental political action and resistance to development (Clark 2002; Dove 2006; Gedicks and Grossman 2004; Hodgson 2002; LaDuke 1999). Critical perspectives on technology, in particular, have been a site of much debate in its relation to indigenous peoples and extractive industries, considering, for example: myriad modes of negotiating new machines and large-scale industrial operations (Hess 1995), the incorporation of global information
technologies and videography into indigenous politics (Solano 2005; Brysk 2000; Smith and Ward 2000), and the sidelining of development schemes through “life projects” that do not resist, but “stand in the way of” technological development (Blaser 2004b). This dissertation contributes to these discussions, working to push analyses beyond standard narratives of destruction and resistance, arguing that development-as-oppression is not the end of the story, nor was it ever the whole story. Instead, this project aims to direct attention toward the complex interactions, generative potentialities, and new cultural forms produced through energy politics today. My focus is on what power produces and allows, rather than what power forecloses.

In response to complex legacies of extraction in Native Nations in the U.S., in the late 20th and early 21st centuries many Native Nations have begun pushing back – engaging development schemes on their own terms, negotiating between conventional and emerging models, asserting self-determination vis-à-vis energy politics and continuing to challenge easy definitions of “environmentalism” which began more than twenty years ago and have, too-often, dominated popular understandings of what is at stake in energy development controversies. Given the current crisis of global climate change, global warming, resource depletion and ever-growing energy demands, many Native communities are asserting new leadership in re-thinking the cultural politics and prevailing knowledge of energy development paradigms. 17 I focus my work in indigenous communities, and the Navajo Nation in particular, as an outgrowth of my previous experience and also because I believe it is in and between these energy debates that some

17 This leadership, while stronger than ever before, remains marginalized at the level of states’ interactions, as evidenced at the December 2009 Copenhagen Summit on Climate Change. As one Navajo participant in the Summit later explained to me, “We [indigenous people] were still in the ghetto.”
of the most salient, critical understandings of colonization, knowledge, science and technology, and sovereignty are occurring – often vis-à-vis technologies of energy development.

Today, webs of a political economy of energy development crisscross indigenous territories, placing Native Nations in difficult positions concerning their “rights” to develop their own resources. Many Native Nations are directly confronting what they consider colonial (or neo-colonial) practices of energy development, not limited to underpaid, un-paid, and overdue mineral royalties, non-ownership of projects, corporate and federal exploitation, and regulatory confusion, among other issues. Given these challenges, Native Nations are striving to create development schemes on their own terms, negotiating between conventional and emerging technologies and models. This is perhaps best understood in the realm of energy development, where some Native Nations long dependent on fossil fuel and mineral extraction continue to wrestle with the economic potential and ethical significance of becoming leaders in extractive industries and renewable energy. From small-scale tribal energy projects like tribally-owned gas stations on the Choctaw Nation (Lambert 2007) to commercial-scale endeavors like wind projects on the Nambé Pueblo in New Mexico, Rosebud Tribe in South Dakota, and on land that the Campo Kumeyaay (in California) lease for two dozen wind turbines that

18 The effects of colonization in North America are diverse, historically and culturally specific among Native and First Nations, yet all are bound by the commonalities of settler-colonialism. Processes of colonization are also processes of modernization; as the Modernity/Coloniality Working Group argues, the underside of “modernity” in the Americas is “coloniality,” indexing the ongoing, unequal processes of particular forms of colonial power and difference, which have worked to devalue the knowledge and perspectives of historically (geopolitically and epistemologically) subaltern populations. While such intellectual work has been strong in the Latin American context (Medeiros 2006; Mignolo 2000; Quijano 1993; Walsh 2002), my project contributes sustained, ethnographic research on similar questions in the United States, where the history of colonization of indigenous peoples is marked by different technologies of exclusion, assimilation, and recognition.
power 35,000 homes in San Diego County, Native Nations are becoming players in energy politics on a national scale. However, many barriers to full participation remain. With these transformations, new and seemingly unlikely alliances are forming: tribal governments aligning with the U.S. Department of Energy’s Tribal Energy Program; a Council of Energy Resource Tribes building political power in Washington; involvement in energy issues by long-standing pan-Indian organizations such as the National Congress of American Indians; and networks of attorneys offering annual seminars for tribal leaders, tribal members, entrepreneurs, and engineers on tribal energy development. Given the urgency to find new methods of mitigating and responding to the global climate change crisis, many American Indian Native Nations and broadly networked indigenous communities are asserting leadership in re-thinking the cultural politics and prevailing knowledge of energy development paradigms. National and transnational indigenous non-governmental organizations have emerged as leaders in this reformulation, infusing funding, strategic support, new discourses of development, and broader geographic networks into particular tribal communities.

(3) “Developing” the Diné: Extractions, Conversions, Circulations

It is within these landscapes of power, both material and figurative, and the problem of the energy-development nexus, that I situated my fieldwork on the Navajo

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19 Law Seminars International regularly holds regional energy seminars focusing on understanding the legal aspects of tribal energy development.
Among Native Nations in the United States, the Navajo Nation is among the largest, both in population and geography. The Navajo call themselves Diné (The People) and call their territory Diné Bikeyah. Tribal enrollment is based on a one-quarter-blood quantum for individual enrollment, and the Nation in 2004 voted down a proposal to lower the requirement to one-eighth. The year 2000 U.S. Census reported the population of the reservation totaling just over 180,462, with 97% identifying as American Indians and 3% identifying as white; however, there are closer to 300,000 total Navajo people living throughout the United States. Based on estimated population growth rates (1.82% annually), the Navajo population living on the reservation is estimated to have grown to 201,060 by 2006, and continues to grow. The population is relatively young (median age in 2000 was 24 years, compared to 35.3 in the U.S. at large) and predominantly female. Tribal agencies estimate that nearly 1/3 of homes on the reservation lack electricity and running water and annual per capita income hovers just over $7,000 per year. Approximately 100,000 people speak the Navajo language, which is one of three Apachean languages (along with Eastern Apache and Western Apache). The Apachean languages are a sub-linguistic group of the wider Athabaskan (or Na-Dene) language family, spoken by indigenous peoples from Alaska and northwestern Canada to Arizona.

In this dissertation, I use “Navajo” and “Diné” interchangeably, following the custom of tribal members themselves. When I refer to the Nation as a political body, I speak of “the Navajo Nation,” following standard practice in Navajo Studies literature, though recognizing that in some locations “Diné Nation” is used.

Contemporary geopolitical borders of the Navajo land base cut across the states of Arizona, New Mexico and Utah and bound a territory of 27,000 square miles (or 17 million acres), making the Navajo Nation the size of the state of West Virginia or country of Ireland. Located on the Colorado Plateau, the Navajo Nation is a high desert ecology with arid mesas, deep canyons, alpine forests of ponderosa pines, juniper, and piñon trees, and mountains in the Chuska range reaching an altitude of 10,500 feet. This area is both the site of the Navajos’ ancestral habitation (prior to contact with Europeans) as well as the site of their modern “reservation,” established through a treaty between Navajo leaders and the U.S. government in the summer of 1868, with the original reservation expanding considerably (through federal land grants) since it was initially established. The landscape is dramatically marked and known internationally for its volcanic formations – Jurassic-era outcroppings such as Shiprock in the east and Monument Valley in the west have become emblematic of the region and the people, and draw over 3 million tourists annually.

The action described in this dissertation has primarily taken place on the Navajo Nation where articulations of mineral resources (oil, uranium, and coal) with modern governance are at the heart of the Navajo Nation’s history of economic development. In 1923, the U.S. created the Navajo Tribal Council as a governing body for the Nation – despite the Navajos’ pre-colonization history of self-governance – establishing a federally recognized entity to negotiate oil extraction on Navajo land. After Standard Oil Company established oil wells on tribal land, the discovery of coal and uranium beneath

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22 Chapter I offers a more thorough discussion of the history and contemporary structures of Navajo Nation governance.
the ancient lava flows and limestone formations defining the Navajo landscape solidified a tribal economy dependent upon the extraction of Navajo minerals by outside corporations. It has since been widely acknowledged that tribal royalties amounted to far less than what the companies promised. By the 1970’s, influenced by dependency theorists, diverse liberation and civil rights movements across the U.S., and increasing awareness of illnesses related to radiation exposure (from working in uranium mines), tribal government and grassroots leaders alike began questioning the federal-corporate collusions that enabled extraction of Navajo resources, with no Navajo ownership in the projects as well as the very ethics of such an export-driven, intensive model of development.

Players in these negotiations of economy, sovereignty, and livelihoods include elected tribal government officials as well as grassroots non-governmental organization and movement leaders. Though this distinction is useful heuristically, it is important to note that in the Navajo case, it is a distinction that does not hold in any absolute sense. Tribal Council Delegates are often former movement-leaders, or shift into movement-related work after retiring from office. Likewise, many tribal officials holding community-level offices (such as Chapter Presidents) are very active members of local social movements, even when their grassroots work involves launching a critique of the centralized Tribal Council. Throughout this dissertation, I will speak of these two levels for the sake of distinguishing between governmental and non-governmental actors – or between formal political action and everyday or movement political action – but this in no way is meant to reify these two levels as intrinsically opposed or without significant entanglements and overlaps. Importantly, the concept of k’e, a defining feature of Navajo
relationality, kinship, and clanship, undergirds the way politics are practiced, social and sanguine relations are constructed. Practices and theories of *k’e* thus disassemble modernist expectations and dualities such as private and public, formal and informal, familial and professional. Within this extended network of relations, however, a tension still exists between those in positions to create policy and those in positions to advance social and environmental justice through extra-juridical means. Reconciling the need for tribal economic development (e.g., secure livelihoods, on-reservation jobs with livable wages, infrastructural improvements, and increased tribal revenue) with (a) increased pressures for environmental and cultural sustainability, (b) a desire to strengthen tribal political sovereignty, and (c) enduring desires to maintain Diné distinctiveness remains an ongoing challenge not only for the Navajo, but for many American Indian nations.

Energy extraction on the Navajo Nation has a complex 20th century legacy, intertwined with governance, grassroots activism, sovereignty struggles, livelihood, and U.S. settler-state colonialism (explored in more detail in Chapters I and II). It is also a matter of the mundane – of the most basic practices of daily life on the reservation – eating, keeping warm, traveling, watching television, and making coffee. These activities are highlighted, ethnographically, in the four “Energy Interludes” interspersed among the dissertation’s chapters. Taken together, these practices of energy consumption and production are the background for understanding one current debate on the Nation’s economic, environmental, and energy future: the proposed Desert Rock Energy Project.

Briefly stated (and elaborated in subsequent chapters), the Navajo Nation has a complex legacy of energy development, beginning with oil, moving through uranium, and continuing today with coal, wind, and solar power. Discovery of vast oil reserves in
the Colorado Plateau in the late 19th century led to early 20th century exploration and the formation of the Navajo Nation as a federally recognized political body in the 1920’s, enabling leasing contracts for oil extraction. From the 1930’s until the present, tribal economic development has relied upon the mining of vast amounts Navajo coal to supply regional power plants, which in turn export electricity to Southwestern cities. Briefly, from the 1950’s “boom” until the 1990’s “bust” – but with ongoing radioactive consequences – the Nation experienced large revenue and high employment from uranium mining, supplying uranium for the nuclear weapons and nuclear power industries in the U.S. These histories of developing the Navajo Nation through its energy mineral resources, combined with the ongoing disputes over access to land, shape the contemporary discourse on energy politics on the Nation. These debates materialize in the landscape, in the ongoing coal mining operations (the largest being at Black Mesa in Arizona and at the Navajo Mine to the east, in New Mexico), as well as the emergence of small-scale wind, solar and hybrid wind-solar projects on homes across the reservation. With this more recent turn toward renewable energy, the Nation’s own Navajo Tribal Utility Authority (NTUA) has installed more than 400 solar photovoltaic systems on residential, off-grid dwellings across the 27,000 square mile territory.23 The earliest systems (in 1978-1979) were federally funded via Indian Health Service to power rural water pumps. Then in the 1980’s, the NTUA started doing very simple solar systems on homes, providing electricity only for lighting and basic appliances, such as a radio.

23 Interview with Larry Ahasteen, Former Director of Renewable Energy for the Navajo Tribal Utility Authority, Window Rock, AZ, June 17, 2008.
Recently installed solar arrays are much more robust.\textsuperscript{24} Wind is a newer technology for residential electrical power on the reservation, although the Nation has used wind for pumping groundwater for many years, making concrete-block wells with steel windmills familiar infrastructures across the open, reservation landscape. Their waters untested or uncertain, many wells are marked with spray-painted signs, \textit{for livestock only}. The NTUA only started using wind power for electrical generation around 2004, starting with small, 400-watt systems, and then stepping up to 1900-watt systems. There are currently five such systems installed on family homes in the settlements of Kaibitoh, Chischibitoh, Indian Wells, and Klagetoh.\textsuperscript{25}

However, this energy debates are also a matter of scale and spatiality; fossil fuel projects set up for exporting power in exchange for tribal revenue are of a different order than small-scale renewable energy installations, where energy is both generated and consumed in the same locale. Recognizing this discrepancy, grassroots groups of tribal members have started to push the tribal government to expand its commitment to alternative energy technologies beyond residential projects, ultimately overturning the Nation’s historic reliance on a fossil fuel-based development paradigm. There is a challenge of scale, however, as the individuals and agencies leading the Navajo Nation’s natural resource and economic development policies have been oriented toward large-scale, export-driven infrastructural development models that are projected to generate substantial revenue.

\textsuperscript{24} Ibid.

\textsuperscript{25} Ibid.
B. Emergence: Developing a Theoretical and Methodological Approach

What happens when a project with the purported potential to change the landscape of power in the Southwest – indeed to change history – comes into being? In the desert badlands of northern New Mexico, where Diné families living on the Navajo Nation haul their water, burn wood and coal in their homes, live in the economic shadow of border towns like Farmington and two existing coal plants, and yet are unconnected to the transmission lines that tower above and carry energy off the reservation to regional cities, a proposal for a new coal-fired power plant poses fantasies of both, to call upon Tsing’s pairing again, “hope and despair.”

This is a study of the cultural political effects surrounding this project, making Desert Rock a fulcrum for understanding the broader dynamics of energy politics on the Navajo Nation. Since Desert Rock has not (yet) been constructed, this is an ethnographic approach to an emergent phenomenon. That which is not yet, but might be, is haunted by ghosts of possibility – alternate futures that vie for traction amidst a range of potential outcomes. Such a sense of possibility begets hope and terror, the sacred and the profane. In the midst of the debate over who benefits and who suffers from such a project, of whether such a project is “good” or “bad” for the Nation and the greater region, another question hovers: *What is significant about Desert Rock, even if the power plant is never built? What if it remains a specter, profoundly shaping the present and the future, yet is omitted from history because of its failure to materialize?*26

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26 This would be in the vein of what Peter Redfield calls “shadow histories,” or “accounts of the very real alternatives to the primary ways things have been done or understood” (Redfield 2000, 16).
(1) Possibilities

Tracing the contours and effects of something not yet materialized yet made real through practice and discourse, the dissertation illustrates how the very possibility of future changes in the built environment has embodied effects and cultural political consequences for people in the present. As an ethnography of energy, this is a story about how futures are being forged in the present – technically, culturally, politically, subjectively, and ethically – through specific, proposed technologies. While others have brought ethnography to bear on practices of future-making as a site of socio-cultural contestation, my intent is to bring the materiality of future-making to the fore by tracing how a specific, proposed energy technology mediates and produces these debates. Driving these contestations are hopes for futures that are different than, and better than, the present – such is the work of a diverse range of social movements considered in this project. This “politics of possibility,” to borrow the lexicon of feminist geographers JK Gibson-Graham, works in “the here and now,” to craft and cultivate different ways of being, knowing, and doing. They elaborate:

“Cultivating ourselves as thinking subjects within a politics of (economic) possibility has involved us with techniques of ontological reframing (to produce the ground of possibility), rereading (to uncover or excavate the possible), and creativity (to generate actual possibilities where none formerly existed)” (Gibson-Graham 2006, xxix-xxx).

Gibson-Graham’s project is to advance what they call a “politics of possibility” – a new social theory of power, an approach that is Foucaultian and phenomenological in its foundations, but also draws heavily on queer theory and social movements studies. Their methodology includes discursive analysis, media analysis, phenomenological,
archival/historical, and action research focus groups. It is also actively reflexive, in the sense that part of their aim is to transform their own practices and mode of engagement as researchers, “to cultivate ourselves as theorists of possibility” (Gibson-Graham 2006, xxviii).

I draw upon Gibson-Graham’s identified techniques of enacting a politics of possibility to inform a framework of emergence, in that what is being worked out is not considered to be finished, fixed, or settled; on the contrary, the very techniques of future-making (enacting the possible) are experimental and processual, anchored in visions of how one imagines the world out there to be and then goes about building that world, brick by brick. My emphasis on the material culture of these processes – the artifacts of the built environment such as coal fired power plants, wind turbines, or solar panels – draws attention to the ways in which such a politics of possibility is brought into being not only through the work done on subjects and places (as Gibson-Graham stress), but through the material world itself. One goal of this dissertation is to contribute an emphasis on materiality to discussions of political possibilities and the way such politics are enacted through contentious, emergent phenomena.

(2) Developments, Movements

In most analyses of development controversies, scholars in anthropology, critical development studies, political ecology and indigenous studies have responded to the effects and consequences of development projects, once they are constructed. Or, development projects demand attention only when they collapse, fail, or break down, given the “invisibility” of infrastructure until it breaks down (Bowker and Star 1999). We need only recall the levees of New Orleans during Hurricane Katrina or the nuclear
explosion at Chernobyl. In general, there is a tendency to study projects that have “made history.” However, less work has been done to consider the effects and consequences of development projects that never materialize or become institutionalized as artifacts in the built environment – projects that remain in history’s “shadows” (Redfield 2000).

Recent critical ethnographies of global technological development events (several of which also pertain to energy production) include: chemical plant explosions and nuclear reactor catastrophes, generating new conceptions of life and politics (Fortun 2001; Petryna 2002); oil exploration revealing internal frictions in indigenous communities (Sawyer 2004); international monetary and other health-oriented aid programs (Mosse 2005); space exploration technologies built in colonial locales (Redfield 2000); and the economic, gendered, and livelihood effects of a dam (Araujo 2009), just to list a few. These important works, among others, evaluate transformations effected by the actual implementation – and failures – of specific technologies and infrastructure. Yet, in some development technologies – like the one presented in this dissertation – the object itself is never, or not yet built, and still is powerful enough to mobilize action, knowledge, identities, and politics, even without the first brick being laid. In this sense, my concern is with the materiality of the immaterial.

I find the framework of emergence particularly suitable for understanding energy development projects and their attending activism, as practiced through diverse social and environmental justice movements as well as through modes of social action that challenge conventional boundaries of what counts as “a movement.” My interest in social movements emerges from my personal history and the drama of engagement that brought me to this project but also from recent turns in anthropologies of social movements that
rehink both the ontology and epistemology of “a movement” beyond the theories that have dominated the field of social movements studies.\textsuperscript{27} For example, as David J. Hess suggests, “social movements” might be more productively conceptualized as “alternative pathways,” allowing us to broaden our conceptualization of “movements” and “make it possible to avoid drawing premature boundaries when confronted with the fluidity of goals and repertoires of action” (Hess 2007, 4). Hess’ work, as it addresses emerging technologies and energy technologies, in particular, is instructive for thinking at the intersections of established disciplinary fields and re-thinking “movements” conceptually in a vein similar to the working group I have been a part of at UNC-Chapel Hill.

Similarly, this ontological shift moves us away from imagining movements in terms of “structural forces” or “strategizing,” the dualistic structure-agency approach (of “political opportunities” and so forth) that has dominated the field. Rather, in Arturo Escobar’s words, seeing movements’ “self-organizing” nature permits an open-ended view of movements as both “dependent and independent of context and environment … in which the emergent patterned movement is best explained as the result of interaction between on-the-ground recurrent activity and surrounding conditions” (Arturo Escobar 2008a,

\textsuperscript{27} Elsewhere, with my colleagues and co-authors Maribel Casas-Cortés and Michal Osterweil, I discuss the dominant field of social movements studies (SMS) as it has been developed in sociology and political science, primarily, arguing that anthropological and ethnographic approaches to SMS has done much to disrupt and open up the category of “movement” (Casas-Cortés, Osterweil, and Powell 2008). This work builds upon seven years of co-labor with others in the Social Movements Working Group at UNC-Chapel Hill, including Arturo Escobar, Dorothy Holland, Charles Price, Don Nonini, Charles Kurzman, John Pickles, Wendy Wolford, Juan Ricardo Aparicio, Vinci Daro, Gretchen Fox, Maribel Casas-Cortés, Sebastian Cobarubias, Kim Allen, Mario Blaser, Elena Yehia, Carie Little Hersh, Sara Safransky, Alice Brooke Wilson, Georgina Drew, Joe Wiltberger, Liz Mason-Deese, and others, in which we have critically engaged the very concept of “movement” in our diverse modes of research on/with/through social movements.
260). In effect, seeing movements not as fixed entities but as complex processes of emergence informs my overall approach.

And yet, this project is not “about” a social movement. Re-thinking “movement” is relevant to my work on energy development on the Navajo Nation because there are multiple forms of social action generated through energy development technologies, some of which self-identify as “a movement,” while others do not. Moreover, though I came to this project out of my work with a movement, this dissertation is not a project “on” that political formation in any strict sense. Rather, this is a project “with” a movement or, said differently, to create a conversation between conversations, with movement actors and others, drawing upon the situated perspective of my position of (epistemic, cultural, historical) difference. In this project, the movement (or “alternative pathway” of which it is a part) itself informs my analysis through its own knowledge work and action, but is not the object of inquiry. My interlocution and location inserts me into it, rather than the other way around.

In addition to these theoretical edges of social movements studies, my ethnographic approach to the emergent draws upon a mosaic of literatures in which “emergence” is understood ontologically and relationally, traceable through practice. In particular, I find works in STS, cultural studies, and contemporary biology helpful for assembling this conceptual pattern and informing an anthropological approach. Because emergence is a “process of coming into being” (Oxford English Dictionary), it is evident and traceable through its relations and its practices. As such, I situate my analytic

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28 I thank Arturo Escobar for articulating this intervention as a “conversation between conversations.”
approach to emergence within practice theory, more broadly, in which emergence
maintains an appreciation of the fluidity of action and relations producing social life.

(3) Science, Technology, and Society

Studies of Science, Technology, and Society (STS) is a broad, interdisciplinary
field, increasingly incorporating anthropological perspectives and ethnographic
methodologies into studies of science, technology, expertise, and related concerns
(Downey and Dumit 1997). As sub-threads within STS, Actor Network Theory (ANT)
and Material Culture Studies unmoor the centrality of the human in anthropology,
broadening the ecology of things under ethnographic consideration. Both make the
emergent their concern, emphasizing how complex objects and things help bring the
world(s) into being. As Fred Myers writes of material culture studies:

“These theoretical orientations, deriving from a range of interventions and
instrumentalities in human life, have called attention to emergent realities – from
websites to automobiles, from videocassettes to clothing, from the implications
of new reproductive technologies to the patenting of human genes – that demand
rethinking of approaches to human life” (Myers 2004, 15).

Deploying emergence as a way of rethinking human (and non-human) life is taking place
where STS meets anthropology in at least three places:

First, Michael Fischer’s emphasis on “technoscientific infrastructures and
emergent forms of life” (2005) points out three elements in the notion of emergence:
organization; ethics/politics/action; and the literal creation of new forms of life, such as
certain molecules (suggestive of Latour’s history of the microbe in France). The first is a
question of form – some objects or events come into being which are irreducible to their constitutive components and take on aspects of “larger cyborgian, actor-networks and material-semiotic modes of production” (Fischer 2005, 56). The second, he asserts, is a matter of ethical and political action – in which “acts have serious consequences, leading to new social forms” (ibid). Such thinking in terms of emergence helps ethnographers make sense of these new “ethical plateaus,” defined as “spaces in which multiple technologies interact; where ethics and politics cannot be reduced to two-person, zero-sum games; and where often incommensurable frames of reference come into play, involving irrational passions and fundamental commitments, as well as rational calculations” (ibid). Such “ethical plateaus,” as we will see, have been produced repeatedly and at various critical junctures in the ongoing debates over energy development on the Navajo Nation. In fact, one might go so far as to extend his spatial metaphor to say: the Navajo Nation is an ethical plateau for broader, national and global debates over energy production and consumption. The methodological stakes of Fischer’s argument are that such plateaus and forms require new forms of ethnography.

Second, in their Introduction to the recent volume, Cultural Anthropology, editors Kim Fortun and Mike Fortun identify Emergence as one of four key themes in anthropological work today, the others being “Moorings,” “Modernities,” and “Engagements.” Noting the influence of complexity theory and its discussions of “hurricanes, organisms, cities, flocking birds, economies, and ant colonies [being] conceived as ‘emergent,’” (Fortun and Fortun 2009, xxvii). The editors also rely heavily upon Michel Foucault’s understanding of emergence,

“That the ‘object of concern’ for critical analysis should always be conceived as
‘molded by a great many distinct regimes,’ forcefully interacting. ‘Entstehung designates emergence, the moment of arising,’ Foucault writes: ‘…Emergence is always produced through a particular stage of forces. The analysis of the Entstehung must delineate this interaction, the struggle these forces weight against each other or against adverse circumstances’” (Fortun and Fortun 2009, xxviii).

The editors present recent anthropological approaches to emergence as diverse, dynamic and “productively different,” though coherent in their attention to processes of becoming (Fortun and Fortun 2009, xxvii). Subdividing categories of Emergence in cultural anthropology as “Re-Conceiving Wholes,” “Figuring Historical Difference,” “Mediations” and “Modes of Care,” the editors assemble essays that attend to globally dispersed, culturally and historically distinct patterns of emergence, The editors argue that attending to emergence within anthropology is a technique for working across questions of time, scale, and political/ethical crisis in current ethnographic endeavors.

Third, in Actor Network Theory (ANT), an offshoot of STS, reality is formed only through emergent practices, that is, through the associations formed and stabilized between entities. Not only does ANT advance a re-vamped concept of “the social” based on processes, working against prevailing sociological theories of the social as a predetermined, naturalized “context” or background, the theory (and methodology, of ANT) emphasis the work that actors do to bring certain objects, realities, and effects into being (Law 1992; Latour 2006; Latour 1999; Latour 1997). I read ANT as an ontology and methodology, specifically, as a practice theory of emergence, especially following its Latourian strand, further relevant to this project in its exposure of the “Modern Constitution,” involving various acts of purification that suppress and deny the proliferation of hybrid forms that populate our worlds, which have “never been modern,”
despite our faith, otherwise (Latour 1991). Actor Network Theory informs authors who explore how circulating, disintegrated bodies, subjects, and practices become coordinated and situated through particular practices. However, I recognize (with others, especially many working in feminist theory) ANT’s serious limitations, particularly in being a largely presentist theory and offering no viable analysis of power. Still, using ANT encourages rethinking development, political ecology, identity/subjectivity, and methodology – key themes in this dissertation – in relational, networked terms, repositioning the researcher as one interlocutor among many in what I consider to be increasingly crowded fields of research and action.

Anna Tsing’s quotation opening this section draws our attention to the need for an emergent methodology when we recognize the unpredictable and often urgent nature of social and technological phenomena. And in sites where “hope and despair huddle together,” bound by the “same technologies” – as certainly has been the case with the energy development on the Navajo Nation – the passions of yet unsettled, utopic and dystopic visions of the future are best confronted with an eye toward a methodology and ontology of emergence. This summary of theories of emergence is meant as a mosaic of approaches, showing resonances and mutual orbits, rather than a conclusive or definitive list of all possible relevant approaches to emergence.

(4) Cultural Studies

Emergence has a genealogy in foundations of cultural and literary studies, which I read as an emphasis on relationality. Raymond Williams distinguishes between the “dominant,” the “residual” and the “emergent,” with the emergent being only visible in
relation to the dominant (Williams 1977). He argues it is often hard to tell what is truly emergent (truly alternative or oppositional to the dominant culture) versus those things that are just novel or some new phase of the dominant culture. Therefore, the emergent, in his formulation, can only be defined relationally. He goes on to argue that the emergence of a new cultural formation – even a new class – is always likely to be uneven, complex, and incomplete, and emergence will always be met with efforts at incorporation, thereby limiting the emergence. In his assessment, incorporation often looks like acceptance, recognition, or even acceptance of the emergence, even as it works to take it over. As we will see in subsequent chapters and the energy interludes between chapters, Williams’ theory of emergence is particularly helpful in thinking about the slippery nature of “alternative” energy technologies, where the “alternative” stands in for “the emergent” (as a response to the “dominant” technologies of fossil fuels). Williams writes:

“The alternative, especially in areas that impinge on significant areas of the dominant, is often seen as oppositional and, by pressure, often converted into it. Yet even here there can be spheres of practice and meaning which, almost by definition from its own limited character, or in its profound deformation, the dominant culture is unable in any real terms to recognize. Elements of emergence may indeed be incorporated, but just as often the incorporated forms are merely facsimiles of the genuinely emergent cultural practice. Any significant emergence, beyond or against a dominant mode, is very difficult under these conditions; in itself and in this repeated confusion with the facsimiles and novelties of the incorporated phase. Yet, in our own period as in others, the fact of emergent cultural practice is still undeniable, and together with the fact of actively residual practice is a necessary complication of the would-be dominant culture.” (Williams 1977, 126).

While of course Williams works with a very different concept of “the social” than do many anthropologists working today (especially those intersecting with ANT, as noted
above), his assessment of the relationality and difficulty of emergence, is a connective metaphor for thinking of his approach to emergence alongside the other approaches discussed in this section.

A second resonating project in cultural studies is Peter Fenves’ reading of emergence through the work of Avital Ronnell. Fenves begins with an elaboration of Immanuel Kant’s sense of emergence, in which emergence is tied to enlightenment. In Kant’s sense (as read by Fenves), the human being can “emerge” – become enlightened – but only “with difficulty and with courage from the nonage of his own understanding” (Fenves 2009, 32). Kant’s emphasis on the individual introduces a new aspect to this overall discussion on emergence, which tends toward thinking in terms of the collective, at level of the species or community. Conceptualizing emergence in terms of the (Kantian) subject incorporates the dynamic of “self-understanding” into this broader mosaic of emergence theories, a reminder of the aspects of interiority, personhood, and subject formation at work in processes of emergence. Fenves’ discussion of emergence culminates with a reading of Ronnell’s approach to emergence, which he summarizes as an “idea of co-emergence” in which “the new does not follow the old but, rather, emerges with it” (Fenves 2009, 46). Ronnell’s idea of emergence, Fenves argues, is that also offers new images and metaphors that work against Kant’s enlightenment image of Plato emerging from the cave into the blinding light of day. In the Platonic image, the “underlying assumption is that the way out is already there, waiting to be found, so that one can then ‘emerge’,” Fenves writes (Fenves 2009, 47). Rather, Ronnell’s image is of digging, and “re-digging” one’s way out when there is no obvious, pre-ordained “exit” through which to emerge. In my reading, this seems like a concept of emergence without
guarantee – an emergence that requires work. In this formulation, the co-emergence of the new with the old (rather an against the old) offers a way of thinking about histories of energy technologies, in which the proposed “alternatives” (the new) are always traveling hand-in-hand with the older technologies there are so frequently deployed against.

(5) Neorealist approaches to “Nature”

Such emphasis on relationality resonates with theories of relationality in some theoretical movements in neorealist biology and political ecology. The work of some contemporary biologists who have become “dissenting imaginations within their own fields” (Escobar 2008a, 154) offer insight to social theories broadly, and to emergence, in particular. For example, biologist Ursula Goodenough and biological anthropologist Terrence W. Deacon through their work on human evolution argue that “emergent properties arise as the consequence of relationships between entities,” even at the level of atoms and genomes (Goodenough and Deacon 2006, 855). This kind of relationality and interaction yield entities which become “something more” than their constitutive parts. Such emphasis on the irreducible nature of entities trains our focus toward processes of becoming and toward forms that appear coherent and unified only after they are assembled (in their example, a snowflake). The authors’ self-described “emergentist perspective” is a framework for understanding human evolution wherein “human-specific traits are emergent – something else popping through from all that has gone on before and continues to surround us” (Goodenough and Deacon 2006, 863).

Also using emergence to understand evolutionary processes and to rethink “the environment,” theoretical and mathematical biologist Brian Goodwin’s work resonates
(Goodwin 2007). In Goodwin’s words, “orderly patterns from disorderly elements are known as emergent properties” (Goodwin 2007, 35). He argues that meaning, language, feeling, experience, and creativity are not solely the domain of the human world, and that patterns of life (and emerging life) in the natural world requires a “science of qualities” as well as quantities, because their unpredictability exceeds mathematical or quantitative causal explanation (Goodwin 2007, 69-72). Learning to see such patterns has long been the work of the biologist using laboratory and field methods, but can also be understood as the work of the anthropologist, using ethnographic methods to discern objects and patterns of emergence in social fields of action. It is, as noted above, an ontological and methodological shift:

“The world is now seen to be full of emergent properties, which is the scientist’s way of recognizing the creativity of natural processes. These new insights into emergent properties are altering the way in which we attempt to understand and explain natural phenomena, especially in the context of evolution” (Goodwin 2007, 36).

Goodwin’s approach not only pushes the field of biology, but pushes theories of “the social” to recognize processes and properties that may escape our present analytic capabilities. In a seminar at Schumacher College, where he directed the Holistic Science program, Goodwin carefully demonstrated complexity theory through examples drawing upon mathematical instruments, the nerve pathways of the human body, and the whorls in the College’s famous oak tree. Phenomenological methods for studying “nature” in its complexity pushed his students, myself among them, to reconsider empiricism, theory, and our own relationships to the “objects” of the world(s) we aimed to study. Emergence,
for Goodwin, is observable and knowable in the world we co-create and co-inhabit with others species, and part of the inherently “creative processes” of all life forms.29

Finally, Arturo Escobar reconceptualizes “nature” and “the environment” through emergence, and is particularly to this project as it addresses what is ostensibly an “environmental” problem, read through technology. An emergence approach moves away from essentialist notions of nature as a world “out there” awaiting our description an analysis, seeing various “regimes of nature” as constructed through human practice (Escobar 1999; Escobar 1998). In a similar poststructuralist vein, Donna Haraway has done much to move ontologies of “nature” beyond dualistic nature/culture divides to see the co-production of “natures-cultures,” especially as those co-productions are driven by emerging forms of technoscience (Haraway 1997). Building upon Haraway’s “poststructuralist antiessentialism,” Escobar situates emergence as part of his project to re-think “nature” and nature epistemologies by way of Enrique Leff, among others (Escobar 2008a, chap. 3). Leff’s concept of saber ambiental brings together the “hybridized ontological orders of nature, culture, and technology,” a substantive notion of the environment which at the same time see it as “a potential” (Arturo Escobar 2008a, 131). Escobar elaborates:

“These concepts see the environment as an always emerging complexity that results from the very intervention of knowledge onto the real that brings together the biophysical, the cultural, and the technological into what most people still refer to as nature” (Escobar 2008a, 131).

29 This summary of Brian Goodwin’s theories of emergence, complexity, and nature are taken from my notes as his student during a short course on critical development at Schumacher College, Devon, England, February 2005.
This is significant to this project, as we will see, because what people imagine, and then act upon, when they deploy “the environment” (as well as by “sovereignty” and other categorical concepts) is very much at stake in energy development debates on the Navajo Nation.

Finally, from these different genealogies of emergence, my project aims to conduct what Boaventura de Sousa Santos calls, “a sociology of emergences,” which tracks practices of the “Not Yet,” a “complex category because it expresses what exists as mere tendency, a movement that is latent in the very process of manifesting itself” (de Sousa Santos 2004, 241). This approach situates the project as a political project of seeing and nurturing “possibility,” while at the same time recognizing that the “Not Yet has meaning (as possibility), but no direction, for it can end either in hope or disaster” (de Sousa Santos 2004, 241). Tracking emergences in energy development, in this sense, helps make visible and audible some of the tendencies and visions of “hope or disaster” being produced through energy debates in American Indian communities – places rarely seen or heard as anything other than “victims” of development in energy discourse. To that end, I draw insight from this theoretical mosaic into the excesses and irreducibilities marking energy politics and “environmentalism” on the Navajo Nation today. While ostensibly a problem of technology, the arena of energy development on the Navajo Nation opens up broader questions and problems of ontology and epistemology – of “who we are” and “what we know.” That is, the debates surrounding these contested energy technologies are far more than technical matters of environmental decision-making or economic development planning. Rather, as the primary emergent object traced in this dissertation, the Desert Rock Energy Project produces knowledges,
artifacts, meanings, alliances, and visions of the future through the complex relationships it establishes with its advocates and its adversaries. As an entity that is not-yet but always becoming, it mandating a research design with the flexibility to follow and trace a process of materialization.

C. Toward an Anthropology of Energy

Energy itself is a site where the social, environmental, technical, corporeal, and figurative merge. Energy is that which makes everything happen; neither created nor destroyed, it instead is converted from one material to another, its amount always remaining the same. These laws of thermodynamics possess anthropological significance, though largely under-explored. My use of the term “energy” derives from these definitional foundations in physics and natural science and always has the materiality of energy in mind throughout this discussion. From subterranean extractions of carbon to atmospheric harnessing of wind and sun, particular landscapes and infrastructures are required to transform these energy resources into quantifiable gigawatts, enabling humans to do a wide range of work in a variety of settings. Humans’ historical dependency on the sun, our solar system’s largest star, is part of this understanding. At the same time, however, my use of the term also summons the immaterial – the connotations of “energy” pertaining to vitality, ebullience, and power. In this sense, as well, “energy development” signals not only the harnessing of natural resources for electrical production, but the development of life and the production of complex social realities in human communities. In this way, my conceptualization of energy bolsters and
resonates with the polyvalent sense of “power” I use in my landscapes of power framework.

There are, in the words of geographer and energy theorist Vaclav Smil, multiple “energies shaping our world, from the Sun to pregnancy, from bread to microchips” (Smil 1999, x). In its most basic definition, energy is “the capacity for doing work,” measured in Newton-meters or joules, but it is also, more elusively, “an abstract concept invented by physical scientists in the nineteenth century to describe quantitatively a wide variety of natural phenomena” (Smil 1999, xiii). Few contemporary, critical anthropologists have ventured into the interdisciplinary terrain of what Smil terms “Modern Energy Studies,” where geologists, physicists, bioengineers, and others tend to operate in their disciplinary silos, unaware of the work being done by others (Smil 1999, xiii). This dissertation is one modest attempt to bring an anthropological perspective to bear on the global concern over energy, particularly as energy is understand as an arena of power and crisis with distinctive socio-cultural dimensions, especially in indigenous territories. Studying sites of contention and production in what is discursively figured as the global “energy crisis” illuminate that much more is at stake for mineral-rich communities than technocratic debates on power production, distribution and  

30 I recognize, of course, possible antecedents of an anthropology of energy in the discipline, such as population-centered work by Leslie A. White (1943) and other early cultural ecologists, though their analysis was primarily within a framework of cultural evolution. My concern with a contemporary anthropology of energy is in developing – with Winther, Wilhite and others – a critical approach that decenters the population (or “the tribe” or “the people”) as the object of ethnographic inquiry, shifting instead to see networks of energy development, distribution, and consumption – and their attending power inequities – as the common matter of concern.

31 This is, of course, the “energy crisis” of the present conjuncture, informed by but discursively discrete from the most recent, previous “energy crisis” of the early 1970’s. In a Foucaultian sense, both moments represent ruptures or discontinuities in which “energy” – formerly taken for granted – became suddenly visible and problematic, politicized and threatened, posing the possibility of new technoscientific and world-political orders.
consumption. It also shows how the emergent objects in question can be productive of a diverse range of effects, including new landscapes of power – both material and figurative.

Anthropologists working in Norway recognize the theoretical and empirical urgency in cultivating an anthropology of energy sensitive to the complex dynamics of human socio-cultural worlds as they interface with non-human ecologies. Early in this anthropological turn (mid-1980’s), research by social anthropologists Richard Wilk and Harold Wilhite used ethnographic approaches to understand why people engage in particular patterns of decision-making concerning energy consumption and weather-stripping at the level of the household (Wilk and Wilhite 1984, 1985). Their work focused on domestic, everyday life energy practices in California communities at a historical moment when public consciousness of household energy conservation was on the rise in the United States. Wilhite went on to develop a dissertation project in Kerala, India, focusing on energy consumption behaviors, their socio-cultural significance and possibilities for influencing sustainable development (Wilhite 2008). Concerning the global problem of energy demands, climate change, and the human and non-human lives affected by these transformations, he argues that, “energy needs anthropology” (Wilhite 2005). I concur with his claim that energy exceeds its presumed physical, engineering, and scientific boundaries, having a “social life” that “requires management” (2005, 1)

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32 At present, the University of Oslo is a global center for anthropological and ethnographic research on energy consumption, rural electrification, and energy sustainability. Harold Wilhite leads a research program at the University of Oslo’s Centre for Development and Environment entitled “Consumption, Energy and Social Change.”
and, therefore, demands human intervention – with its many complications. Wilhite argues that an anthropological perspective is best positioned to do this critical work:

“The subject of energy use is in dire need of theoretical innovation, and is going nowhere as long as economic and attitude models serve as the centerpiece of research, while other social scientific approaches peck away at the periphery. New ways of thinking are called for, drawing upon the bread and butter of anthropology, for example in understanding the ways in which family relations (kinship), gender, relations of production, meaning and morals are all mutually implicated in the uses of energy” (2005, 2).

Concurrent with Wilhite’s recent work and also based in Oslo, anthropologist Tanja Winther has written a pioneering energy and critical development studies ethnography, investigating peoples’ complex relationships with electricity (Winther 2008). Her research, like Wilhite’s, focuses on the Global South and questions of household consumption and rural electrification. She analyzes the impact of electricity (and the attending developmental meanings of having or not having “light”) when it was recently introduced through new electrical grid infrastructure in rural Zanzibar. Her work looks critically at how electricity transforms a wide range of social practices and relationships – from human relations with the state to human relations with spirits – focusing in particular on questions of difference (gender, generation, class, and so on). Winther’s work shows clearly how an anthropological perspective on energy distribution and consumption becomes a matter of political ecology; that is, who controls technological networks and natural resources, how these are distributed, managed, understood, consumed, and imagined is always a political question. Put otherwise, ethnographies of material power immediately usher us into ethnographies of semiotic power.

I situate my work in this nascent anthropology of energy, contributing to this body of work in four distinct ways. First, I contribute a distinct geopolitical emphasis on the
internally colonized spaces of the Global North, greatly understudied in critical
development and political ecological ethnographies. Second, I make a methodological
intervention, musing on the opportunities, ambiguities, failures and innovations of
engaged anthropology and collaborative research on/with environmental movements and
their experts, already working on energy politics in a given locale. Third, and perhaps
most importantly in an empirical sense, this project focuses on the front-end of the energy
development cycle and its controversies, rather than practices of consumption once the
distributive work of electrical infrastructure is underway. That is, I approach energy
development in its emergent stages, where the consumer is speculative and the
infrastructure is contested. In that sense, mine is an anthropology of energy before it is
transformed into kilowatts and passes through the socio-technical systems required to
make it consumable as heat, light, or fuel in particular communities. Finally, my
approach to the anthropology of energy concurs with Wilhite and Winther in the need for
our ethnographic research to help build better theories and strategies for sustainable
development and sustainable energy use as the “new agenda for an anthropology of
energy (Winther 2008, 2). However, I also situate my approach to energy within the
“colonial difference” (Quijano 1993) that the distinctive – and shifting – identity of
“indigenous” signals today (see also de la Cadena and Starn 2007). In this way, my
understanding of the broad problem we face is not only a problem of climate change,
environmental degradation and its attending human impacts, but (also) of the historically
uneven and rapidly changing relations of power between North America’s indigenous
people and the overlapping jurisdictions and states in which their often resource-rich
homelands are located.
With this understanding of the anthropology of energy in mind, the so-called global “energy crisis” can be seen as not only as a problem of geology, technology, or international politics, but as a deeply socio-cultural problem. “Crisis” is, as Peter Redfield argues, “a perceived state of rupture that invites response,” with rupture itself being “more central to modern order than we frequently choose to remember” (Peter Redfield 2005, 328-329). The “energy crisis” has been (once again) constructed as such: a modern ecological, political, financial, and ethical crisis, bearing on states’ decisions regarding production and markets and on individuals’ decisions regarding consumption. However, the responses invited by this rupture, or perceived state of crisis, are rarely considered at the level of the everyday among communities most impacted at both ends of the energy cycle, from production/extraction-to-consumption.

The rupture that crisis presents thus contains an opening – a possibility for counter practices and knowledges to emerge. Be it humanitarianism in the case of suffering and disaster (as seen in Redfield’s study) or the new technologies advanced by the so-called “green” or renewable energies movement, the idea of crisis inspires proposals for action and change. As such, exploring the cultural dimensions of the “energy crisis” involves more than an assessment of responses to peak oil and climate change or the pressures of urban growth worldwide. Mine is a polyvalent reading which allows the multiple resonances of “energy” and “crisis” to remain present and reverberate in the discussion that follows. Put directly: for the Navajo Nation, the crisis over power is both material and figurative. Like many rural, Native Nations, the Navajo Nation has historically positioned at the production end of the energy cycle (as producers of raw mineral materials for energy development) while economically marginalized at the
consumption end of the cycle (as consumers of electricity, gasoline, and water). In the American Southwest in particular – a place scarce in water yet rich in uranium and coal reserves as well as wind and solar potential – this debate over energy has grown to a crescendo in recent years.

A broader purpose of focusing on the cultural politics of the global energy crisis as it bears on questions of indigeneity is to deepen anthropological understanding of how the “natural” world, while holding ecological properties of its own, is always a domain of human and non-human construction, negotiation, and meaning-making, illuminated by a wide range of ethnographies of “the environment” and its human and non-human dramas (West 2006; Raffles 2002; Tsing 2005; Cruikshank 2005). So-called “environmental” issues have garnered increased attention in many indigenous communities in recent years; however, many Native communities – like many African-American communities – reject “environmentalism,” articulating their struggles as centered on “environmental racism” or the broader framework of “environmental justice.” There is an extensive literature and network of social movements concerning environmental justice too broad for review here, but some foundational works in the field as well as critical and feminist political ecologies inform my understanding (Taylor and 2002; Bullard 2000; Cole and Foster 2001; Pezzullo and Sandler 2007; Rocheleau, Thomas-Slayter, and Wangari 1996; Martínez Alier 2005; Peet and Watts 2004; Escobar 1998).

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33 The U.S. Census Bureau reports that only 19% of American Indian households in the U.S. use electricity as their primary source of heating (while the majority use wood).

34 These approaches approximate the neorealist approach to nature, as discussed by Arturo Escobar (2008).

35 In addition to these published works, my understanding of environmental justice and its critiques of conventional environmentalism and its standard conceptualizations of “nature” stem from my experience
analysis of race, class and (more recently) gender in environmental justice frameworks is a rejection by activists of what Dorothy Holland has described as the “space of the imaginary environmentalist” (Holland 2003). This imaginary encapsulates early critiques of mainstream environmentalism made by civil rights and feminist activists for the movement’s focus on protecting “wilderness” as a nature devoid of humans and relationships of power, and its central actors being predominantly Anglo, educated males. These debates in environmental justice are significant in their potential to shape wider understandings “energy development” itself as a realm not only of fuel and electrical generation but as a generative site of wider, increasingly anthropological debate.

IV. Overview of the Dissertation

A. Part One: Energy and Emergence

Part One of the dissertation lays the historical groundwork for understanding the contemporary urgency and cultural politics of energy development debates on the Navajo Nation and greater Southwestern region. In Chapter I, Extractive Legacies, I offer a brief historical overview of ways in which “the Navajo Nation” as both a people and a place has been produced through the interdependencies of systems of knowledge as they are embedded in historical power relations. The first section of the chapter traces encounters with two extractive/productive projects in particular: energy development and anthropology. The discussion traces the history of oil discovery in the 1920’s as the catalyst for the formation of the modern Navajo Nation government, followed by the

with colleagues and organizations in both the Indigenous Environmental Network and the North Carolina Environmental Justice Network.
energy story behind the traumatic livestock reduction in the mid-1930’s, then turns to consider how the emerging disciplines of American anthropology and archaeology, as specific regimes of knowledge, helped shape how “the Navajo” came to be understood. The second half of the chapter considers recent Diné responses to these histories of energy and anthropology, illuminating ways in which Diné intellectuals are both responding to, incorporating, resisting, and transforming knowledge “about” Navajo territories and populations. Employing an ethnographic approach to these contemporary productions of Navajo identity and history, the section considers the Navajo Studies Association and the Diné Policy Institute as two current examples of Diné knowledge production and history-making.

Following the first chapter is the first of a series of four “Energy Interludes.” These brief stories describe encounters with energy at the level of the body, household, and community, exploring interdependencies, conversions, extractions, and circulations of energy production and consumption. Each interlude follows key protagonists as they negotiate energy use and the uneven relations and wider economies of power in which energy is always generated. The purpose of these energy interludes is to describe intimate relationships to homes and landscapes, showing how the politics of energy and independence on the Navajo Nation is not only a story of tribal and federal policy, global movements and public events, but is also forged on these smaller, more intimate scales. These interludes are also part of the dissertation’s overall argument, in that they unpack Desert Rock’s “alternative”: solar and wind power. Renewable energy technologies have gained more luster because of the dystopia many see in Desert Rock. At the same time, wind and solar are not always counter-technologies to fossil fuel, but are – as the
interludes will show – operating on different registers of difference. In the same manner that Desert Rock creates a space for new meanings, artifacts, knowledges, and subjects to emerge (as detailed in each of the chapters), the interludes as a set show some of the intimate negotiations occurring around renewable energy. My goal is to illuminate, ethnographically, how ideals and politics of energy dependence and independence are in fact, interdependent on broader systems, other bodies and landscapes, and always mediated through specific technologies. The first interlude, “Off-Grid at Adella’s,” introduces my residential dwelling and the phenomenological aspects of my fieldwork experience, as relevant to energy production and consumption.

Chapter II, *Histories and Politics of Energy*, offers a genealogy of energy development and some of its central cultural effects on the Navajo Nation in the 20th – 21st centuries. The first section explores how uranium and coal mining, in particular, transformed landscapes, ecologies, and livelihoods. The second section sketches a history of energy activism, considering diverse and interdependent responses to what many Navajo considered to be neo-colonial practices and relationships of energy development on the reservation. Tracing actions taken by tribal government leaders, grassroots activists, national non-governmental organizations, and indigenous “energy entrepreneurs,” this section shows the diversity of expressions of indigeneity vis-à-vis energy development technologies and common critiques of unequal power distribution, materially and politically.

Chapter III, *The Emergence of Desert Rock*, introduces the Desert Rock Energy Project, the particular, emergent energy development controversy that serves as a fulcrum for understanding broader debates on energy in Navajo country, and beyond. Showing the
multiplicity of Desert Rock – at once technical and cultural-political – this discussion describes the proposed coal-fired power plant and its power in forming and transforming human and non-human life on the Navajo Nation, despite whether or not it ever materializes in the built environment. The second part of this chapter is an explication of my analytic approach to energy development, based in the metaphor of landscapes of power and informed by theories of emergence, detailed in the Introduction. Put briefly, I propose an analytic framework of emergence that understands a proposed energy project like Desert Rock as an emergent object, with the capability – through its processes of becoming – of producing an array of cultural practices, including: new debates on sovereignty and independence, cultural production of artifacts and aesthetic genres of energy politics; and contesting modes of expertise and new hybrid forms of knowledge, themes of the subsequent chapters.


B. Part Two: Power and Productivity

Part Two turns to explore how the polyvalence of “power” plays out through energy development debates and vis-à-vis the emergent object of the Desert Rock Energy Project, in particular. Taken as a set, the three chapters in this section (as well as the Conclusion, to some extent) address the productivity of the emergent through particular events related to Desert Rock’s contested future. The chapters argue that although Desert Rock has been widely portrayed as a “failure,” a “missed opportunity,” or a “bad investment” (by the media, by grassroots activists, by energy entrepreneurs, developers and investors, and by many tribal leaders, as well), its emergent nature has in fact proved
formative and transformative for the humans, non-humans, and landscapes its possibility, and politics, have touched. Each chapter takes up one particular aspect of the generative, productive outcomes affected through this extractive technology.

Chapter IV, *Sovereignty’s Interdependencies*, addresses how the issue of tribal sovereignty is both one of the core stakes in the Desert Rock debate and, at the same time, inadequate for speaking to the diverse politics of place the emergent object of Desert Rock is making visible. Rather than addressing what sovereignty is, is not, or ought to be, this chapter considers how sovereignty is deployed by a wide range of actors, on the ground, engaged in energy debates and Desert Rock’s future, in particular. The chapter traces the contours of “federal primacy” and its many “double binds” facing Native Nations, and then moves to consider the diversity of interpretations of sovereignty among tribal members. It concludes by showing how Desert Rock produces concerns for independence – and *inter*dependence – that exceed conventional discourses of “tribal sovereignty,” when considered ethnographically.

This chapter is followed by the third energy interlude, “The Artist and the Wind Farm,” scaling up the discussion of renewable energy technologies from the home (interlude #1) and rural community (interlude #2) to commercial-scale renewable energy and the politics of localization, its challenges and its requisite wider interdependencies.

Chapter V, *Artifacts of Energy Futures*, explores the material culture, artifacts, and aesthetics of Desert Rock, arguing that these objects mediate a new public consciousness and genre through which energy futures are envisioned and debated. The chapter addresses the expressive practices of both the movements for and against Desert Rock, comparing the ways in which the products of these movements construct subjects,
landscapes, and produce the opportunity for events that put them into wider networks of circulation. On the one hand, it considers work of Navajo and non-Navajo artists whose paintings, poetry, and photographs are responding to Desert Rock and the utopic/dystopic futures the power plant conjures; on the other hand, it considers the tribal newspaper’s political cartoons and border town’s television broadcasts as other genres through which Desert Rock is made more visible, and more real. This surge of cultural production is not only making movements visible, offering new scripts and tropes for interpreting the politics of technology, but is producing new visions of how Diné subjects and landscapes will be transformed through proposed technologies.

Chapter VI, *Contesting Expertise*, argues that Desert Rock has produced new spaces on and around the Navajo Nation for public debate on science and technology and, out of these, encounters through which multiple forms of expertise contest and vie for authority. The chapter emphasizes hegemonic and counter-hegemonic knowledges, and the mobilizations, hybridizations, and interpenetrations of the two. The first section of the chapter analyzes the public hearings held on the Draft Environmental Impact Statement on the Desert Rock Energy Project, highlighting the valences of identity, history, future-making, and memory mobilized through these public demonstrations of opposition or support for the proposed power plant. The hearings emerge as sites in which diverse knowledges and identities compete for authority through the performance of public testimonials. The second section of the chapter considers activist-research produced by the movement against Desert Rock, consolidated in a document proposing technological alternatives to fossil fuel extraction. The “Energy and Economic Alternatives to the Desert Rock Energy Project” is more than it purports to be – not only arguing for
technical and economic transformations to the Nation’s energy economy, but making the
cosmological case for re-interpretations of Diné oral history and cultural practices vis-à-
vis solar and wind technologies.

Part Two concludes with the fourth and final energy interlude, “Energy Flows,”
returning the reader to where s/he began – the off-grid household with multiple human
and non-human interdependencies.

C. Conclusion as Coda

The dissertation closes with a Conclusion, which I prefer to call a “Coda,”
because rather than recapitulating each chapter’s key points it “forms an addition to the
basic structure” (OED). Metaphorically, as a musical term, to end with a “coda” follows
the lyrical pathway that led me into this dissertation project more than ten years ago. This
Coda summarizes the overall argument and integrates the chapters’ themes by way of an
encounter generated by Desert Rock, yet occurring far from the Navajo Nation. A
meeting of anti-Desert Rock activists with executives of the transnational energy
corporation backing the project suggests how, in de Sousa Santos’ words, “the politics of
emergence” often has to do with refusals, or understanding that, “To say No is to say yes
to something different” (de Sousa Santos 2004, 241). The identities and politics emerging
from Desert Rock, while clearly “not environmentalism,” are more inchoate, offering
ways of reading Desert Rock’s ongoing effects, despite the as-of-yet unanswered
question of its construction.

Following the dissertation’s Conclusion, the Epilogue, Reflections on
Methodology, is a chapter-length recollection of my fieldwork practices and meditation
on the politics of ethnographic methodology in the changing conditions of fieldwork today. It speaks to many of the problems of relationality, engagement, and positionality raised in the dissertation’s Prologue. Contemplating several of the ambiguities and pitfalls, as well as potentials in “collaborative” and “activist” research, the chapter focuses on the lines of tension, uneven relations of power, and ambivalences in engaged ethnography, while still arguing for the value in pursuing more networked, relational modes of ethnographic practice. Using STS theories as a methodological anchor, the chapter argues that an epistemological and ontological shift are required in order to advance engaged research in anthropology today, while embracing the “mess of method” (John Law 2004) intrinsic to social science research.

**Conclusion**

In sum, the theoretical question driving this dissertation is, *What landscapes of power does the emergent produce?* And, especially when the complex object in the process of emerging may not ever materialize? As a fulcrum of broader energy politics and entanglements on the Navajo Nation and beyond, the Desert Rock Energy Project (Desert Rock) is featured in the dissertation as a story of the formative, transformative aspects of something not yet – and perhaps never – materialized. In this study, material power is mediating the formation of social relations and cultural artifacts. Desert Rock is a way into understanding of broader stakes in the global energy-development nexus, including negotiations over indigeneity, sovereignty, and the place of civil society or social movements at the table in shaping both policy and more expansive notions of what constitutes “the political.” Moreover, this is a story about how we want to live, and by
what means. Desert Rock’s history and future are at the heart of this global struggle, offering a lens on energy development, as it plays out on the Navajo Nation in this historical moment. Years from now, we may forget about the specter of Desert Rock and the utopia and dystopia it conjured. Yet, even if the power plant is never built, its formative and transformative effects may be lasting in peoples’ everyday lives, memories, bodies, in the landscape, and in tribal and regional politics.

The hopes and dreams of various energy technologies are indeterminate, with alternatives sliding into dominant positions, “clean” becoming “dirty” once again, and the territory of struggle following the political geologies and imaginaries that make mineral extraction possible. My intent in highlighting landscapes of power on the Navajo Nation is to show the mutually constitutive relations of material power and socio-cultural power in the energy-development nexus, underscoring the polyvalence of power in human relations with the many natures and worlds in which we exist – and which we also produce. Emplacing this discussion on energy in a locale apart from laboratories, policy think tanks, halls of Congress, or international summits is an effort to develop an ethnography of the emergent and an anthropology of energy, using energy debates as a cause for thinking, and rethinking, what kinds of economies, ecologies, and polities are possible in 21st century American communities.
PART ONE: ENERGY AND EMERGENCE

In those early times dark ants dwelled there. Red ants dwelled there. Dragonflies dwelled there. Yellow beetles dwelled there. Hard beetles lived there. Stone-carrier beetles lived there. Black beetles lived there. Coyote-dung beetles lived there. Bats made their homes there. Whitefaced beetles made their homes there. Locusts made their homes there. White locusts made their homes there. Those are the twelve groups who started life there. We call them Nilch'idine'é. In the language of Bilagáana the White Man that name means Air-Spirit People. For they are people unlike the five-fingered earth-surface people who come into the world today, live on the ground for a while, die at a ripe old age, and then leave the world. They are the people who travel in the air and fly swiftly like the wind and dwell nowhere else but here.

The surface of the fourth world was unlike the surface of any of the lower worlds. For it was a mixture of black and white. The sky above was alternately white, blue, yellow, and black, just as it had been in the worlds below. But here the colors were of a different duration. In the first world each color lasted for about the same length of time each day. In the second world the blue and the black lasted just a little longer than the white and the yellow. But here in the fourth world there was white and yellow for scarcely any time, so long did the blue and black remain in the sky. As yet there was not sun and no moon; as yet there were no stars.

The white ear of corn had been transformed into our most ancient male ancestor. And the yellow ear of corn had been transformed into our most ancient female ancestor. It was the wind that had given them life: the very wind that gives us our breath as we go about our daily affairs here in the world we ourselves live in! When this wind ceases to blow inside of us, we become speechless. Then we die. In the skin at the tips of our fingers we can see the trail of that life-giving wind. Look carefully at your own fingertips. There you will see where the wind blew when it created your most ancient ancestors out of two ears of corn, it is said.36

36 These excerpts are taken verbatim from Paul Zolbrod’s book, Diné bahane': The Navajo Creation Story (Zolbrod 1984, 36, 45, 50-51).
Chapter I: Extractive Legacies

These excerpts are from a translation of The Emergence, the phase of the Diné peoples’ journey in the Navajo Creation Story as they travel into the fourth, or white world. The Diné spent eight winters in the fourth world, enduring the separation and eventual reunification of the sexes and the influx of a great flood, escaping the rising water by climbing inside a reed and up its growing stalk into the fifth, or “glittering” world where their deities cleared the landscape of monsters, establishing a more extensive clan system for the people who emerged there to become “earth surface people.”37 This is one interpretation of the five worlds through which the Diné have traveled.

There are multiple stories, histories, encounters, and knowledges mutually constituting what today we know as “the Navajo,” simultaneously a political identity, a territory, and a population. As a name, the “Navajo Nation” indicates the recognized, geopolitical reservation territory as well as the American Indian population, the Diné. The second-largest federally recognized American Indian nation in the United States, the Navajo Nation possesses sovereign status that precedes and exceeds the temporal and spatial boundaries of the modern American political system, negotiating its contingent

37 My summary of the Diné Fourth World is based on Zolbrod’s work as well as interpretations of the creation stories taught to me by Wilson Aronilth, Jr., Avery Denny, and Harry Walters in courses I took with them at Diné College’s Center for Diné Studies in 2007-2008. I acknowledge the debate over the reasons for the conflict between women and men in the fourth world, as well as the contested number of Diné clans.
autonomy through archaic and ambiguous treaty rights and imagined spaces (discussed further in Chapter IV).

The space occupied by the Navajo is but one of many possible indigenous spatial formations; the Navajo exercise tribal sovereignty within their Native homeland, defined by four sacred mountains, overlapping the states of Arizona, New Mexico, and Utah and controlling several contiguous and non-contiguous “checkerboard” territories to the south and southeast of the reservation. [Figure 1].

Figure 1: Map of the Navajo Nation

Map shows the Nation’s 110 internal chapters as well as its borders as they overlap with New Mexico, Arizona, and Utah. Navajo Land Department, December 2, 2005.
Such legal and spatial relations (and their attending ambiguities) make
government-to-government relations with the United States continually fraught and under
negotiation, with fissures of opportunity opening and closing with the contingencies of
federal Indian laws (to which it is subject), laws of the states into which its reservation
extends (despite states’ supposedly limited jurisdiction), evolving tribal law, making the
nation-state “only one among several (perhaps many) political geographies imagined,
lived, and even institutionalized under modernity by American Indians” (Biolsi 2005:
240). The high desert of the Colorado Plateau shapes its ecology; deep canyons open up
to forested mountains and Jurassic-era lava formations cast long shadows across
limestone mesas. Fields of corn and squash, flocks of sheep, timber harvesting and coal
and uranium mining have also transformed the landscape and livelihoods of Diné people.

The Navajo Nation is also a diverse community with a long history, oral and
archaeological, unified by language, blood, stories, clans, ceremonies, and dynamic
cultural practices, though each of these criteria are under continual negotiation and
transformation. Its population is both place-based on the reservation and diasporic,
dwelling in and traveling between Los Angeles, Albuquerque, Phoenix and other urban
areas, including the reservation’s border towns of Gallup, Farmington, Durango, and
Flagstaff, hybrid indigenous spaces markedly distinct though also intimately networked
with the reservation. Clan relations$^{38}$ are paramount, often defining formal introductions
among strangers, calling upon both oral histories of Navajo Emergence and written

$^{38}$ One prevailing account of how the original four clans was created involves Changing Woman, the
primary Diné deity, rubbing the skin from her body to produce the four original clans. Clans were
augmented over time, including in this Fifth, or Glittering World, when encounters with Mexicans
produced the Nakaai Din’ é or “Mexican clan.”
histories of encounters with other Southwestern populations. Belonging is indeed defined by clan relations over blood quantum (although the Nation does require ¼ certification of “Indian blood” for membership), producing a coherent practice of recognition among young and old people, despite the great differences in Navajo language proficiency marking the generations. However, belonging is complicated by the fluid borders of the Nation, with especially the younger generations traveling off-reservation to work, college, the military, or relocate with new families; many people experience this as participating in “two worlds”.

Nonetheless, belonging is indeed shaped by clan relations, as well as by a reservoir of distinguishing memories, including the late 19th century capturing and forced displacement or “Long Walk” of the majority of the Diné from their homeland between the four sacred mountains to a federal incarceration camp at Fort Sumner or Bosque Redondo (known by the Diné as Hwééldí) in New Mexico territory. Survivors of the camp returned to their homeland (unlike many displaced Native Nations) in 1868, following a treaty with the federal government. Elders, in particular, frequently invoke the Long Walk and the peoples’ return home as points of reference for locating other events in the past. More recent distinguishing, collective memories include the military service of U.S. Marine Navajo Code Talkers of World War II, who are revered for developing an undecipherable code based on (but not equivalent to) the Navajo language. At most public events, elderly Code Talkers are recognized and celebrated with applause and a palpable sense of pride, and nostalgia.

Class, gender, and generational differences frequently distinguish contemporary markers of Diné belonging, including such “traditional” expressions as speaking the
Navajo language, wearing turquoise and silver jewelry and belts, velvet skirts and shirts, Western-style hats and boots, or ankle-high moccasins with large, shiny buttons, and the distinctive Navajo hair bun called tsiyeel; enjoying mutton, fry bread, and Navajo tacos; or attending Nidåá ceremonies or herding sheep. This dynamic foundation continues to proliferate amidst a wide internal diversity of other practices and expressions of Diné identity, including attending the reservation’s daily flea markets, following Pentecostalism and other forms of Christianity; listening to gothic, punk-rock, and country music; playing basketball and golf; participating in pan-Indian pow-wows and sun dances; participating in rodeos, annual fairs, and Miss Navajo competitions. Though disparate and often up for debate, all of these diverse practices operate as contemporary shorthands of Navajoness, in different situations on and outside the reservation. To be sure, what it means to “be” Navajo is an arena of lively conversation and debate among young and elderly Diné, alike. Various national media, frontier mythologies and disciplinary literatures have interacted to produce enduring images of the Diné, while technologies of self-representation have increased in recent decades with the proliferation of Diné poetry, film, scholarship, and social movements, translating Navajo identity to broader audiences. Diverse forces and knowledge regimes have participated in these processes, from the United States government, to anthropology and archaeology, to Diné medicine men, to a global market for Navajo rugs, jewelry, and sand paintings. Therefore, any attempt to say definitively what the Navajo Nation “is” falls prey to one or more of these often-competing constructions. With this caveat in mind, rather than ask what the Navajo Nation “is” as a people or a place, I instead inquire: How and through
what relations of power and knowledge (political and material) has “Navajo” been known?

This chapter approaches history by way of two projects of modernity shaping knowledge about the Navajo, as a people and a place: anthropology and energy development. Knowledge production is embedded in human and non-human environments, legible through the parallel legacies of anthropology and energy. Broadly speaking, Navajo people have experienced and report upon these parallel 20th century projects as practices of extraction, in which natural resources and cultural-intellectual resources have been removed by non-Navajos for non-Navajo gain. Framing anthropology and energy as extractive legacies puts the two in conversation, reminding us of the materiality of knowledge production and the interplays of power in how a landscape is made, and understood. This chapter deploys a particular narrative of extraction in order to show the resonances between anthropology and energy as projects of power and place-making, concluding with a discussion of how a shift is occurring in this landscape of power. Navajo leaders are taking up energy development as a cause of concern, addressing energy critically, debating ownership and the future; while other Navajo intellectuals are integrating, countering, debating and rethinking anthropological histories of the Nation, generating new intellectual networks of knowledge production where anthropology is no longer the privileged author of Navajo experience. Knowledge production, and practice – while in conversation with non-Navajo anthropologists and other social scientists – is increasingly for themselves. This chapter argues that with these legacies of extraction, there is an emerging movement for Navajo-centered production of
energy resources and knowledge, yielding greater control over material and figurative dynamics of power.

I. Ontological Politics: What “is” Diné?

A. Circuits of Diné Identity

The ontological complexity of this place and its people is due, in part, to attempts at deciphering historical and cultural difference within modern re-arrangements of indigenous governance and identity. Energy development and anthropological engagements are both vectors for many of these transformations, lending material and epistemic dimensions to this ontological complexity. Like the above excerpt from the Emergence Story, translations and interpretations of the past are part of a body of written knowledge drawn upon today by Diné and non-Diné scholars, informing our contemporary understandings of Navajo history. We might envision these stories part of a “vertical thread” of history, a knowledge of the deep past that has been innervated through oral histories, ceremonies, the documentation of early anthropologists and, increasingly, by Diné scholars who interpret the Creation Story through critical analyses of Navajo history, culture, and nationalism (Lloyd L. Lee 2010; Lee 2007; Denetdale 2007).

At the same time, Diné identity and history has been produced through what we might see as a “horizontal thread”: relational encounters with non-Navajos, in particular, in encounters with trans-local, expert knowledges and projects that often sought to

39 I borrow the concept of “vertical threads” and “horizontal threads” of indigenous experience from my colleague Mario Blaser (Blaser 2004b).
salvage or extract objects for the consumption of Navajaness, elsewhere. Through these networks of relations and their respective epistemic differences, this history can be, and has been, rendered by different voices with often differing interests, co-producing a knowledge of, by, and about the Navajo which is historically contingent upon the actors doing the work of knowledge production. This chapter follows some of the mutual dependencies and circuits of how Diné identity, history – their intimately related landscapes – have been understood in the 20th and 21st centuries. Given the necessary concealment of much “traditional” Diné knowledge, these more visible circuits are discernable, in particular, through the situated practices of energy development and anthropology, two projects of modernity that have helped co-produce “the Navajo” as a place and a people.

There is, as in any historical endeavor, a politics in how history and identity are understood and interpreted. My choice to discuss regimes of knowledge that are historically external to (though of course relational with) Diné systems of knowledge is a intellectual and political choice; the origin stories and oral histories of Diné people, once the prime target of American salvage anthropology, are now being written, taught, performed, and rendered by Diné people for Diné people primarily, through ceremonies, through a new pedagogy of Diné education, and through family and clan kinship relations. Alternately, the telling of these stories and oral histories is at other moments being refused outright, marking a self-conscious silence on the part of their bearers, or perhaps what Audra Simpson has called the “ethnographic refusal” of the Native subject (Simpson 2006). Thus, while I am aware of these stories, have read their anthropological interpretations, and even been privileged to experience (though often not fully
comprehend) their telling in ceremonies and in educational settings, I leave them as they are – a rich, detailed, and animated oral and written history that Diné people tell their children, but which apart from the excerpt above, I will not recount here.

Instead, I offer in this chapter a very brief description of the contemporary emergence of the Navajo Nation as a political entity and territory, in the realms of U.S. power. Likewise, I consider the Diné as a diasporic community by tracing key transformations wrought by the dual extractions of energy development and anthropological encounters, countered by the productions emerging in recent Diné intellectual movements. Highlighting these interdependent knowledges – their related extractions and productions – enables a pluralistic and practice-oriented approach to history that focuses on how places, people, and problems come to be known through different events, practices, discourses, products, and encounters with others.\(^{40}\) My approach traces how an entity such as “Navajo” comes to be knowable, both to Diné and non-Diné alike, and asks what effects these particular ways of knowing have on those whose bodies, communities, and lands are at stake in these various formulations. At the same time, this focus on tracing circuits of the various mutually constitutive knowledges that have produced “the Navajo” does not deny that the Navajo Nation is a domain of

\(^{40}\) I recognize here my debt to Michel Foucault in thinking about history. In particular, I find instructive his archaeological method of showing how epistemes are discursively and historically produced more by discontinuities and ruptures than by any natural unfolding of a unitary, disciplinary perspective. I am referring here to Foucault’s earlier works in which he did a critical reading of disciplines (e.g., medicine, psychiatry, natural history, and the prison) to investigate what systems of knowledge and ordering (or “prose of”) of the world made it possible for certain truths and subject positions to be known (Foucault 1965, ; Foucault 1970; Foucault 1973, vol. 1; Foucault 1977; Foucault 1982; Foucault et al. 1980, vol. 1). Rather than reading the history of ideas as a master narrative crafted by a single genius, Foucault looked for discontinuities, ruptures, events, and series; that is, for function, conflict, and signification over norms, rules, or systems. Reading the past in this manner was in fact a way of doing a “history of the present,” to examine how patterns of discourse could constitute and classify life in a particular episteme, or rationality.
meaningful dwelling and history for its nearly 300,000 residents and diasporic population. Nor does this approach overlook how tribal members living on the reservation experience their geography and history as meaningful and different from “the outside,” as much as contemporary trends in social theory would do away with such inside/outside spatial dichotomies and essentializing discourses. Focusing on the relations, extractions, and productions that generate contemporary Navajo identity further recognizes the emergent properties of the place and people – that is, as collectives that are constantly being formed and reformed, moving and traveling, unpredictable, relational, and irreducible.

B. Constructing Narratives of Diné Distinction

It is inherently complex to present a cogent narrative of a people and place, rife with ontological politics and complexities. My attempt is to go beyond representation, however, by shifting the emphasis from a people to a problem – or in this narrative, two problems: the legacies of anthropology and energy development. To that end, this chapter constructs a narrative of Diné distinction following these legacies with extraction as the metaphor that binds them together.

In what follows, I first discuss three historic events that fundamentally transformed the landscapes of power constituting the Navajo: (1) *oil discovery, federal recognition, and mimetic governance*; (2) *U.S. energy interests and federal livestock reduction*; and (3) *women ethnographers and Southwestern archaeology*. I show how these transformations were matters of both extractions *and* productions enacted through historically particular encounters between, on the one hand, a Native population and the
settler state with which they were forced to negotiate, and on the other hand, the growing regime of knowledge known as anthropology. First, as a transformative vector, energy development sets the stage for the construction of the modern Navajo Nation, therefore, the section opens with a discussion of the creation of the Navajo Nation as a political entity by the U.S. government, vis-à-vis oil discovery on Navajo territory in the early 20th century. Second, I follow energy development’s transformative effects into the 1930’s, showing the intimate interdependencies between federal livestock reduction and energy development, considering the interests of two contesting, imagined geographies – the settler state and Navajo homeland – as they battled through the bodies of sheep, residue of the Spaniards (the earlier settler state) and emblems of Navajo sustainability. Third, I explore the legacies of Southwestern archaeology and cultural anthropology – particularly the latter’s feminist strain – and how these regimes of emerging disciplinary knowledge depended upon Navajo material culture and extant intellectuals, extracting artifacts and stories which, in turn, generated an image of “the Navajo” for universities, museums, photography, and other epistemic and aesthetic projects.

These three historic relations and their attending technologies have had effects far beyond the Colorado Plateau, producing an image of “Navajoness,” contributing to globally circulating representations of indigeneity through the artifacts and landscapes these technologies have produced (energy infrastructure, laws, books and monographs, museum exhibits, photographs, and a meaningful livestock economy). At the same time that these products of Navajo history and identity fed academic and popular interest in the western frontier, they laid the foundation for responses to this imaginary by Diné people in subsequent decades.
In the final section of this chapter, I explore how the extractions and productions of these historic relations may appear at first to be one-way, exploitative engagements, but have in fact been marked by mutuality in many cases, generating productive effects, generating hybrid knowledges, counter-knowledges, and interdependencies in emerging movements of Diné critical knowledge production. At once distinct from and mutually constitutive with the exploits of energy and anthropology, these Navajo-centered knowledges work against, work with, and work otherwise from the material and intellectual legacies championed by the institutions of the settler state and disciplinary knowledge. Although often cast as “Western” or Bilagáana (“white”) versus “Navajo” knowledge, this false dichotomy does not do service to the creative, critical, hybrid epistemologies being mobilized and produced by Diné intellectuals today, who draw upon multiple legacies – from the Emergence Story to postcolonial theory – to examine the present conditions of indigeneity, economy, governance, and sovereignty for the Navajo Nation. To this end, I focus on the work and products of two contemporary knowledge-practices on the Navajo Nation and its related networks: the Navajo Studies Association and the Diné Policy Institute⁴¹, two epistemological projects that not only advance particular knowledges of people, place, and power, but embody the creative, constitutional and normative ⁴¹ A third, recent institution that responds to the history of anthropology and to some degree, of energy development (at least as coal and uranium mining and other extractive technologies have transformed the landscape, burial sites, and other material and human remains) is the Navajo Nation Historic Preservation Department (HPD), through which I received my permit to conduct ethnographic research. It is, along with the Navajo Nation Institutional Review Board (IRB), its own type of contemporary knowledge project, invested in protecting and regulating knowledge produced on and about the Navajo Nation – including this dissertation. Because of its recursivity and rebalancing of power over the “outside” anthropologist (though Navajo anthropologists are subject to the same protocol), I discuss the Navajo Nation IRB and HPD in the Epilogue, “Reflections on Methodology,” though I have it in mind here in this chapter, as part of a wider set of contemporary, responses to the epistemic and material extractions that have occurred on the Navajo Nation.
hybrid epistemologies guiding critical knowledge production and redefinitions of “the Navajo Nation” today. At the heart of these historic negotiations their mutually constitutive knowledges lies energy development – its material legacies and unwritten future.

II. Oil Discovery, Livestock Reduction, and Anthropological Encounters

“My family has sheep, cattle, horses, and the land, a lot of crops – corn, potatoes, squash, chilies. Keeping the fire going, keeping the tradition going. Nowadays, if you look at it, who is willing to invest their money in these kinds of things? We’re switching gears to every two-week paychecks and NHA [Navajo Housing Authority] housing. There’s a lot of Navajos who have gotten away from this lifestyle. For me, I try to work on these properties like fencing, and we have a large chunk of land out in the forest area. That’s part of … that’s where you get your thinking. Let’s say you have livestock – sheep and the grazing area – and you maintain what’s going on, and the history, that’s like your strength. It’s not just only you, but your family. Nitsa’kees (thinking). That’s how you get your ideas, from the land, from agriculture.”

My colleague Alex Mitchell shared these thoughts from across his neatly organized desk in his 4th floor office at Diné College, where he curates the museum’s art and archaeological collections. Though his nostalgic reflections on social change might sound like that of an older man, Alex is in his mid-30’s, speaks Navajo as a first language, and when not working in the museum, travels the few miles back and forth between the cinder block hogan on campus that the college provides to him and his parents’ more remote homestead in Wheatfields, not far through the pines from where I am living. Or, he travels to Santa Fe, where he collaborates with leaders in museum

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42 Interview with Alex Mitchell, Tsaile, AZ, June 20, 2008. Unless otherwise noted, all interviews were conducted by the author, in person. Interviewees who requested anonymity have been given pseudonyms.
studies, anthropologists and archaeologists. His emphasis on the direct relationship between the land and human thought is the most explicit I’ve heard, though it is a theme that runs through many conversations I’ve had. Using the land – and not just “land” in the abstract, but a particular, located, familiar and familial area – Alex theorizes what it means to be Diné today.

This profound association with place is the axis for understanding the way in which “the Navajo Nation” has been shaped in the 20th century vis-à-vis various extractive technologies. At the same time, these extractive technologies – like power itself – are productive. Oil discovery and the establishment of the Navajo Nation as a political entity, federal livestock reduction, and anthropological encounters each extract some objects in order produce others. By tracing these extractions and the things they are producing, we can trace the emergence of particular knowledges about Navajo identity as well as the Diné knowledges that sometimes intersect and other times parallel these knowledge projects.

A. Oil, Recognition, and Governance

What we know as the modern Navajo Nation came to exist precisely because of a pursuit for energy to fuel the settler state’s expanding population and territorial control. Scholars, activists, and politicians recognize that the pressure to develop the vast reserves of oil discovered beneath Diné land is what fueled the construction of a new political entity known as “the Navajo Nation” with a tribal council to represent all of the reservation. In the early 1920’s, federal surveyors discovered oil in the Hogback/San Juan region of northern New Mexico (just outside present-day Farmington, NM), prompting
negotiations between oil companies, Diné traditional leaders, and the U.S. Commissioner of Indian Affairs Charles Burke, who assisted the companies in their hunt to secure leases to the oil reserves (Iverson and Roessel 2002, 133). Following this discovery that Southwest reservation territories – considered peripheries and hinterlands by east coast bureaucrats – were in fact rich in mineral deposits, the Standard Oil Company in 1923 signed an oil lease with a small group of Diné men. By some accounts, this contract launched the era of modern tribal governments, foreshadowing the federal reorganization of tribal leadership and establishment of “tribal councils” as recognized institutions in the following decade (Grossman 1995). However, the negotiating process lacked clear representation (in the eyes of Washington, D.C.) on the part of the Navajos, who had no centralized governing body and instead followed customary practices of organizing small, regional councils to respond – often in contradictory ways – to the oil companies’ requests. Notably, many of these regional councils rejected the companies’ early incursions and proposals.

Prior to 1923, the Navajo had exercised self-governance through a mode of governance called the Naach’id, a decentralized system of rule comprised of elders and recognized leaders. However, this customary system of governance was severely disrupted in 1864 by the forced removal and Long Walk, discussed earlier. Since their return home from the Long Walk, the Navajos’ territory has been bounded and regulated by the federal government as a “reservation,” increasing in size over the decades as the Navajos successfully gained control over larger parcels of contiguous and non-contiguous
land to the present-day size of 27,000 square miles. The federal government holds these lands in trust, yet Navajos maintain the rights to sub-surface mineral resources.

Early 20th century industrialization in the U.S. increased the demand for energy supplies and what were once considered barren, frontier lands became seen as rich stores of raw materials for the advancement of modernity and U.S. power domestically and internationally. Regulating the lands, bodies, and legal relations of the diverse, internal population of indigenous peoples – making them into “American Indians” – was part and parcel of this modern/colonial effort. Culturally and linguistically distinct Nations were subsumed into a homogenized, pan-tribal identity as “Indians,” consolidating differences both among and within distinct Native Nations to facilitate their management and effectively establishing “the Indian” as a recognizable “other” in the American experience (Paul Chaat Smith 2009, 6-8).

In Navajo experience, scholars agree on the co-emergence of the Navajo Nation as a political body with the federal government’s interest in enabling energy development. As David Wilkins asserts, “[The Navajo Nation] council was largely a creature of the Secretary of the Interior and certainly not an organization organizing powers of self-government” (Wilkins 2003, 84-85). Peter Iverson echoes, “It is certainly fair to conclude that the Council was created not to protect or to assert Navajo

43 The Navajo Nation includes the non-contiguous reservation trust lands of Ramah and Canoncito, located in New Mexico to the south and southeast (respectively) of the primary Navajo reservation.

44 Foucault’s notion of “biopower” resonates strongly with the operations of the U.S. state on the internal population of indigenous peoples, who (from the perspective of the state) needed to be regulated, managed, and controlled in order to be made to live in particular ways, for particular governmental interests (Foucault 2003). Treaties between Native Nations and the U.S. government such as the Treaty of 1868 between the Navajo and the U.S. spelled out provisions for health and education, among other things, as areas of life to be maintained and managed by state power for the benefit of the indigenous populations, newly enclosed in “reservations” – those very territories also “held in trust” by state power.
sovereignty, but to provide a stamp to approve leases and other forms of exploitation” (Iverson and Roessel 2002, 134). Yet this conscription of Navajo lands and people into the project of burgeoning U.S. power is not just the perspective of critical scholars. The official website of the Navajo Nation confirms: “The discovery of oil on Navajoland in the early 1920's promoted the need for a more systematic form of government. In 1923, a tribal government was established to help meet the increasing desires of American oil companies to lease Navajoland for exploration”.45

Thus, the interests of oil companies and the rise of industrial modernization in the U.S. cannot be separated from the creation of “the Navajo Nation” as such. In pursuit of mineral resources, the federal government structured the Navajo Nation as a government that would enable energy contracts on tribal territory. This new articulation of federal recognition went beyond acknowledgement of the Nation to endorse a new political entity that required the dissolution of the customary *naach’id* and the formation of a three-branch system of governance mimicking the U.S. federal system. The nascent Navajo government was fashioned and facilitated by federal Indian Agent Herbert J. Hagerman, who legally had to be present at any meeting of the Navajo Council. It is crucial to note that this was the construction of a new political entity based on ethnic and historical difference but suited to the machinations of modern U.S. governance and interests of a growing energy industry. However, as we will see, such government restructuring was continually contested in subsequent decades – and often based on a critique of energy contracts with “outside” entities – putting energy development hand in hand with government reform as an arena for critical and political intervention.

45 Navajo Nation website, http://www.navajo.org/history.htm
In 1934, the “Indian New Deal,” also known as the Howard-Wheeler Act, was part of President Roosevelt’s broader plan to “remake” the country. The Indian Reorganization Act (IRA) was the hallmark of this New Deal, resulting in the creation and implementation of federally recognized tribal governments among 181 Native Nations living within the United States, with 77 Nations rejecting the Act’s reorganization of tribal leadership. Bureau of Indian Affairs Director John Collier was the vanguard in this sweeping government reform, urging Native Nations to vote for this new model of organization and – notably – using anthropological expertise to help facilitate and research these transformations. From 1935 to 1953 the Navajo people rejected three times federal proposals to implement an IRA government, and so the tribal government established by federal agents in 1923 persisted until late in the 20th century. The government is centralized in the capitol city of Window Rock, Arizona, with a Tribal Council that currently consists of twenty-four delegates, following a significant reduction in 2009. Delegates represent 110 chapters (communities organized into geopolitical units) across the reservation.

The cultural politics of self-rule are, however, have been not only contentious between the Navajo Nation and the federal government, but also internally, within Navajo electoral, grassroots leadership, and tribal members. For example, in 1989, a decade-long political rivalry erupted between Navajo Nation Chairmen Peterson Zah and

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46 The number of delegates has changed during the 20th century, but the most recent (2009) Council reduction is the most drastic. Prior to the IRA of 1934, the Council consisted of 12-24 delegates; then from 1937-1978 there were 74 delegates. From 1978 to 1990 there were 87 delegates, with the adoption in 1990 of Title II of the Navajo Nation Code securing 88 delegate positions, which persisted until the significant reduction (spearheaded by President Joe Shirley, Jr.) in 2009. Thus, at the time of this writing, the Navajo Nation Council is the smallest it has been since pre-IRA leadership. I am grateful to my colleague Andrew Curley for this summary, which is partly based on David Wilkins’ book, *The Navajo Political Experience* (Wilkins 2003).
his challenger, Peter MacDonald, himself a leader in collectively organizing Native Nations to become players in national energy politics (discussed further in the next chapter).\textsuperscript{47} Zah and MacDonald’s political standoff climaxed with the indictment of then-Chairman MacDonald and many others for irregular financial dealings in land purchases (e.g., the Big Boquillas Ranch deal), nepotistic favors, excessive gifts and loans, and overall questionable government spending. In response, the Tribal Council placed MacDonald on official leave and he was subsequently evicted from his office in Window Rock. Protests led by MacDonald supporters erupted in the streets during the spring Council session and by July, 250 demonstrators seized Window Rock in an attempt to re-instate MacDonald as Chairman, yet were met by an equally passionate group of people opposing MacDonald and supporting Zah. Tribal police intervened and in the riotous chaos that ensued, two people were killed and six injured (Iverson and Roessel 2002, 289-296). Following this tumultuous event, MacDonald was sentenced to over 14 years in federal prison and released early – but not fully pardoned – by outgoing U.S. President Bill Clinton. The effect of this socio-political turmoil of 1989 was a fundamental transformation in Navajo government: the Navajo Nation Tribal Code was amended and the position (and thus the power) of the Chairman was divided into two new positions: President of the Council and Speaker of the Council. In this way, power was thus separated and limited between the executive and legislative branches.

In 2007, in recognition of the enduring debate over government reform and

\textsuperscript{47} Peter MacDonald held the office of Chairman for three (four-year) terms in a row, from 1970-1982. Peterson Zah held the office for one term, from 1982-1986, but was defeated by MacDonald in the 1986 election by a narrow and controversial margin of 750 votes. MacDonald’s fourth term lasted until he was ousted in 1989.
Council leadership, the Navajo Nation Council commissioned the tribal policy think tank, the Diné Policy Institute (DPI), to do a comprehensive study on government reform, comparing the Navajo Nation’s government to other indigenous governments in North America and worldwide. Released to the Council and the public in October 2008, the Report proposed four alternative models of governance for the Navajo Nation: the current Presidential three-branch model, a bi-cameral parliamentary model, a decentralized model of governance, and a fourth model implementing Diné political philosophy (Yazzie et al. 2008). In the Report’s Executive Summary prepared for the Council, the authors emphasized the feasibility and cultural appropriateness of the decentralized model in particular, arguing that “We have adopted Western concepts of government that do not reflect our cultural knowledge” (Yazzie et al. 2008, Executive Summary).

Importantly, this sentiment bore out ethnographically in both my surveys of opinion letters and editorials published in the Navajo Times, a site of ongoing public debate on government reform, as well as in my interviews with tribal members. This sense of incongruity in epistemic regimes persists, despite the integration of “Western” research methodologies, theories, and institutional models into Navajo projects of self-determination. This debate over difference – and how such difference is institutionalized in formal governance – is often taken up in the urgent political and economic concerns over development. With the reservation’s rich energy resources being the central matter of concern for many politicians and activists (who are often one and the same, or with shifting identifications), energy debates always emerge when government reform is in question.

In sum, the legacy of 1923 and Standard Oil reverberates in contemporary
discussions on how the Navajo Nation ought to be organized, economically and politically. Oil discovery was quickly followed by coal and then uranium mining (as will be detailed in the following chapter), becoming inescapable matters of tribal policy and negotiating points with overlapping states and the federal government. Meanwhile, as the question of continued reliance on the reservation’s coal reserves has become increasingly controversial, leading grassroots critics of the Tribal Council have made proposals paralleling the findings of the Diné Policy Institute Report. They are calling for reform of the centralized government and a return to community-based, or chapter-based decentralized governance (recalling the naach ‘id) at the same time they are calling for decentralized technologies of energy production.

This movement towards localization of governance and energy is seen by some Diné activists and politicians, as a counter-knowledge to the imposition of – on the one hand, a government that mimics the federal model – and on the other hand, an economy that is overly reliant on nonrenewable resources. This parallel resonance between government reform and energy development has thus fundamentally shaped Navajo history and contemporary negotiations over the sovereignty of the Nation. Emergent energy debates such as the Desert Rock Energy Project, introduced in the next chapter, are evidence of how this articulation between government reform and energy development continues to structure public debate, nearly a century after oil was first tapped.
B. “Sheep is Life”: U.S. Energy Interests and Diné Livestock Reduction

Though their gene pool is not as “pure” as when the Spaniards first introduced them to the New World in the 15\textsuperscript{th} century, the highly prized Churro breed of sheep plays a complex role in the production of the modern Navajo Nation vis-à-vis energy. For many Navajo people, sheep embody memories of a subsistence economy assaulted by federal policy in the 1930’s as well as enduring meanings of Navajo identity and spirituality – in fact, embodying “life” itself. At the 12\textsuperscript{th} annual “Sheep Is Life” festival held on the rodeo grounds at Diné College in Tsaile, I gather with others to watch a traditional sheep shearing, marveling at how the practitioner pins the writhing animal on the ground and proceeds to de-fleece its entire body with a pair of large scissors, curls of fur falling off to expose tender, downy undercoat, a precise, uniform, and masterful cut.

Nearby, an elderly woman hand spins the rough fleece into a taught skein of wool, suitable for making the intricately designed, loom-woven rugs for which the Navajo are internationally known. This is not just the usual 4H agricultural fair; here, the animal and its human caretakers are involved in an interspecies encounter of meaning, memory, and cosmic significance. Roy Kady, Navajo rancher, weaver, and spokesperson for the Navajo Lifeway organization, expresses the vitality of this relationship:

“Sheep is in every essence an important part of our culture and traditions. It is important to celebrate our sheep traditions and our lifeways. Our Sheep Is Life Celebration re-centers us in the cosmos of our universe; it is our blessingway ceremony for our continuance here on earth, and for the next generations to come.”\textsuperscript{48}

\textsuperscript{48} Roy Kady, Navajo rancher, weaver, and former President of Diné Bé Iiná, http://www.navajolifeway.org, last accessed June 1, 2010.
Sheep are, in this sense, culturally significant as sources of energy in at least two ways: as material resources, sheep are convertible into human work (fleece spun into yarn produces warmth and flesh butchered and cooked produces calories); and as symbolic resources (the number of livestock one owns suggests one’s wealth and herding sheep, in particular, is widely associated as an authentic Diné tradition). Elsewhere, Kady offers this synopsis, moving the animal’s significance beyond metaphor to the very support of human life itself: “Sheep is your backbone … It's your survival. It's your lifeline.”

This meaningful history surrounding sheep is tied to energy on two registers. First, as “life,” sheep embody energy in Navajo cultural and economic practices, providing sources of warmth through their fleece, formerly used as sheepskins for sleeping upon and currently used as spun wool for clothing and blankets; as sources of nourishment and calories through their meat and organs, with mutton served at most ceremonial and familial gatherings and “Got Mutton?” tee-shirts sold in the Nation’s Museum bookstore; and finally, as a source of family wealth, their bodies and fleece traded and sold for other goods and services, or converted into rugs for sale on the global market for Indian arts. However, while sheep embody life (and thus, energy) for many Navajo families, sheep were seen as a threat by federal energy development interests, instigating an assault on the Navajo livestock economy in the form of a calculated “reduction” of sheep that fundamentally reshaped Navajo power at the most intimate level. Thus, sheep figure at both ends of the Navajo energy dilemma: while producing

warmth, food, and wealth to sustain the local economy, they have also been perceived as being in the way of development by broader energy and economic interests.

The claim that “sheep is life” holds political significance as well, incorporating a history of resistance and independence highly valued in contemporary Navajo life. Soon after the 1680 Pueblo uprising against Spanish occupation that occurred between Acoma Pueblo and the colonial capitol of Santa Fe, Navajos began growing their Churro flocks, sedimenting their emerging pattern of agro-pastoralism in the Southwest. Though the Spanish empire retreated, its sheep remained, transforming the ecology and economy of the Native and Hispanic Southwest. By the time of English occupation, sheep figured prominently in Navajo life, so much so that federal agents targeted Navajo flocks as a means of subduing Navajo resistance to Westward expansion. The Long Walk of 1864 and its imprisonment of 8,000-12,000 Navajos at Bosque Redondo devastated the Navajo (at an estimated loss of 25% of the population) and alienated people from their flocks. As part of this calculated displacement, federal agent Kit Carson engineered the destruction of Navajo livestock, nearly decimating the Churro breed. Upon return to their homeland in 1868, the thinned Navajo population experienced rapid demographic growth and territorial expansion, and with these transformations, the flocks regenerated, such that by the 1930’s there were over a million sheep and goats, sustaining what was largely a subsistence economy (Needham 2006, 114).

Meanwhile, the federal government erected a world-class dam on the Colorado River as it traverses the Arizona-Nevada border, creating the Hoover Dam, then the world’s largest hydroelectric power generation station. Begun in 1931, the dam promised power for the burgeoning Southwest. As Needham describes in detail, as the reservoir of
Lake Mead filled with water, there was cause for alarm among federal officials and developers, worrying that the topsoil runoff from overgrazing on the nearby Colorado Plateau (location of the Navajo reservation) would cause premature siltation, handicapping the dam by “preventing maximum power generation” (Needham 2006, 115). Thus, Navajo sheep herds were identified as a problem for development and the threat to regional power production, instigating a second federal intervention into the economy and ecology of the Navajo Nation by way of the sheep. In 1934, to protect their interests in the dam and the cities it would fuel, the Bureau of Indian Affairs (under the U.S. Department of the Interior) intervened in the name of ecological protection to mitigate erosion and damage to the land from overgrazing, positing “livestock reduction” as the only solution.

Again, and even more quickly, the placid herds which thousands of families relied upon were nearly destroyed, and with their bodies went the material security and relative economic independence most Navajos had known. The destruction carried as well a deep-seated cultural and spiritual significance that is not as easily measured. Bureau of Indian Affairs Director John Collier mandated severe stock reduction by all Navajo herders, enforcing sheep round-ups, shootings, and burnings, often conducted in front of herders and their families. Never far from the anthropological project, the federal government, through Collier’s leadership, employed anthropologists to conduct research that resulted in these stock reduction policies. Thus, state-deployed ethnography linked anthropology to the federal energy development project by way of bureaucratic technologies for “managing” natural resources. The outcome was a severe disjunction between a bureaucratic, land management political ecology based in Washington, D.C.
and the relational, experiential political ecology of sheep among the Diné. Sheep were not a commodity in Navajo homesteads as they were in the minds of the federal agents enforcing the round-ups and killings of the animals. Instead, each was known as an individual; herders knew their ewes’ number of lambs by name and these intimate familiarities constituted an ecology of ongoing relationships across the reservation (Iverson and Roessel 2002, 153). Meanwhile, regardless of the stock reduction, erosion and siltation from the Colorado Plateau did not change significantly. Lake Mead filled successfully and the Hoover Dam was completed in six years, generating hydroelectric power for growing regional cities.

Livestock reduction was, in effect, the state’s attack on the source of power that Navajo had cultivated after the Long Walk, undermining the morale, economy, and livelihoods by destroying a crucial link in the Navajos’ political ecology. Many considered the Churro breed to be all but extinct. By the end of the decade, grazing limits and livestock reduction further advanced the destruction of the Navajo subsistence economy, rendering Navajos increasingly dependent on making a living through the capitalist wage economy largely off of the reservation (Daubenmier 2008, 78). With their dependable food supply gone and thus their ability to subsidize poorer neighbors and family members during hard times severely curtailed, Navajo families experienced a crisis that was both economic and cultural.

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50 During the course of my fieldwork in which I lived on a sheep camp with a Diné family, I also noticed that each of the one hundred or more animals was recognizable as an individual to the primary caretakers. Whereas they all looked like one white-fleeced flock to me – differentiable as sheep, goats, lambs, ewes, or rams – to Jay and Angie, the sheepherders, they were unique individuals, with stories, personalities, histories, and names.

51 Notably, in addition to devastating Navajo sheep, the dam destroyed several species of Native fish and other estuarine ecologies due to its blockage and re-routing of the Colorado River.
Yet, the livestock reduction – as a federal measure to protect state interests in energy development – had unanticipated effects, generating powerful attachments to landscape and livestock, securing the sheep’s place (and the Churro, especially) in Navajo understandings of identity, history, and cosmology, as the Sheep Is Life celebration suggests. In many contemporary interviews and recollections by Navajo elders (as evidenced in my own interviews, as well as research done by others), the livestock reduction of the 1930’s is remembered almost as bitterly as the displacement during Long Walk of the 1860’s. Importantly, with the memory of the Long Walk still fresh for many elders, enduring stock reduction solidified an intense distrust of the federal government and its agencies. This animosity manifested in Navajos’ rejection of the Indian Reorganization Act (IRA) proposal to reform their tribal constitution in 1934 (the same year as stock reduction) and their enduring suspicion of many federal initiatives from that point forward (Needham 2006, 116-117; Iverson and Roessel 2002, 152-164). Nonetheless, this cultural-economic-ecological disruption helped create the conditions of increased financial precariousness for the Nation and its members, ushering in post-war federal solutions for reservation “redevelopment” and “modernization” through the infrastructures and machinery of roads, schools, and uranium and coal mining.

As Needham explains, the Navajo attachment to place was seen by federal administrators as one of the central barriers to modernizing the Navajo and making Navajo into “Americans” via either assimilation or termination policy (Needham 2006, 128-130). Thus, destroying one of the primary non-human actors – sheep – connecting the Navajo to their place (and food source) amounted to an experience of displacement,
exceeding conventional meanings of livestock reduction. For instance, the Navajo-Hopi Long Range Rehabilitation Act of 1947 was enacted not only to usher in new infrastructure, but in effect to transform the entire Navajo economy from subsistence to dependence on wage income and integration into ascending American capitalism. Therefore, creating technologies of detachment from place via new infrastructure and equipment, new modes of labor, new economies, and new identities (as “Americans” first, as “Navajos” second), was part of a broader plan to reorganize the relationship between Navajo people, their landscape, and the settler state in which they were increasingly imbricated.

Today, there are more than 4,000 Churro sheep on the reservation, revitalized through targeted herding and ranching programs. Joined by other breeds (many of which were introduced by the federal government as more “marketable” breeds, following the devastation of Churros during livestock reduction), sheep are still in many ways the “backbone” and “lifeline” for many Navajo families. As Alex recounts in the quotation that opens this section, a family that keeps sheep has a source of “strength” and a source for “thinking.” In this way, sheep remain integral to the energy economy, histories, and identities of many Navajo families.

Many mornings at Adella’s homestead, I awoke to the sound of lambs bleating, their mothers’ collar bells sounding their location as they grazed slowly through sagebrush and low-hanging juniper branches. Adella’s sister Angie and her husband Jay organized their days around their sheep – taking them out from the corral at dawn, herding all day through the pastures and woods surrounding Bear Mesa and working with their half dozen sheepdogs to bring the flock home as evening approached. Their value
still exceeding the purely economic, these sheep could be converted to other forms of energy that sustained Angie and Jay’s lifestyle. Occasionally selling a ram or ewe for cash to put gasoline in their truck, these sheep enabled Angie and Jay to drive to the well to haul the water they needed to nourish the flock, and themselves, or drive to do errands in Gallup or Window Rock. On other occasions, selling an individual animal for meat meant money to repair the truck, the hogan, or buy groceries. Springtime shearing meant generating bags of fleece to sell to trading posts and other buyers, enabling Angie to buy back the spun and dyed yarn for her own weaving. Once or twice a year, she might finish a rug that she would hope to sell at a trading post rug show or through her personal contacts on the east coast. And sometimes, on special occasions, she would butcher a sheep for the family to enjoy, though she did this less and less as the cost of winter feed increased, making sustaining a dwindling flock a costly expense of energy resources.

C. Female Ethnographers and Southwestern Archaeology

A third historical encounter shaping Navajo landscapes of power was through the work of early 20th century American anthropologists, such as Washington Matthews, Clyde Kluckhohn, Dorothea Leighton, and a cadre of anthropologists who were constructing the young discipline as they entered it. Franz Boas and his students at Columbia University in New York City further developed the Malinowskian method of ethnographic fieldwork through their fieldwork among indigenous groups in the American Southwest. Boas’ turn against the status quo of evolutionary, hierarchical approaches to culture (such as those of Lewis Henry Morgan), his disembodiment of race, language, and culture, and his concern with social issues (especially questions of
race) created a quasi-activist politics in what became the premier doctoral program in anthropology in the U.S. Boas pioneered a new moment in anthropology, with Native interlocutors as the subjects – and objects – of inquiry.

All of the early PhD’s trained by Boas had some fieldwork or personal connection with Native American communities, even famously, as in the case of Alfred Kroeber’s complicated relationship with “Ishi,” the last of the Yahi Indians (Starn 2004). Ishi’s story is particularly instructive for the history of anthropology in Native America, as it drew other subjects and genres into its making – notably, other women, such as Kroeber’s wife, Theodora Kroeber, who published a quasi-fictional account dramatizing Ishi’s life in “two worlds” that outsold any of the other many academic texts on this “last” and “wild” Indian (Kroeber and Kroeber 2004). Boas also trained the first professional Native American anthropologists, including William Jones (Fox Nation) and Ella Cara Deloria (Dakota Sioux), both of whom developed careers as bicultural, bilingual anthropologists, working within their own Native Nations and beyond, receiving disciplinary recognition for their achievements.52 In addition to being an ethnographer, Deloria was also a linguist, novelist, teacher, public speaker, museum director, and activist, working to transform the social conditions of Native peoples through her public work and her conscious deployments of the politics of representation. Boas also trained many non-Native, women anthropologists, including Elsie Clews Parsons, Ruth Benedict, Gladys Reichard, Ruth Bunzel, Margaret Mead, Ruth Underhill, Zora Neale Hurston (one of the earliest women anthropologists of color, apart from Deloria) and Frederica de Laguna,

52 Deloria herself beget a lineage of well-known Native scholars within her family. She is the aunt of well-known scholar and author Vine Deloria, Jr. and great-aunt of Philip Deloria. She received research funding from the Wenner-Gren Foundation for Anthropological Research and the National Science Foundation.
among others. His students, in turn, trained and worked with one another before and after his death (like Deloria’s work with Benedict and Mead), generating an intergenerational, largely female – and feminist – community of Columbia-based anthropology on Native America (Behar and Gordon 1995).

While Clyde Kluckhohn, Edward Sapir and other male anthropologists also contributed significantly to this emerging representation of Navajo people and lands in the literature and popular imagination, I focus on the contributions of first wave feminist anthropologists working on the Navajo Nation because of their emphasis on gender politics and because of the implications of this complicated, gendered legacy of which I am a part, for better or worse. Among the non-Native women anthropologists, Underhill and Reichard each published extensively on the Navajo in particular, taking Boasian idiographic approaches to Navajo “culture” which they perceived and constructed as primitive (and thus a salve against their own Victorian modernism) and illustrative of the universals of human – particularly gendered – experience (Lavender 2006). As Catherine Lavender argues, these feminist anthropologists were engaged in a political and personal project as much as an intellectual project. That is, they used their interpretations of narratives from their Navajo “informants” as ways of reading against and challenging what they felt were Euro-American culture’s deficiencies. They made certain erasures and readings even at the expense of overriding or glossing contradictions in their informants’ stories or rendering observations through their own, situated agendas of combating patriarchy and valorizing alternative sexualities. The result of their work as it is relevant to this discussion, is that they represented the Navajo as egalitarian, matriarchal, supportive of same-sex intimate relationships and alternative gender roles,
rendering the Navajo altogether “other” from the gendered experience and expectations of the New York “lady” in the Victorian era.

Specific erasures of course made possible this politics of the other; for instance, they did not write about Navajo women’s accounts of participation in cross-border (U.S.-Mexico) market economies, of speaking Spanish, or of wanting to watch television as this new technology became available on the reservation. These observations were written out of the anthropologists’ published, official records of “the Navajo” as a knowable identity, thus producing powerful images of a-historical, romantic figures who fulfilled these researchers’ desires for contemporary, extant examples of cultural difference that might serve as a corrective to the social conditions and modern ills they experienced (Lavender 2006). Furthermore, they did not interrogate just how alternative Navajo sexualities or gender roles might be, historically and in practice. Their early- and mid-twentieth century work was before the turn toward reflexivity in anthropology, firmly rooted in empiricism and aims of objectivity, such that the researchers did not openly situate their positions or perspectives, as is now the minimum expectation in ethnographic practice. Thus, the things they emphasized and perhaps the things they did not (want to) see, may tell us more about the anthropologists themselves than “the others” they set out to describe.

At the same time, these early women anthropologists were part of a broader “movement among anthropologists, artists, and writers, promoting new ways of thinking about culture and cultural difference” (Mullin 2001, 12), a critical turn with its foundations in Boasian anthropology. As Molly Mullin shows through her discussion of women intellectuals and their role in commodifying Indian art, this shift to pluralistic thinking was tied to changing valuations of particular American landscapes, with the U.S.
Southwest becoming the territory through which this perception of cultural difference was being reconfigured. Santa Fe, New Mexico, with its Spanish colonial architecture, snowcapped mountains and diverse Pueblo peoples, emerged as the epicenter of this new intellectual and artistic foment. As members of the New York City intelligentsia took refuge amidst the town’s adobe dwellings and narrow streets, they wrote, painted, collected, adorned themselves, explored, interviewed “the natives,” producing what they had set out to find: a distinctively “American” identity. For many of the women leading this intellectual and artistic movement and relocating to Santa Fe themselves, the Southwest (and Mexico) offered the possibility of a “real” and authentic American identity through “a combination of exoticism and nativism,” aesthetically and geographically far away from Europe and colonial New England (Mullin 2001, 26). This network of women created these new identities (for themselves and, they hoped, for the nation) through practices of consumption: as patrons of Indian art, they blended lessons drawn from their anthropologist peers’ emerging concepts of “culture” and their political backgrounds in the feminist suffrage movement, many becoming activists for “Indian affairs.” However, while anthropological knowledge informed this intellectual and artistic movement, it was also positioned against the movement by intellectuals who criticized anthropology’s institutional ties and claims to expert knowledge; at the same time, it was reinforced by others as “science” when faced with independently funded, amateur ethnographers such as Mary Cabot Wheelwright who proposed building a Navajo “religion, art, and culture” museum in Santa Fe, transgressing disciplinary boundaries between religion and science (Mullin 2001, 98-100).  

For all their

53 Notably, the Wheelwright Museum was eventually built with a gift of land made by Wheelwright’s
progressivism, however, this network of women rarely included Navajo or other Native intellectuals; Native identities were consumables for a kind of cultural nationalism that reinforced Anglo fantasies of difference, without consideration of the uneven socio-cultural landscapes of power at work in the Southwest.

The concept of culture-as-essential underlying this commodification of Indian art and, by extension, the Indian subject, found its “proof” in post-war anthropology, with Diné peoples frequently positioned as the essence of indigenous authenticity. In her Introduction to *The Navajos*, originally published in 1956, Ruth Underhill sums up the image she has created, in the spirit of Boasian salvage anthropology: “In these days, when Indian customs and ceremonies are changing, the Navajo stands out in many minds as the typical, unspoiled Indian” (Underhill 1983, 3). Her ethnography ensues, chapter after chapter, to produce and confirm this idealized image. On the other hand, Underhill and Reichard were at the cutting edge of their field at the time, advancing arguments about difference largely centered on gender and sexuality, challenging popular culture and the conventions of social science alike. Focusing on what they saw as essential, universal connections between women and the land, the fluidity of sex and gender, the importance of culture over biology, and a critique of modernity, these feminist anthropologists in some sense anticipated broader social theories by several decades. In essence, the rise of American Anthropology, as a discipline and practice, required the Native subject, who thus became known through the intellectual and political frameworks and historical situation of this cadre of New York City based, predominantly female colleagues, sisters Amelia Elizabeth White and Martha Root White, owners of the estate in Santa Fe that became the present-day School of Advanced Research (Mullin 2001, 101).
ethnographers – some of whom themselves, were Native. So prolific was the early documentation of Native lifeways and customs by these anthropologists that the politics of knowledge production in this uneven relationship haunt American Anthropology even today.

Boas’ legacy and the new American Anthropology he and his students pioneered may be more revolutionary than critical narratives of the discipline’s history tend to acknowledge. In fact, as Starn notes, “it could be argued that Boas and his generation, for all the later criticism, did more to reshape opinion in progressive directions than we ever will in this age where no one beyond our narrow little academic world seems to be very interested in what anthropologists have to say” (Starn forthcoming, n.p.). Indeed – and as Lassiter details – the early history of American Anthropology was a history of transforming the way America imagined indigeneity and developing an ethics of intervention for social transformation (Lassiter 2005). At the same time, outside and at the edges of the discipline, anthropology has been remembered by many Native people as, at its worst, an exploitative project of “pure research” in Vine Deloria, Jr.’s terms, or at least, as “predatory” and “embedded in systems of power and authority that privilege certain kinds of knowledge [about Navajos]” (Deloria, Jr. 1988). The way out of this privileged epistemic position might be, returning to Deloria, one of anthropology’s most vocal critics and allies, a transformation on the part of the researcher-subject her/himself. In one of his final writings, Deloria asks anthropology to write against its own extractive knowledge practices, making a “necessary request [that] basically asks scholars to develop a personal identity as concerned human beings and move away from the comfortable image and identity of ‘scholar’” (Deloria, Jr. 1997, 221).
There are, of course, feminist anthropologists who came after Underhill and her mid-century cohort, renovating the practice of collaborative ethnography. In particular, the work of anthropologists Charlotte Frisbie and Klara Kelley stand out, who each worked collaboratively with Diné intellectuals on autobiographic and traditional knowledge research, respectively. For example, Charlotte Frisbie collaborated in the writing and editing of autobiographies of two Navajo elders. *Tall Woman* details the life story of Rose Mitchell, a Diné midwife and weaver, as Mitchell relayed her story to Frisbie when she was nearing 103 years of age (Mitchell and Frisbie 2001); while *Navajo Blessingway Singer* is a collaborative autobiography of Frank Mitchell (Frisbie, Mitchell, and McAllester 2003). Frisbie’s earlier work on the Navajo Nation investigated Diné puberty ceremonies (Frisbie 1967), research that would be nearly impossible for a non-Navajo ethnographer today and perhaps even very difficult for a Navajo anthropologist, given the changed political and epistemological climate on the Navajo Nation of what objects of inquiry are considered politically permissible for investigation and publication. Klara Kelley’s ethnographic research in collaboration with Harris Francis details Navajo sacred places (in their book by the same name), linking environmental knowledge with cosmological and spiritual knowledge in a manner that foregrounds Navajo voices, perceptions of place, and customary knowledge (Kelley and Francis 1994). Substantively, Kelley and Francis’ work, in particular, has been crucial and formative as background for this project. Both Frisbie and Kelley figure prominently as part of the complicated cultural legacy of non-Native women anthropologists working on the Navajo Nation – of which I am now also a part.54

54 Incidentally, I am indebted to both Charlotte Frisbie and Klara Kelley for their support of my work and
Coterminous with this cadre of female ethnographers interacting with contemporary Navajo women and men, archaeology developed in the Southwest as a set of practices, institutions and discourses, unearthing Diné and Pueblo artifacts to construct a narrative of history and identity rooted in material culture. The former dwellings (or “ruins”) of the American Southwest have become emblematic of the region, geometric signs of a mysterious past and distinct place, commodified today to promote tourism and regional distinction. Places such as Chaco Canyon, Canyon de Chelly, and Monument Valley – all sacred sites to the Diné, currently within or contiguous with the reservation’s boundaries – have in the 20th century been sites of active excavation and archaeological research. These places are also continued sites of reverence and ceremonial practice for area Native Nations as well as for New Age pilgrims from around the world, often contributing to significant strife among these different religious traditions.  

The Southwest’s landscape of power has been read through various disciplines, with archaeology often being at odds with the interpretations and intentions of indigenous communities. Like anthropology (as well as history and sociology), archaeology contributed to developing a sense of place in the American Southwest. The history of archaeology in Native America is complex and particular to specific Native Nations and the politics of particular material remains, and has been detailed extensively elsewhere for sharing suggestions and resources with me during my fieldwork.

55 My colleague, Kristina Jacobsen, describes the New Ageism she encountered while working as a park ranger at Chaco Canyon. American and European tourists would frequently arrive to the park bearing gifts of crystals, feathers, or other exotic objects imbued with global meanings of a particular religiosity – their material “tickets,” so to speak, to Chaco’s distinct landscape of power. This and other debates surrounding Chaco Canyon as a place – such as the question of whether or not to pave the Chaco Road – were poignant elements of my education in the politics of Southwestern and tribal landscapes, but are not recounted in this project. I am grateful to Kristina for our conversations which have helped me clarify the points in this discussion.
(Thomas 2001). In the early 20th century, regional archaeological societies proliferated in the Southwest, spurred by initial expeditions from New York and New England and inspired by the opportunity to use archaeology to construct a regional identity for (originally non-Southwestern) newcomers to the region that depended upon – but at the same time excluded – the Southwest’s Native residents. As Snead argues, “Their [archaeological societies’] effort to classicize the Native American past and use it to construct a regional heritage, in essence an ‘invented tradition,’ was widely successful among local Anglo-Americans alienated from their cultural roots and insecure about their place in the Union” (Snead 2001, xxv). It was as if the desirable traits of “Indianness” could rub off on these Anglo newcomers by virtue of their association with a distinguishable place. This simultaneous inclusion and exclusion – embracing and rejecting Native populations – speaks to the larger American anxiety and fascination with American Indians, grounded in an ambivalent “debt or threat” perception by many non-Natives of Native Nations.56 Thus, partly to assuage alienation and insecurity among the non-Native settler population, archaeologists constructed histories of Diné (and Pueblo) landscapes to develop a regional, distinctly “American” identity, tangible through material culture. However, because archaeologists’ interpretive power to render particular objects meaningful and valuable (and other objects, less so), depended upon Native artifacts, an imbalance of knowledge claims emerged that persists today in contestations over cultural patrimony and historic preservation on the Navajo Nation and beyond.

56 I take this notion of the ambiguity of “debt” or “threat” in American-to-American Indian relationality from public comments made by Orin Starn, Indigenous Citizenships Roundtable, Chapel Hill, NC, March 26, 2010.
Museums and tourism were similarly made possible by these new antiquarian imaginaries, while the place of the contemporary Native person amidst these institutional developments remained uncertain. Southwestern archaeology constructed a heritage built not only by Navajo laborers working for Harvard students conducting excavations, but through the slow synthesis of differing research approaches within a growing discipline (Snead 2001, xxvi). Navajo places and people were thus incorporated into a burgeoning American imaginary and regional identity that both amplified and silenced them as subjects. As Philip Deloria has shown, the assertion of a distinctly American (versus European) settler subject depended precisely on the simultaneous appropriation and eradication of the Native subject (Deloria 1998). On the other hand, Southwestern archaeology illuminated and resignified a landscape formerly considered to be the barren frontier in the modern American imagination, bringing to life distinctive cultural artifacts, the assurance of a deeper past, and a sense of impenetrable mystery. It began with an interest in artifacts and built environment, “to acquire museum-quality specimens of material culture; and second, to understand who had built the impressive structures, how they had lived, and what had become of them” (Kantner 2004, 16). This new science contributed to an emerging regional identity of the American Southwest’s landscape in which the majestic landscape and its inhabitants were symbolically intertwined and constructed as romantic remnants of a pre-historic past.

One of the ongoing debates in Southwestern archaeology directly impacting the way the Diné past is understood today involves the disputed identity of the anaasázi. Archaeologists identified “Anasazi” as one of three major archaeological traditions (reflecting patterns in material culture only) in the Southwest for at least the past 2,000
years, along with Hohokam and Mogollon, the Anasazi and Mogollon being the two neighboring “ancestral Pueblan” groups in the northern Southwest and the Hohokam being a distinct group of desert dwellers farther south (Kantner 2004). As a Navajo word, *anaasázi* is commonly translated as “enemy ancestors” or “ancient non-Navajos” (Ibid: 9) but alternately translated for me in the course of my field research as “neighbor,” or “the one who lives nearby” by various Diné sources. Since the 1930’s, the term “Anasazi” dominated the literature on Southwestern archaeology as the appropriate way of speaking of the peoples who had formerly inhabited the region, but went out of vogue in recent years, partly in response to criticism by contemporary Pueblo Indian people who argued for the term “Ancient Puebloans,” claiming this direct connection to their ancestors. As John Kantner notes, this shifting nomenclature is highly controversial and problematic, obscuring more than it reveals, congealing a vast diversity of pre-Contact Southwestern social groups into one category. However, it is problematic for reasons of heritage politics among Navajo people, as well, who maintain oral traditions confirming their ancestral links to these pre-Contact peoples also claimed by the Pueblos.

Privileging one group over another (the contemporary Pueblos over the contemporary Navajos), “Ancestral Puebloans” remains the conventional term in Southwestern archaeology and among the National Park Service, but is largely rejected by Navajo intellectuals. Diné historian and anthropologist Harry Walters stresses the importance of speaking of “Anasazi” cultures and ruins, instead of “Ancestral Puebloan”

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57 Kantner recognizes the controversy and the difficult position of archaeologists in having to make a choice about language and following certain conventions, even while admitting, “I have never been happy with any of the alternatives” (Kantner 2004, 10). As a note: Kantner cites the 2001 article by Harry Walters and his colleague Hugh C. Rogers (cited in the text above), explaining the Diné critical perspective on this nomenclature.
sites (Walters and Rogers 2001). Walters argues that speaking of “Ancestral Puebloans” is a political choice as much as a parlance of history, offensive to the many Diné who, like the contemporary Pueblo peoples, consider Chaco Canyon and other sites in the Four Corners region to be sacred parts of their own cultural patrimony. To speak of “Ancestral Puebloans,” he argues, is to only acknowledge the connection between New Mexico’s contemporary Pueblo populations, thus ignoring the Navajo descendents of these earlier peoples.58 Navajo oral history places the time of Navajo Emergence into the present fifth, or Glittering World as, “eight times Old Age has killed ago,” with “Old Age Kills” calculated as 102 years, or the length of the human life span as established by the Diné Holy People. This places Navajo arrival in the Southwest region at around 1100 A.D., roughly commensurate with or slightly earlier than most archaeological accounts (Walters 2006: 5). This politics of heritage is unsurprising, a reminder of the dissonance many Diné intellectuals continue to feel with their non-indigenous peers in the broader fields of anthropological knowledge production. Critics like Walters, on the margins of the professional discipline, feel the extractive impulse of anthropology in its devotion to advancing the next new lexicon rather than carefully considering the stakes of naming and recognition for the people who continue to inhabit, negotiate, and build these landscapes.

58 I paraphrase Harry Walters’ argument from his 2001 article with Hugh C. Rogers as well as from his “Navajo Oral History” course at Diné College, Tsaile Campus (AZ), in which I was a student in the Fall of 2007.
III. Diné Intellectual Production: Redefining Epistemologies

A. Emplacing Knowledge

In the reflection that opens the previous section, Alex notes the importance of agriculture to thinking, taking the work he does to the landscape as a point of departure for understanding his self and place in the world. Of course agriculture itself is a mode of extraction, converting the land and its products into energy for consumption. As his work of repairing fences, planting vegetables, raising sheep, and keeping a fire going in the woodstove shows, these are productive extractions, each dependent upon the conversion of energy from one form to another. Everyday, material practice is about, he argues, “Nitsa’akes (thinking). That’s how you get your ideas, from the land, from agriculture.” As such, energy practices become the basis for thinking, suggesting a landscape epistemology which, in turn, reinforces the materiality of theory; that is, thought is rooted in particular practices of energy use and landscape-making, which in turn have specific outcomes (the construction of a fence, the planting and eventual harvesting of a row of squash), involving wider ecologies and actors than conventional understandings of epistemology allow. Knowledge, in this formulation, is the result of praxis and of relationships with a particular location. Knowledge is embedded in human and non-human relationships, and is never produced ex nihilo. In other words, knowing is always rooted in doing and in being, involving the work of and interaction with others who assist in producing knowledge and making it relevant. Such mutually constitutive processes of thought, action, and identity (or, said otherwise, of knowing, doing, and being) illuminate embodied ways in which Navajo subjects are producing themselves today, specifically in terms of redefining epistemology. The consequences of this epistemology hold that knowledge is not made “out there”, but rather is produced through particular practices,
embedded in specific landscapes and relations. At the same time, this is not a sterilized, “pure” knowledge or epistemology; its landscapes of power have been heavily influenced by practices such as agriculture or sheep-herding – both traceable to colonial techniques of making sedentary farmers out of the nomadic Diné. Nonetheless, thinking from a place – from the land – generates a landscape epistemology with historically particular, embedded relationships. Recent projects of Diné knowledge production, discussed in this section, demonstrate different methods of development of a landscape epistemology. I argue that these epistemologies are tied to landscapes because they are partially responding to the landscapes of power on the Navajo Nation produced through the dual legacies of anthropology and energy development.

In the case of anthropology, given the discipline’s foundational interest in the Navajo Nation (where it does often seem that “every Navajo has an Anthro” – or perhaps two anthros) emerging movements to redefine Diné epistemology are partly in response to the extractive and productive legacies of the discipline. Anthropology has profoundly shaped how “the Navajo” as a people and place have been understood, transforming Navajo ecologies, landscapes, and communities, its extractions of narratives, ceremonies, material remains, linguistic patterns, even bodies themselves traceable through products such as books, audio recordings, films, photographs, monographs, stories, museum collections, pottery fragments, jewelry, rugs, and subsequent generations of ethnographers (among which I count myself, for better or worse). The dual move of extraction and production wrought by anthropology remains at the center of the politics of knowledge production in/of/with Native communities, when the question of who speaks about Native lifeways enervates redefinitions of indigeneity and knowledge. In
this sense, historic relations with non-Navajo epistemologies and projects such as
anthropology are assisting in producing new subjectivities and senses of place that – like
our speaker above – are very much shaped by an historic sensibility and sensitivity.
While this may at first glance seem like a continuation of the previous renaissance of
indigeneity that occurred with the Red Power Movement of the 1960’s\(^5\), many emerging
articulations of indigeneity and knowledge on the Navajo Nation are being worked out in
relation to the problems associated with particular landscapes; this re-working includes
rethinking energy production landscapes and how extractive industry has reshaped
Navajo relations with their own understandings of history and place.

Yet, the energy development legacies of government reform through oil discovery
and livestock reduction, combined with the projects of anthropology and archaeology in
the Southwest have not been merely oppressive technologies as some resistance theories
would suggest, but rather, have generated new representational objects and discourses,
opening avenues of dialogue and response, producing debate about the politics, theories
and practices of natural resource development and research. These dialogues have yielded
new institutions of research on the Navajo Nation whose hybrid methods aim to redefine
Navajo epistemology for the 21\(^{st}\) century, taking energy development and government
reform as a central, and interrelated, area of concern. In particular, the Navajo Studies
Association and the Diné Policy Institute have become communities of practice in this re-
thinking of Navajo history, identity, place, and knowledge, responding to the legacies of

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\(^5\) See Paul Chaat Smith and Robert Allen Warrior (P.C. Smith and Warrior 1996) for an excellent history of
this pan-Indian movement and some of its effects on the Navajo Nation. See Emily Benedek for more
detailed discussions of the struggles surrounding the Navajo-Hopi Land Dispute (Benedek 1999).
anthropology and energy development and their effects. As examples, these two institutions of knowledge are discussed below.

A word, however, on epistemic difference: Though the interdependencies between Diné knowledge and so-called Western knowledge shape contemporary research practice and policy work, Diné epistemology is not solely formed in a dialogic process between powerful external agents and the Diné. As a dynamic system of knowing, being and doing, it calls upon a distinct trajectory, rooted in historical difference. It incorporates an oral historical knowledge illuminating the epistemic and ontological difference of the Diné people, evident even in translation, as excerpts from The Emergence story at the outset of this chapter demonstrate. Moreover, as Alex’s reflections suggest, there is a crucial relationship with a specific place and landscape-making in Diné identity formation. Of course, this was precisely the lure for anthropology, especially in its early, Boasian, “salvage” methodology, when theories of difference depended on essentialist notions, possibilities of erasure and extinction and Orientalist notions of “the other.” Thus, Diné ceremonial, medicinal, philosophical, and practical knowledge became the subject of anthropological inquiry in the early 20th century, its extraction yielding tomes of research penned by early ethnographers with the assistance of Diné intellectuals like Adella’s grandfather, Curly Mustache.

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60 I use “dialogic” and “dialogism” in the sense developed by M. M. Bakhtin, which emphasizes the distinctiveness of those dialogically engaged but also recognizes the dynamics of power differentials, offering useful ways of conceptualizing those differentials (e.g., means of incorporating authority, social image, dependence on the genres of the powerful, etc.) (Bakhtin and Holquist 1981).

61 There is a vast literature on the intimate relationships between indigeneity and place, theorizing the relationships between humans and environments that produce identities and heritage (Basso and Feld 1996; Ingold 2000, 132-152).
As should be clear by now, these research extractions were co-eval with the landscape extractions exacted by energy industry, yet with both legacies producing while extracting. The result of the anthropological legacy, of course, was the production of a vast literature on Diné knowledge – written by non-Diné scholars for consumption by non-Diné scholars. The fact that anthropologists translated this ontologically and epistemically different parallel trajectory of knowledge to the “outside” world, and that in subsequent years many Diné have consulted these translations as they re-interpret the stories for new generations is part of the complex interplay and mutual dependencies of knowledge regimes in this history of ethnographic research. These refractions of speech, and their shifting narrators, speak to what Mikhail Bakhtin called the “heteroglossia” of stories (Bakhtin and Holquist 1981) and show the complications in pursuing “authentic” Diné perspectives in their English language, anthropological translations. On a related note, the legacies of anthropology and energy development produced new Diné subjects with new possibilities of laboring in these industries. Navajo anthropologists emerged, as did Navajo energy specialists, though the historically particular dynamics of power/knowledge in the region meant that, in general, most Diné knowledge workers were research assistants or “informants” and most energy workers were miners or heavy equipment operators. Expertise was still located “outside.”

The complex productivity of this power/knowledge dynamic has, however, opened a critical space for Diné intellectuals to engage these legacies of anthropology and energy on the Navajo Nation, producing knowledge today that calls upon and reinvents Diné epistemology and research practices. Recognizing the historical inequities of knowledge and energy production on the Nation, Diné intellectuals are building new
institutions of research as intellectual and political projects. In what follows, I present two recent trajectories of ongoing Diné intellectual movements that I encountered during my fieldwork in order to show how Diné epistemology, identity, history, and place is currently being re-thought by Diné scholars, for both Diné and non-Diné audiences. I choose to approach this ethnographically to emphasize the vibrant, living practices and political urgency among Diné intellectuals as they engage these legacies. An ethnographic approach to these intellectual movements further underscores the knowledge-practices Diné intellectuals deploy that include but also exceed the written text.

B. Navajo Studies Association and the Politics of Knowledge

The indoor basketball court of the Shiprock branch of Diné College, with bleachers stacked against the walls, scoreboard raised, and metal folding chairs arranged in neat rows facing a small, skirted stage, was the site of the 18th Navajo Studies Conference. Entering the gym, I saw Kristina, my anthropologist friend and colleague, sitting cross-legged on the rubber gym floor at the base of the bleachers, pen and pad in hand, attentively taking notes. I waved hello, then took a seat in a folding chair next to an elderly Navajo woman, figuring it was better to spread the non-Native anthropologists around the audience, rather than huddling together. On stage at the microphone, the keynote speaker remarked, “the challenge is succeeding in two worlds while maintaining culture and identity. We must go about reaching a sustainable nation that incorporates

62 Elsewhere, I have developed the idea of “knowledge-practices” with my colleagues Maribel Casas-Cortés and Michal Osterweil (Casas-Cortés, Osterweil, and Powell 2008).
Navajo culture and values.” She then posed a question that framed all of the day’s sessions that followed: “The key question here is, what would be the model of development to allow the healthy growth of the Diné Nation?”

The theme of the 2009 conference was “Re-Defining Navajo Values and Practices for a Sustainable Future,” with three days of sessions, performances, and exhibits dedicated to rethinking “sustainability” in Navajo terms, exploring energy issues, environmental concerns, and economic well-being. Shiprock seemed an appropriate location for such a discussion, given the thick yellow fog of pollution that hovered in the sky above, the result of emissions from the two 1960’s-era power plants within twenty miles of town.

Following the keynote address, Robert Yazzie, Director of the Diné Policy Institute and former Navajo Nation Judge, responded to Dr. Chief’s provocation by situating sustainability as a problem of knowledge, asking, “How do we sustain Diné knowledge?” His proposed solutions include developing Diné researchers, creating research methods using Diné perspectives, and calling upon advisors like the Hatathli Association (association of traditional practitioners/medicine men) as well as other Navajo experts, especially elders. Such methods have been the guiding practices of the Diné Policy Institute, a research center that Yazzie oversees, based at Diné College. Gesturing toward a power point slide projected on the cinderblock gymnasium wall, Yazzie explained a multi-colored diagram of a “Diné Decision-Making Process.”

63 Public remarks by Dr. Karletta Chief, Diné Hydrologic Scientist, Navajo Studies Conference, Shiprock, N.M., March 12, 2009.

64 Public remarks by Robert Yazzie, Former Navajo Nation Chief Justice and current Director of the Diné Policy Institute at the Navajo Studies Conference, Shiprock, N.M., March 12, 2009.
model, of several, for critical thinking centered around Diné values. The persistent challenge, he argued, is to find out how this process is put into practice and applied to specific problems on the reservation, citing littering (ts’iiłzéí) as a key sustainability issue to be tackled. His assessment merged the problem of epistemology with the problem of methodology; his project – and that of many of his peers – is to determine how a particular worldview and its attending ethics are translated into research practice and specific tribal policy changes in the arena of government reform and development projects, in particular.

Such inquiries into the nature, production, protection, application, and future of Diné knowledge are at the core of the Navajo Studies Association’s work. Core inquiries – sustainability, sovereignty, and interconnectedness – have been linked through the practice of the Conference and its ongoing pursuit of the appropriate translations for such concepts. Two years before I found myself in the Shiprock gymnasium contemplating the issue, I was seated in windowless auditorium in the heart of the six-story Hatathli Building on the Tsaile branch of Diné College, where the 17th Navajo Studies Conference assembled to interrogate what the concepts of “sovereignty” and “interconnectedness” (Alch’i’ Silá) mean for the Diné people. Calling upon the Diné methodology of thinking, planning, life necessity, and future happiness as well social science disciplinary traditions, intellectuals at these meetings critically assessed the state of Diné knowledge and its ability to address these core inquiries, both admittedly products of encounters with non-Diné epistemologies.

65 This methodology is often described and translated in different ways. I use the model taught by Wilson Aronilth, Jr., Traditional Practitioner and Faculty at Diné College, and described in his course reader, Foundation of Navajo Culture.
Yazzie, at the November 2007 keynote session on sovereignty – in which the legacy of energy development on the reservation was a core concern – rejected terms such as “economic development” as a lens for understanding sovereignty, insisting, “let’s talk about sustainability, instead – that’s a concept that fits in with our way of thinking.” In his keynote address, he argued that “interconnectedness is fundamental to understanding the Navajo concept of the environment”. At the evening banquet, Dr. Manley Begay of the Native Nations Institute discussed the concept of Alch’i’ Silá through the framework of quantum theory in physics, discussing wave particle dualities, invisible streams of energy that connect any two objects, the butterfly effect and chaos theory, and Einstein’s ideas about frequency and time. Dr. Begay’s deployment of Western scientific traditions and energy theories as a way of understanding a Diné concept illuminated the epistemological fluency and theoretical interdependencies among many Diné scholars, as well as the discursive power of scientific referents in describing epistemic difference.

The Navajo Studies Association prefigured what is now a growing movement nationwide of Native intellectuals forming new academic associations and expanding the theoretical critique of indigenous studies. According to a spokesperson for the newly formed Native American and Indigenous Studies Association (NISA), “The future of critical theory is indigenous. Indigenous Studies is best positioned to address specific


67 Yazzie, November 2, 2007.

68 Manley Begay, Director of the Native Nations Institute, Univ. of Arizona, at the Navajo Studies Conference, Tsaile, AZ, November 2, 2007.
‘American’ issues, including intersubjective philosophy, environmental protection, nation-building, and research methodologies.”69 Today, the Navajo Studies Association (NSA) focuses this intervention in social theory, placing attention on the way that these interdisciplinary issues matter in Diné society and history. Formed over twenty years ago, the greatest recent shift in the NSA is, according to speakers at the 2007 and 2009 meetings, the shift from knowledge production by non-Diné scholars to knowledge production by Diné scholars. At these most recent meetings, presenters and attendees have been primarily Diné, with a few long-time, non-Diné scholars, like historian Dr. Peter Iverson and anthropologist Dr. David Brugge, commenting on decades of collaborative research with Diné researchers and critiquing the dominant perspectives in their fields. As Iverson argued in 2007, “I’ve been upset about historians’ [of Navajo] unwillingness to deal with the 20th century. All historians were writing about the 19th century … We need to talk about Navajo history as a story that is continuing.”70 Responding to Iverson, Dr. Jennifer Nez Denetdale – the first Diné woman to receive a doctorate in history and a board member of the NSA – argues that this “story that is continuing” must be “Navajo-centered,” meaning “we have to start doing our own work, on ourselves, in our words. Our work as academics has to be interventions and critiques of ways Navajos have been presented to ourselves and the larger society.”71

In Reclaiming Diné History: The Legacies of Navajo Chief Manuelito and Juanita, Denetdale critiques conventional (Anglo, Western expansionist) narratives of

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69 Speaker, Native American and Indigenous Studies Association Panel at the Conference of the American Studies Association, Albuquerque, New Mexico, October 17, 2008.

70 Peter Iverson, Historian, Navajo Studies Conference, Tsaile, AZ, November 1, 2007.

Navajo history as “colonial,” blind to the vibrant oral histories that Diné people tell to themselves, about themselves. She also addresses the gendered nature of collective remembering, arguing for the central political role that Juanita, Chief Manuelito’s wife played, despite most historians’ relegation of Juanita to the sidelines of the action in tribal-federal negotiations (Denetdale 2007). The great-great-great granddaughter of Juanita, Denetdale’s project is personal as well as political and intellectual; the politics of knowledge she advances works to restore the epistemic authority of Navajo oral traditions and at the same time counter conventional, masculinist narratives of leadership, which, despite the matriarchal social structure, tend to overcast the crucial work of Diné women (Denetdale 2006).

Restoring the epistemic authority of Native oral traditions counters Western/non-Diné epistemologies of history and identity by shifting the ontological and anthropogenic basis of history and anthropology. The relationships elaborated in Diné oral histories are not restricted to human agency or being – as the excerpts at the outset of this chapter indicate – but are contingent upon the work of animals, deities, monsters, plant life, and the elements. Denetdale details these relationships and they way their ontological difference counters dominant anthropological epistemologies:

“these links are articulated through the creation narratives and include the following characteristics: they often reflect interactions between humans and nonhumans, as well as the memories passed down from the ancestors; and the retelling of creation narratives often incorporates new materials, thereby denying earlier anthropological assertions that oral traditions are static and bound by customs. Significantly, many Native people still consider their realities to include the power to speak to the deities and animals … Certainly for the Diné, invoking the creation narratives, the events and the beings who act in them, provides lessons for life, allowing listeners to reflect on how hozhó can be regained. Events that took place during the creation and the journey to the present world still take place.” (Denetdale 2007, 39-40; my emphasis).
The knowledge glimpsed in these living, changing oral histories, with its diverse beings and altered temporalities, responds directly to a certain reading of the history of anthropology (and archaeology) “on” the Navajo. Reinterpreting such understandings of the past has direct bearing on developing a new critical pedagogy of the present, another core element of work among the scholars associated with the NSA.

The site of the Navajo Studies Conferences, Diné College, is itself a physical reclaiming of space for Diné intellectual production and pedagogy, incorporating and yet transforming the university as the dominant model for knowledge production. Founded in 1968 as Navajo Community College, it was the first tribally controlled college in the United States. The architecture and design of the campus is circular and follows a clockwise direction, similar to a Navajo basket, with an entrance on the eastern side to represent the cardinal direction associated with thought or understanding. Accredited as a two-year college in 1976, Diné College follows the teachings of Sa'ah Naaghai Bik'eh Hózhóó (often referred to as “SNBH”) as the institution’s core philosophy. Though rarely transliterated into English terms, SNBH has been described as “the Diné traditional living system, which places human life in harmony with the natural world and the universe and provides principles both for protection from the imperfections of life and for the development of well-being,” or alternately as, “May I be Everlasting and Beautiful Living,” or as, “to walk on the path of beauty and harmony to Old Age, which is the purpose of life.” The concept follows the Diné educational philosophy and

72 I assemble these interpretations to show the range of translations of SNBH into English, and the way the concept escapes any direct transliteration. The first interpretation is by Wilson Aronilth, Jr., traditional practitioner and faculty at Diné College; the second is by Diné author Rex Lee Jim, as quoted in Denetdale (Denetdale 2007, 43), and the third is from Denetdale (2007).
methodology of *Nitsáhákees* (Thinking), *Nahat'á* (Planning), *Iiná* (Living) and *Sihasin* (Assurance), each of which is associated with one of the four cardinal directions, sacred mountains, and colors. [Figure 2]. Teachers in the College’s Center for Diné Education are required to incorporate aspects of SNBH into their courses, integrating the value of this system of knowledge and using its methodology as part of their pedagogy.

![SNBH Diagram](image)

Figure 2: *Sa'ah Naaghai Bik'eh Hözhóó* (SNBH) diagram
Diné College, Tsaile, AZ (2010)

At the 2007 Navajo Studies Conference, the President of Diné College situated SNBH philosophy within broader Diné cosmology, placing it side by side with the emergence of the five-fingered clan and the sacred stalk.  

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73 Public Speech by Ferlin Clark, President of Diné College, Navajo Studies Conference, Tsaile, AZ, November 1, 2007.
higher education by seriously and humorously commenting on the College’s pedagogic difference:

“Education before [Diné College] took away the spirit and the soul. Diné College is to put the hozhó back into education, and to have a sense of identity, of where you come from … There is no other college that has sheep grazing on the sidewalk, all through campus.”

The significance of identity formation – of learning and practicing what it means to be Navajo, through study of Navajo language, oral and written history, and Navajo philosophy – has thus become institutionalized through the College and its programs. Though the College does not speak of its critical pedagogy in terms of “decolonization” (as many indigenous scholars advocate), the focus on contextualized, place-based pedagogy makes the institution unique as a community college model. This recognition of difference (being Diné) paired with critiquing the failures of conventional colleges and universities (“taking away the spirit and the soul”) has generated an institution which, for its many challenges, strives to redefine the space of education, despite its many challenges and inconsistencies. And although the Navajo Studies Conferences are not always held at one of the College’s seven branches across the reservation, the two are kindred projects, creating institutions for alternative methods of knowledge production, countering (with varying degrees of explicitness) the asymmetry of power in how knowledge “about” the Navajo has been produced, historically.

74 Public Speech by Ferlin Clark, President of Diné College, Athapaskan Languages Conference, Tsaile, AZ, June 21, 2007.
C. Diné Policy Institute: Translating Philosophies

Two floors above Alex Mitchell’s office in the Hatathli Museum at Diné College in Tsaile, the Diné Policy Institute (DPI) is a four-room office animated by the staccato of fingers on laptop keyboards and markers on the dry erase board. Bookshelves hold volumes in Marxist theory, indigenous studies, feminist theory, maps of the Navajo Nation, magazines, and the occasional hand-drawn cartoon of U.S. political figures, captioned with some irreverent double entendre. Andrew stands at the dry erase board, furiously outlining in red marker the division of labor in the staff’s current research project, a study of alternative government possibilities for the Navajo Nation Tribal Council. They are using comparative and historical methodologies, analyzing pre-1920’s Navajo self-government as well as contemporary governance structures among other indigenous nations. Moroni leans against the doorframe of his office, eyeing Andrew’s ambitious timeline, while Nikke thumbs through a reader on the Zapatistas and surfs the web for resources on Guatemala and student interns type research notes. Robert Yazzie, DPI Director, talks on the phone behind the closed door to his office, a room lined with large windows overlooking the college campus and the red Lukachukai cliffs in the distance.

My engagement with the DPI staff typified a thematic tension in Diné intellectual movements: critically responding to the history of anthropology (and other sciences) on the Navajo, while at the same time working with the outside anthropologist. I am consulting to the staff on ethnographic methodologies and generally chiming in, when asked, on their research design. Admittedly, I’m also using the DPI office for reliable access to electricity, to check email and manage my research, since the batteries on our solar system at home have become unpredictable, especially on these cloudy winter days.
My relationship with Yazzie is more formal and enigmatic. During one of our earliest encounters, while I was working to establish myself as an “affiliated researcher” with DPI and attempting to interview Yazzie, he gazed at me across his desk, arms folded, and probed, “What are your ethics?” Stunned by what sounded like a trick question laden with the legacy of anthropologists past and the skepticism of the juridical mind, I was grateful to the DPI staff for having prepared me for this cross examination and for Yazzie’s particular concerns with intellectual property. I realized that as “the anthropologist,” I was meeting the legacy of anthropology through the interview act which I no longer controlled; Yazzie’s ability to reverse the direction of the interview suggested the ambiguities and politics of contemporary collaborations in knowledge production, unsettling my certainties about collaborative engagements – a theme explored further in this dissertation’s Epilogue. My “ethics” deemed at least provisionally palatable, I was invited to read and comment on drafts of reports, to participate in DPI conferences, and to collaborate with one of the research associates on conducting focus groups with leaders of local environmental non-governmental organizations. The three research associates quickly become my colleagues, sharing their resources, educating me on tribal policy research, and engaging me in conversations on energy and economic development, environmental protection, government reform, and implementing the Fundamental Laws of the Diné, central areas of their policy-related research.

The Diné Policy Institute was established in 2005 with joint funding from the Administration for Native Americans and the Navajo Nation Tribal Council. The Speaker of the Council, Lawrence T. Morgan, was particularly supportive of establishing the Institute, envisioning it as a place to “mesh” Western knowledge with Diné fundamental
knowledge. However, what it meant to “mesh” these knowledges, in fact, how the very difference of these knowledges is defined, became part of the ongoing internal tension of DPI’s intellectual work. The epistemic project of DPI is “how to build a policy analysis and methodology based on Navajo frameworks and values” and yet, these frameworks and values are not always as obvious or diagrammatic as the models might suggest. After leaving his job as a full-time research associate with DPI, Moroni reflected:

“We saw epistemic friction happening and we wanted to figure out what’s going on there and how do we address that. Both Robert [Yazzie] and I had a different understanding of what it meant to ‘mesh’ knowledges than what the Speaker [Lawrence Morgan] thought. Robert and I took this very critical position and did our best to interrogate a number of these prevailing institutions and methods that the Navajo had been using. The perception of the Speaker and others in the Council was more of, we like these existing methods, the way things are going, we just want things improved. And the improvement will in some way ascribe to Navajo values because they improve the process for us. Early on, we received this assignment from the Speaker and I was troubled with this and said I didn’t want the Speaker to control our agenda of what we can and cannot do. So we made it clear we wanted intellectual autonomy. I remember very clearly what he said: We are interested in the truth, no matter what it is, and the truth is the truth and you will help us see what it is, even if we don’t like it.”

Institutionalizing this pursuit for “truth,” DPI’s knowledge production work countered longstanding disciplinary interpretations of what types of knowledge and what audiences “mattered” in Navajo society. DPI speaks to Diné academic, legal, policymaking, and community audiences – groups that are often at odds with one another, despite shared political goals. DPI’s mission states:

“Through the principles and values of Sa’ah Naaghai Bik’eh Hozhoon, Diné Policy Institute will become the premiere quality research organization for facilitating, analyzing issues, and educating Bila’ashdlaii [five-fingered

75 Personal communication with Moroni Benally, May 14, 2010.
people/humans], in a way that ensures that beeheezaa!ni [rule, law] are developed to protect the sovereignty and cultural integrity of the Diné.\textsuperscript{76}

With this mandate, research has a normative, political aim: to protect sovereignty. Yet, as mentioned, DPI faces a fundamental “epistemic friction” in its knowledge work. It is both bound to, and critical of, the Tribal Council – specifically on matters of the environment and sustainability, the Fundamental Laws of the Diné, and governance structure. DPI researchers negotiate this institutional constraint on their “intellectual autonomy” carefully, drawing upon the support of a network of Diné intellectuals who serve as Advisory Board members and consultants.

In this way, DPI is countering “outside” knowledge regimes and histories in the sense that “Western” modes of thinking (“outside” and “Western” as identified by Diné intellectuals themselves) have, as they argue, fundamentally constrained the tribal government’s ability to think beyond status quo policy measures toward innovative, Diné-centered theories of governance and law. At the same time, DPI is drawing upon “Western” methodologies to approach Diné philosophy and epistemology. Like the Navajo Studies Association, the DPI staff and board are engaged in a complex re-articulation of Diné identity and history through these hybrid knowledge-practices, in which oral histories and the Fundamental Laws of the Diné are at the center of the analysis, informed yet not fully shaped by Western social theories and epistemologies. Their project is delicate and complex in another way, as well. On the one hand, they are advancing a Diné-centered analysis of governance and policy and the ability of the government to translate customary ethical principles into policy; yet on the other hand,

\textsuperscript{76} Mission statement of Diné Policy Institute, online at http://www.dinecollege.edu/institutes/DPI/policy.php, last accessed on May 11, 2010.
the very systems of governance and policy within which they are working were established by federal-tribal relations in the 1920’s, set in motion by the discovery of mineral resources on the reservation – now one of the key arenas of economic and environmental critique taken up by DPI. The complex circularity of these frictions is on the forefront of the researchers’ minds. They rarely fail to mention the irony of their project, employing traditional Diné law – itself largely untranslatable into English or into modern epistemologies of governance, though it has recently been codified as law – to reform a tribal government that largely mimics a federal model, itself the historical outcome of revolutionary reform.

Among DPI’s public products are its white papers and annual conferences. The most significant white paper in recent production has been DPI’s Navajo Nation Government Reform Project, a detailed history of self-governance by the Diné, describing 20th century changes in governance and proposing four contemporary possibilities for restructuring the existing 108-member Tribal Council. Notably, the Tribal Council (through the Office of the Speaker) mandated this report, despite the fact that it could mean the dissolution of the current council members’ positions. When the Report was presented to the Tribal Council in October 2008, a committee of council members was established to review the findings, but the Report never gained full review due to it being “immediately politicized.” Because the Report evaluated the Executive Branch of the Council as “weak” and in need of the most reform, many in that branch

77 Apart from papers and conferences, DPI has also produced a cadre of young intellectuals who are now enrolled in various social science doctoral programs from New York to Washington, leading grassroots organizations on the reservation, and working with the tribal leadership on policy initiatives such as the Navajo Green Jobs campaign. Such cultivation of young critical scholars and activists was perhaps an unintended outcome of DPI’s mission, and yet it ensures a new generation of Diné intellectuals.
interpreted this critique as an attack on Navajo Nation President Joe Shirley, Jr., distancing themselves from the Report’s findings or any investment in its full review.78 The politics of knowledge in this case demonstrates that the “truth” called for by the Speaker affected the unanticipated outcome of further dividing the Tribal Council on the crucial question of government reform.79

In recent years, DPI has also produced papers on energy development, economic development, the Navajo Local Governance Act and government de-centralization, on the meanings of k’e (relationality), and on intellectual property, among other issues. In addition to producing these texts, DPI research associates organize meetings of the Advisory Circle and produce general conferences, held at Diné College, concerning issues such as sustainability, intellectual property, economic development, and land use. With these gatherings, DPI functions as a network of inter- and trans-disciplinary intellectuals who can be brought together and called upon to think through particular intellectual and political problems that the Navajo Nation is facing. At any of these gatherings, Diné botanists, philosophers, legal scholars, medicine men, Navajo language researchers, educators, anthropologists, and community elders gather to discuss and debate translations, equivalencies, disjuncture, and interdependencies between Diné and Western values, methodologies, and theoretical frameworks.

78 Personal communication with Moroni Benally, May 14, 2010.

79 The conjuncture of this Report with Navajo Nation President Joe Shirley’s proposal to reduce the 88-member Tribal Council by more than half (down to 24 delegates) cannot be underestimated. The Speaker and the President became opposing forces in the Council regarding this issue, the President calling for Council reform via council member downsizing, while the Speaker called for other types of structural reform. That DPI became overly associated with the Speaker’s agenda damaged DPI’s credibility as “unbiased” researchers, further diminishing the Government Reform’s impact.
A need to evaluate the multiple and elusive nature of “sustainability” inspired DPI’s largest, public conference in 2007. Given the prominence of energy development decisions, environmental issues and economic disparities facing the Nation, understanding sustainability became increasingly urgent at the level of theory and its application as policy. To that end, in August 2007 DPI convened the “Navajo Sustainability Conference,” drawing academics, non-governmental leaders, tribal policymakers, students, traditional practitioners, and community elders to the Tsaile campus of Diné College for two days of discussion on the meaning, translatability, and practical implementations of sustainability. In his keynote address to open the meeting, former Navajo Nation President and public intellectual Peter MacDonald linked sustainability to sovereignty and spirituality, cementing a triad that would resonate throughout the conference.

“Sustainability involves the future – our future. The federal government and BIA have been controlling our lives since the 1800’s. We have been conditioned to be dependent. Control means dependence, and this is the opposite of sustainability. The federal government will, one day, perhaps in my lifetime, terminate Indians. When that happens – what’s your sustainability? Are we prepared? If so, how?”

An eloquent speaker and revered public figure – despite his scandalous political history – MacDonald commanded the audience’s attention. Easing seamlessly into discussing development as the corollary of sustainability, he continued:

“This is more than environmental matters. This is also our way of life, values,

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and traditions. There must be a full-cost accounting for each proposed alternative: environmental, economic, and social impacts. And ‘cost’ is much more than the initial outlay of money. There are always hidden costs – all kinds of costs … It’s a question of value. Value of a thing to a person is also part of the opportunity costs and assessing opportunity costs is fundamental to assessing the true costs of any action.”

Moving from federal termination and sovereignty to rethinking costs and values, MacDonald was priming listeners for his next oratorical move: defining sustainability through a commingled discourse of spirituality and energy production, and using this to rethink “value” – an interesting twist from this politician and founder of the Council of Energy Resource Tribes (CERT), a national network of tribal leaders from mineral-rich reservations.

“The Navajo concept of the universe, plants and animals, is that at no time are we to endanger their existence or way of life. We call this ‘harmony’ [speaks in Diné] … Everything is alive and is part of us and we don’t want to disturb their right to live a life. Sustainability is challenging how we use natural resources, especially energy and water resources. We revere and need all these plants – we know why we need trees that have been struck by lightening. [speaks in Diné]. Land that has been undisturbed for ceremonial purposes – it has value for us. Water is a giver of life. Four-legged animals and those that fly. The universe is an order, a sacred order of balance between us and the ecosystem. This is why we never went off half-cocked, destroying our resources. People from the outside, they say they want to share things, but do they just want to fleece us from all that we have? We know that the U.S. government, our trustee, is not looking after our interest but is looking out for others, outside, and their benefit. Instead of blindly responding positively to outsiders, with their proposals and their nicely colored brochures, we should start thinking now of how we’re going to survive what others are doing to us. It’s time to get smart and start thinking of our own sustainability” (my emphasis).82

81 Ibid.
82 Ibid.
This insistent referral to “people from the outside” or “outsiders,” combined with the interestingly sheep-centered verb choice of “fleece” suggests his sense that non-Navajos are (still) trying to pull the wool over the eyes of Navajos, so to speak. More directly, it was a thinly veiled reference (easily recognizable by anyone in the audience following the recent politics of energy and economic development) to the most volatile development proposal facing the Navajo Nation in that year: the Desert Rock Energy Project. As proposed – by the non-Navajo (“outside”) corporation Sithe Global – this power plant’s proposed use of water and coal resources had already become highly controversial among tribal leaders and activists alike, not only for environmental reasons, but for the challenges it posed concerning tribal sovereignty, public debates on science and knowledge, and competing visions of dystopia and utopias for the Nation. MacDonald’s reference evoked this development dilemma – the need for an economic plan for the future should Native Nations be cut off from federal support, coupled with the need for respect of customary values, spiritual and non-human relationships – posing “sustainability” as an open-ended, political question, rather than a methodology or prefigured set of practices.

Throughout the rest of the conference, MacDonald’s remarks on sustainability as understood through sovereignty and spirituality instigated debate among other presenters, moving forward the collective, critical assessment of “sustainability” in theory and practice for the Navajo Nation. In an afternoon session on k’é, botanist Donna House dialogued with philosopher Herbert Benally on how relations and relationality (k’é, roughly defined) were part of a Diné understanding of sustainability. Categories of k’é, according to Benally, have spiritual value, and include the home and family, the Holy
People (which includes the earth itself and some of the plants), and finally, animals and the other plants. Respect for these human and non-human lives and deities is paramount in maintaining k’e. Recognizing Benally as her “mentor,” House approached k’e through a discussion on compromised sovereignty, referencing the history of oil discovery on tribal land as the impetus for the federal government establishing the Navajo Nation in the 1920’s, a government designed “specifically for the development of natural resources.” Following DPI’s over-arching mission, House then took the problem of tribal government as part of the k’e/relations she (and others at the conference) are bound to address, reform, and transform, rather than flatly reject, outright. Recognizing the geo-spatial and knowledge politics shaping the epistemology of Navajo, she countered historical productions of knowledge by “outside” interests with an affirmation of the emergent, new direction in intellectual work:

“The reservation boundary is a porous membrane. Things move in and out. People come here to Navajo to understand k’e. There have been so many books written on the Navajo … I can’t keep up. We need more dialogue among Navajo people here, and this is an exciting moment for this dialogue – of DPI with the Tribal Council. We’re asking questions about our energy, housing, and so forth.”

Moments like these crystallize the burgeoning movement among Navajo intellectuals, who are producing counter-knowledges of Diné history and identity in the wake of more than one hundred years of knowledge produced about the Navajo, by non-—

83 Herbert Benally, Panel at the DPI Sustainability Conference, Tsaile, AZ, August 22, 2007.


Navajo. House’s interpretation of outside interests as being focused on “understanding k’e” places an implicit value on k’e held by non-Diné researchers (such as the early non-Diné anthropologists and Southwest archaeologists) and situates k’e as the impetus for the production of the plethora of books on the Navajo. Most significant, however, is the shift in the agency and politics of knowledge that she notes – now the questions, theories, and products are coming from Diné scholars themselves, who search for invigorated understandings of concepts like k’e and sustainability in order to have better knowledge of these areas of inquiry and to implement specific strategies for improving governance and everyday life (e.g., “energy, housing, and so forth”).

**Conclusion**

Importantly, however, there is not consensus among these intellectual positions; agency in no way implies uniformity or homogeneity of politics or opinion. The internal diversity on the Navajo Nation, the varying responses to the extractive legacies of anthropology and energy – and the remaking of these legacies through Navajo leadership – remains an open terrain of knowledge production and identity negotiation. This ongoing debate over knowledge production is often worked out through specific concepts (like sustainability), events (like planting a field or mending a fence), and objects (like a proposed power plant), such that epistemological innovation is embedded in ongoing projects and networks of relation. Given the complex politics of energy that has defined the Navajo Nation’s place in its transnational relations with other Southwestern Native Nations, regional cities, the federal government, national NGO’s, and international, pan-
indigenous affiliations, we have to understand how the extractions and conversions of power continue to shape Diné experience and politics today.
Interlude 1: Off-Grid in the Chuskas

Adella and I spent the morning sweeping snow off our solar panels. The grey winter skies hang low, even at our 7,800 feet elevation here in Wheatfields, promising more snow on top of the four feet already blanketing the ground. Living off-grid, relying on solar power, makes us utterly dependent and thus acutely aware of weather patterns and their impact on available sun hours in a given day. Our batteries are running low, the red warning light on the meter box mounted in Adella’s bedroom blinking ominously, making us rearrange our energy allotments for the day. We have enough to keep the small refrigerator running, but it’s doubtful we’ll get to watch television tonight, missing yet another episode of Law & Order, our favorite show. We skip the coffeemaker, instead using the French press, since it requires no electricity, and we keep all of the household lights turned off – though with the east and south facing windows in the large hogan, we rarely need overhead lights at all. Fortunately, my laptop demands very little energy, so we can check email and online weather predictions through the satellite internet system we installed when I moved in.

Just last week technicians from the Navajo Tribal Utility Authority (NTUA) came out to check the ground-mounted solar panel array, which Adella had installed on the house several years ago. This array is a typical NTUA system: a 640-watt Kyocera model KC 80, wired in series (as opposed to in parallel), with the capacity to generate 500 amp-hours of electricity. The NTUA technicians found the house, despite our inability to
contact them with directions, as there are no telephone lines or cell phone signals in this area, no road signs and no postal service. To direct someone, we usually rely upon their knowledge of this particular landscape, orienting them by Wheatfields Lake, a cattle grate, a shelter for the Nidáá ceremony, and the flat-topped, pine-covered buttes to the east, wholly depending upon their abilities to think and maneuver in cardinal directions. Concerned about scratches he noticed on some of the cells, the lead technician convinced us to put up a fence around the array, preventing the sheep and goats from scrambling and playing on the slick surface, their hooves slicing the silicon, compromising the panels’ efficiency. This morning, we reached over the wire fence with the household broom, clearing the panels of three inches of snowdrift. Thankfully, we could do this together, before Adella left this home to drive to her apartment in town, where she would put in a load of laundry and take a shower before going into work at the hospital. These two homes – the off-grid, solar powered summer camp in the Chuska woods and her intown, grid- and water-connected Indian Health Service subsidized duplex near Chinle – enable two experiences of residential life in the Canyon de Chelly area. And although these homes at first appear contradictory, the former being an alternative to the latter, they are in fact complementary. Having amenities and appliances at her place in town makes it possible for the energy independence at the summer camp home to feel not only bearable, but necessary – a silent retreat for thinking, listening, and making a home with her labor, hauling water, chopping wood, and hiking the two miles from the highway to the house when the rutted dirt road became impassable, as it does twice a year, during the winter snow and the August rains.
Adella invited me to live here with her by way of her association with Diné CARE and with anthropologists past. I accepted, eager to learn how to live in the woods, off-grid. Studying energy ethnographically required, I surmised, experiencing a home where water and electrical power are never taken for granted. Yet, while many Navajo families live without power or water despite their desire for these amenities, Adella created this lifestyle for herself. And often these technological differences are mapped onto the same terrain, as with Adella’s homestead, where her sister Angie lives with her husband Jay in a one-room, dirt-floor more “traditional” hogan just 200 yards from Adella’s two-story, stone-floored, solar-powered home. Angie and Jay keep nearly one hundred sheep and goats and several cows, herding them daily through the forest, thick with pine and sage, with the help of seven sheep dogs and one running Ford pick up truck.

This was their mother’s home site and grazing land, so following the matrilineal management of grazing and home site lands, it now is divided among the sisters. Adella’s other sister Janet lives now with her family in the sisters’ original childhood home, where she pastures her horses near the lake and is able to remain year-round because of her proximity to the highway maintained by the tribal agencies in the winter. Annette, another sister, spends only her summers higher up the mesa behind Adella’s house, tending a smaller flock of sheep, driving very early every morning down the logging roads that cut through the forest Adella fought to protect, out to the two-lane highway and into town to work. The other sisters and brothers live elsewhere, but not far. Historically, the seasonal moving between a summer camp and a winter camp enabled livestock to survive without hauling in supplemental feed and water. Today, some families, like
Angie and Jay, still practice seasonal relocation (or partial relocation) for these primarily pastoral reasons; while others, like Adella and Annette, do so because it is meaningful for them to continue this pattern and, in winter months like these, a relief to move back to town and escape the persistent cold and enveloping snows of the Chuskas.

Last summer, after the last June snow but some time before the piñons were ripe, we sat outside at the picnic table beneath the cooking shelter next to Angie’s hogan, the sheep’s head roasting slowly in the red coals, its cooked ribs, legs and innards rapidly disappearing from the large platter as we ate, leaving behind shiny streaks of grease on the paper plates. Jay admits he can’t do the butchering himself; he feels too close to the sheep since he spends nearly all of his waking hours walking the woods with them. So Angie’s ex-husband Roy comes to do the deed, which he executes swiftly and methodically, the animal’s warm carcass laid out neatly in a red wheelbarrow, its head on a blanket of hay to absorb the blood. He then used twine to hang the pink, glistening meat from the ceiling of branches that make up the shelter’s roof, each raw cut out of reach from the sheepdogs prowling below. It takes Ron’s knife and Angie’s woodstove less than an hour to transform the sheep into a meal to serve six or seven adults; the warm, gamey smell of roasting mutton mixed with sage and pine calls us from our house down to Angie’s arbor to eat. We are just back from the local Tsaile spring where we refilled the 100-gallon plastic cistern mounted in the bed of Adella’s diesel pick-up truck.

Hauling water is a one-hour round trip job we do together on Sunday mornings early, before there is a line of people in trucks waiting their turn, many having driven more than two hours to these mountains to get what is widely considered to be the purest water around.
I bite into a crispy and greasy piece of *ach’ii* (intestine), salted and wrapped in a warm, handmade tortilla that Angie has just taken off the hot coals. Angie turns the coals with her poker, spreading them over the simmering head to singe off all of the hair. She has two woodstoves – one inside the hogan for heating and winter cooking, and one outside under the cooking shelter for summertime cooking. Also sitting on the ground outside beneath the wooden shelter is a conventional oven with four burner tops, though its use is as large cabinet for storing dishes and other items out of reach from the dogs, goats and sheep. Angie feeds kindling to the fire, pulling from a nearby woodpile, itself a smaller mound of wood split from the larger logs arranged neatly, leaning inward against one another in the conical formation most families use for keeping wood stacked and dry.

Yet there is an element of dissatisfaction with the limits of wood, as well. Just yesterday, Angie confessed she’s become tired of always cooking and heating with wood, wondering aloud if the local Chapter might ever extend power lines up to her hogan. Angie, like Adella, lived for a time in one of the reservation’s many Navajo Housing Authority (NHA) developments, a tight cluster of uniformly designed, concrete block, single-family homes built with federal funds, offering dependable electricity and water, paved roads, and street lights. She left the NHA neighborhood and its relative suburban comforts for the same reason many people do; she wanted more space, and found it unsettling and bothersome to have neighbors so nearby. For years, she’s been asking the local chapter officials to have the tribal utility extend electrical lines out to her hogan. But living two miles from the highway, and there being no other homes out here except Adella’s, it’s not cost-effective to run the lines at nearly $30,000 per mile of distribution. She is not interested in solar panels like her sister has. Too unpredictable and too reliant
on expert technicians for repairs, she says. Angie would prefer the security and relative independence of being grid-tied, able to run a single light and a few small appliances in her hogan, and perhaps a wire out to the horse trailer “studio” where her loom is set up for weaving.

However, power lines not only distribute electricity but deliver economic expense as well, creating a new constraint for families unaccustomed to paying monthly utility bills, raising the question of “independence” – despite reliability – of grid-tied power. The independence she gained by moving back to the summer camp land in the Chuskas meant becoming more dependent on the vagaries of the weather, the roads, the animals, the firewood, the price of gasoline, and other family members to help sustain life in the woods. Fuel is integral to this relative in/dependence as well. Nearly every weekend, Angie makes the two-hour drive to Gallup to do laundry, shop for groceries, and take care of other errands only possible in the reservation’s border towns; weekdays, she often drives forty-five minutes to the winter camp where her daughter’s lives, twenty minutes to the mountain spring to collect water, or twenty-five minutes to church, the post office, or to the gas station itself.

The energy interdependencies of these off-grid homes, like many on the Navajo Nation, and the desires, practices, and politics they sustain, are complex, existing in broader networks of permanence, maintenance, and desire. For instance, not too far from Adella’s home, the reality television show “Extreme Makeover: Home Edition” adopted Garrett Yazzie’s family in the reservation town of Piñon, Arizona, replacing their two-bedroom single-wide trailer with a six-bedroom architectural trophy, complete with gray water irrigation landscaping and a hybrid solar-wind power system. Not long after the
media blitz surrounding its unveiling, envies ensued with neighbors, disputes erupted with the NTUA over responsibility for the household’s electricity bills, and the family entered into negotiations with the show’s producers over the roughshod design and inner-wall insulation collapse. These frictions demonstrated that no technology – or family – is fully independent, even in the most remote locations.

The stumps of ponderosa pine trees in the Chuskas are reminders of this contradiction: flanking the logging roads leading into Angie and Adella’s hogans, a façade of intact trees barely hides the stump fields left behind by the Navajo Forest Product Industry loggers during the Nation’s heavy timber harvesting. These are the very woods that Adella and her late husband Leroy worked to protect from clear-cutting, even as Angie and Jay were working for the sawmill as loggers. Angie says it was “just a job” and she always supported Adella and Leroy’s work to stop the logging. In effect, the trees mediated the two sisters’ respective vocations as activist and logger; their work diametrically opposed, but with shared memories, investments, and futures in the forests and seasons they had grown up in, together.
Chapter II: Histories and Politics of Energy

Energy, in the form of mineral resources, is at the very heart of the Navajo Nation’s existence. This chapter traces how the politics of energy has its own historical trajectories and diverse actors; that is, how energy as it is extracted, converted, and circulated in recent decades, through and beyond Navajo territory, has become a defining issue not only for the tribal government, but for a multitude of political actors. Building on Chapter I, this chapter continues trace a genealogy of energy development on the Navajo Nation, situating ensuing regimes of resource extraction for exportation in broader landscapes of power. On the Navajo Nation, energy is political; in fact, the inverse is also true: politics is often produced through energy technologies. The political, however, must also be re-thought as a realm of imaginative work, multiple conversions of materials and subjects, hitched to extractive legacies that, in turn, produce new engagements with knowledge and identity, as discussed in the previous chapter. With this expanded notion of the political in mind, this chapter argues that energy development, rather than being an apolitical process of strictly economic development of natural resources, has instead become an ongoing process of networked negotiations, producing distinct histories, knowledges, and subjects of the region as well as competing visions of the future. These negotiations are “networked” in the sense that the Navajo Nation – or, more accurately, the many diverse players that constitute “the Navajo Nation” – are intimately intertwined, historically, culturally, and politically, with other indigenous
groups in the Southwest, across the U.S., and beyond; with institutions and political bodies that govern and act trans-tribally and trans-locally (such as the United Nations and the U.S. Department of the Interior); and with one another, through clanship, kinship, professional, and ethical affiliations. Such is the terrain of the politics of energy produced on, and through, the Navajo Nation’s human and non-human resources.

It is important to understand the politics of energy historically and through the formation of subjects. Following the two core valences of power addressed in this dissertation (the mineral-material and the human-figurative), this chapter presents the politics of energy as a story of energy histories, on the one hand, and emerging energy subjects, on the other. In the first instance, subterranean fossil fuel extraction has shaped the ecology and economy of the Navajo Nation, but now faces a critical conjuncture with the increased concern over the effects of radiation exposure and carbon dioxide, desecration of waterways and sacred sites, and the burgeoning movement for alternative energy technologies. Building upon the establishment of the Navajo Nation as a federally recognized political entity in 1923 as a means of enabling oil extraction (as discussed in the previous chapter) the first section of this chapter proceeds with a discussion of the Cold War rush for uranium and its effects on Navajo territory, before turning to consider the rise of the present reliance on coal. Both fuel sources – uranium and coal – offer causes for thinking about the lives, livelihoods, and landscapes that are continually being transformed by extractive industry and its infrastructures.

As others demonstrate in their histories of energy development on the Navajo Nation, the development of the urban “Sunbelt” cities in the American Southwest depended upon the extraction of energy resources from rural, largely indigenous
territories. Moreover, the environmental and economic transformations of tribal communities were not only constitutive of the growth of cities like Phoenix, Los Angeles, and Las Vegas, but were projects of a federal effort to “modernize” and make new subjects of American Indians through industry, infrastructure, and distribution of technologies such as the U.S. electrical grid (Glaser 2009). Through rural electrification programs, the capillary extension of power lines delivered electricity and new machines, new ways of working, longer workdays with increased productivity, and – in essence – entanglements with a different economies and technologies, transforming the everyday life of many Navajo families. As Leah Glaser notes, electrical infrastructure had a hand in making new livelihoods among Navajos, restricting mobility, promoting farming, and introducing gendered practices through new domestic technologies that transformed households (Glaser 2009). Of course, these developments were – like all techno-scientific changes – uneven and incomplete, with much of the reservation deemed too rural for the distribution of power to homes, leaving the massive transmission lines to tower overhead, exporting power off the reservation. Thus, with the subterranean geology of Navajo territory opened up to oil development in the 1920’s and the surface ecology transformed by livestock reduction in the mid-1930’s, the conditions were ripe for new projects aimed at developing Navajo landscapes and people. What in the 19th century was viewed as barren, frontier land became desirable to a rapidly industrializing and militarizing national economy, when since the 1920’s, vast deposits of oil, natural gas, uranium, and coal were known – by federal officials, at least – to lie within the rural, high desert plateau.
Post-World War II geopolitics and the work of U.S. President Harry Truman divided the globe into First, Second, and Third Worlds, introducing regimes of knowledge and power into such tiered spatialities (Escobar 1995). This logic of difference extended to internally colonized, settler state spaces as well, with critical scholars – and many activists – categorizing Native communities in the United States as “Third Worlds” contained within a First World, global power (Hosmer and O'Neill 2004). As Native Nations pursued a new range of economic development projects, from casinos to mining, challenging colonial imaginaries of the inherently, perpetually “impoverished Indian,” some Nations began to look at mineral resources as possible solutions for reversing this colonial imbalance of power. Moreover, as Colleen O’Neill shows in her history of mid-century transformations in Navajo labor, the post-War incursion of market capitalism onto the Navajo Nation was a complex and dynamic process of negotiation among Navajo miners and weavers as well as wage laborers working off the reservation, never equaling the simple “destruction” of Navajo cultural practices as widely assumed (O'Neill and Studies 2005).

Influenced by decolonization movements in Africa and the Caribbean as well as the changing political climate in the U.S., tribal leaders began to pursue new economic and political methods to ensure tribal sovereignty and economic security (Hosmer and O’Neill 2004). In the 1950’s, Navajo Chairmen Sam Ahkeah (1947-1954) and Paul Jones (1954-1962) argued for self-determination through natural resource development, incorporating New Deal ideology largely developed by non-Navajo attorneys and officials working with the Navajo Nation (Needham 2006, 137). From the Second World War onward, Navajo resources emerged as desirable and necessary to fuel the United
States’ burgeoning global power. Able to provide these raw materials for regional, national, and international growth and enabled through federally funded infrastructures (such as nuclear weapons research labs and the national electrical grid) the material pathway to Navajo self-determination began underground. The first section of this chapter traces these transformations, quite literally “from the ground up.”

The second section of this chapter turns to consider several responses to these material power legacies, highlighting a set of late 20th century and early 21st century mobilizations of power to counter what many in the region have deemed the “neo-colonial” relationship of energy development on the Navajo (and other Native) territories. Responses to the Navajo Nation’s energy history are varied, producing diverse spokespeople who engaged different networks of action to advance their vision of a particular energy future. This genealogy of energy development on the Navajo Nation has spawned diverse responses among tribal members and leaders, each exemplifying a mode of activism, yet often with divergent politics and even contradictory visions of the future of energy. Broadening our notions of “activism” and “the political,” new agents of energy politics come into view, bringing sometimes competing and sometimes converging visions of the future holds for the Navajo Nation. Tracing events and encounters demonstrates the history of these landscapes of power as they have been produced in practice; social and environmental movements formed in response to the political economy of energy dilemmas, generating an emerging politics of energy still being worked out today, through emerging technologies. Organized energy activism is another valence by which power – in its material and metaphoric senses – is leveraged by Diné people and their allies as a response and counter-epistemology to the profit-oriented
interests of once-national, now transnational energy corporations who seek to do business on tribal territory. Understanding some of the historical trajectories of energy activism on the Navajo Nation is crucial for seeing the human-built landscapes of power of the Navajo Nation. Again, broadening our conceptions of “activism” is essential for seeing the diverse players involved in working out the future of the Navajo Nation, through energy technologies. And, recognizing non-traditional or unexpected sources of activism expands the landscape of power in question, connecting Diné actors with trans-local Native and non-Native energy subjects.

To that end, I present what I see as six models of energy activism, illuminating the diverse and often inter-penetrating histories and subject positions informing the politics of energy on the Navajo Nation today. This discussion of energy activism is not meant to be conclusive or comprehensive, but rather to offer a collage of six trajectories of often-intersecting energy activism as part of the background for understanding the emerging controversy over the proposed Desert Rock Energy Project (“Desert Rock”), taken up in the next chapter. It is also meant to complicate and expand our understanding of what constitutes energy “activism,” in at least two ways: (1) showing how actors oftentimes understood as adversaries (e.g., tribal officials versus grassroots leaders) in fact frequently share a common political vision and shift positions as the terrain of activism itself shifts; and (2) showing how the private sector has become a verdant realm of energy politics through what I call energy entrepreneurism, being defined today by Navajo and other Native business leaders. Three profiles demonstrate these emerging subject positions and their attending politics of energy. Finally, the geographic particularity of these events is relevant, as well; the thirty-plus year history traced in the
second half of this chapter begins and concludes in a particular place: Burnham, or Ram Springs, New Mexico, the proposed location for Desert Rock.

I. Sickness and Power: A Genealogy of Energy and its Effects
   A. Radon Daughters and Prodigal Sons: Nuclear Science and the Uranium Boom

   Through painful hindsight, scholars and Navajo politicians call the legacy of uranium mining on Navajo land both “tragic” (Timothy Benally, Doug Brugge, and Yazzie-Lewis 2006, Eichstaedt 1994) and “genocidal” (Shirley, Jr. 2006). Such critical assessments are largely based on the health risks and consequences of exposure to uranium through airborne dust or contaminated water. Naturally occurring uranium is over 99% uranium-238, the most prevalent isotope in uranium ore, is radioactive, and has a half-life of 468 billion years. Most of the uranium mined in the U.S. has come from the Colorado Plateau, where the Navajo Nation is located. Uranium’s radioactivity has affected Navajo miners, working on the reservation’s open-pit mines, with unprecedented rates of stomach cancer, tuberculosis and other respiratory diseases, and especially lung cancer. In the 1950’s, before the uranium boom in the Southwest, cancer rates among Navajo people were so low that medical researchers published on a possible “cancer immunity” in the Navajo population. By the 1980’s, however, cancer rates skyrocketed, especially among Navajo men working as miners and Navajo teenagers who had grown up living close to abandoned mines and other radioactive sites, historicizing the formerly-assumed “immunity.”

86 Diné families living in proximity to mining operations suffered

86 A study in the New England Journal of Medicine on the correlation between lung cancer among Navajo men and exposure to radiation by working in uranium mines concludes, “in a rural nonsmoking population most of the lung cancer may be attributable to one hazardous occupation” (Samet et al. 1984). Framing
various forms of cancer (including increases in ovarian and breast cancer among Navajo women), birth defects, and the mysterious condition known as “Navajo neuropathy” from unknowingly using radioactive stones to build their hogans, or drinking from contaminated water sources connected to un-reclaimed mining sites (Frosch 2009; Pasternak 2010). Water contamination cannot be reversed and thus continues to threaten and affect families and livestock, with much work remaining to be done to identify all of the toxic sources. These “radioactive legacies” of the Cold War have reshaped the bodies and political ecologies of Navajo and other Native and non-Native communities across the Southwest (Johnston 2007).

These are, of course, retrospective critical assessments of what, for a brief time, was a promising boom for the Navajo and neighboring New Mexico Pueblo Native Nations whose reservation lands happened, by twists of colonial history, to contain the mineral-rich ores of the Grants Uranium Belt. Stretching from Grants, New Mexico north and west toward and past Church Rock (on the Navajo Nation) into northwestern New Mexico and adjacent parts of Arizona, the Grants Uranium Belt combines with reserves in Utah and Colorado to provide one-third to one-half of the known uranium reserves in the U.S. (Williamson 1983). The Navajo settlements of Church Rock and Crownpoint (both in New Mexico) have seen the most intensive uranium mining. Of all western uranium mines, 92% were on the Colorado Plateau, the home of the Navajo Nation (Dawson and Madsen 2007). Uranium-vanadium (U.O.) deposits were not mined on the reservation until 1942, when the Vanadium Corporation of America led the way in uranium mining and the companies’ nondisclosure of risks as “corporate crimes,” criminal justice scholar Dr. Linda Robyn discusses how Navajo death rates from cancer doubled from the 1970’s to the 1990’s, while the national U.S. averages for similar cancers declined during the same period (Robyn 2010).
establishing mines in the red cliffs of the Lukachukai Mountains and in Monument Valley to the west.

Still reeling from the devastation of the 1930’s livestock reduction, the Navajo Nation was economically vulnerable, welcoming mining corporations’ proposals and making “hasty deals” in moments of duress (Ruffing 1980). Mining companies accessed tribal land by contractual leases with the Navajo Nation government, often laying out royalty terms far below the market value of uranium, laying the troubled groundwork for contested royalties and lease agreements in future decades. However, many families were grateful for the relatively high-paying jobs these mines offered and today, remember this new livelihood with a mixture of gratitude and regret. During the height of production from 1948-1968, Arizona’s Navajo lands alone produced over 14 million pounds of U.3O8 as part of the U.S. war effort, from World War II and continuing through Cold War nuclear militarization. By law, the U.S. was the sole purchaser of the uranium, though private companies were allowed to operate the mines (Benally, Brugge, and Yazzie-Lewis 2006, 27). The co-emergence of these landscapes of power is worth recalling here, in the sense of burgeoning military power and atomic power: this spike in the reservation’s uranium production followed the first detonation of an atomic bomb in 1945 in Alamogordo, NM, just a few hundred miles away. Yet the wartime production was still a small percentage of the total Navajo reserves of U.3O8 which were estimated at around 100 million pounds in the mid-1970’s (Benally, Brugge, and Yazzie-Lewis 2006, 8).

It is also notable that during World War II, Navajos enlisted in the U.S. military at a rate far higher than the American population (Brugge et al 2006: 2). The elite cadre of Navajo “Code Talkers” whose code based on the Diné language was never deciphered by the Japanese, became, once the war ended, among the most revered elders in Navajo society. The complex imbrications of Navajo people into the U.S. military is addressed elsewhere. See Denetdale 2007 for a critical discussion of the articulation of militarism, Diné identity, and gender.

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1974, uranium production on Navajo and Laguna Pueblo lands was estimated at ~20% of the total U.S. production for that year, fueling the commercial nuclear power industry.

Walking the steep, red hills above the chapter house with Harry Walters, Diné anthropologist, historian, and resident of the local community of Cove, Utah, I see how “yellowcake” sits scattered across abandoned mines and tailings piles, glittering golden in the late afternoon sun. Cove, a town of 450 residents, is where uranium was first discovered on Navajo land. Known as leetso’ (“yellow brown” or “yellow dirt”) in Navajo, uranium has a place in Diné oral history as one of two yellow substances offered to the Diné by the Holy People. The Diné wisely selected the other yellow substance – corn pollen, which became their sacramental offering – leaving the leetso’ untouched, in the ground. As the story is frequently recanted in contemporary critiques of energy development, the Holy People told them they had chosen well, and that the leetso’ was dóó nal yea dah, or “that which should not be disturbed.”

In Cove, however, the leetso’ left behind long after these mines closed in the 1980’s is evidence of great disturbance. The yellowcake residue is a reminder of the thousands of pounds that were carted out of these mountains, first by horse and buggy by miners like Harry’s father, and later, by pick-up and dump trucks. Walking the mesa together, Harry calls to me to follow him to the edge of a steep and crumbling cliff precipice. I hesitate, but continue, wondering if my hiking shoes and quivering knees are up for the challenge. There, amidst white and blue wildflowers and moss-covered stones,

88 According to Diné researchers who have worked on this topic, the concept dóó nal yea dah, while of Navajo origin, was introduced to the tribal government by non-Navajo researchers and environmental advocates, underscoring the interpenetrations and mutual dependencies of knowledge systems at work in these ongoing energy debates.
lies a small pile of yellowcake, radiant and enticing. He stoops to pick up a piece, turning it over in his palm, admiring its natural color and glow. I wonder aloud if this is dangerous for us; he assures me he’s “not gotten sick yet.” Harry explains how the ore has to be split, separating the vanadium from the uranium before each can be trucked to different production sites for transforming vanadium into an alloy for iron and steel and uranium into plutonium for nuclear weapons and nuclear power. He knows, because before his work as an anthropologist and historian, he worked in the processing plant in Shiprock, a second-generation uranium worker making some of “the best money around” during that time. Though he has been tested for cancer and other toxic pollution illnesses, Harry is thriving and healthy at over sixty years old.

In addition to the tailings piles in Cove, the Navajo Nation has more than 1,000 abandoned open-pit and underground mines and four former uranium mills, releasing unknown amounts of radiation into the surrounding environment. The proximity of Los Alamos and its notorious Manhattan Project to the Navajo and Pueblo lands made these mines and mills strategically located for supplying a steady flow of uranium to the labs, meeting U.S. military demand for nuclear weapons development. As Joe Masco has shown, the geography of “security” maps in complex ways in northern New Mexico, with U.S. technologies of homeland and military security – institutionalized in places like Los Alamos Laboratories – bordering Pueblo communities’ and their ceremonial rites and technologies of security (Masco 2006). The landscapes of power connecting high-tech, high-profile sites like Los Alamos with rural communities like Cove are material; they require the mutability of uranium-vanadium, the labor of Diné miners, the expert
knowledge of non-Diné scientists and engineers, and an infrastructure of roads and transport mechanisms to shuttle the raw material from ground to lab.

Uranium’s legacy is material, its radon-daughter isotopes affecting bodies in the form of lung cancer and nonhuman ecologies through radioactive contamination. The miners, their families, and the communities in which this industry was introduced were not informed of the health effects of radiation exposure due to unventilated radon in the mines, though this knowledge was already circulating among federal agencies, public health researchers, and the mining companies themselves.\textsuperscript{89} As noted, some Navajo families used bricks and other materials from the abandoned sites to build their homes, and children played on the tailings piles, unaware of the radioactivity of these remains. Families’ experiences with cancer prompted grassroots organizing in the 1970’s and 80’s and partnerships between Navajo survivors and the state (namely, with then Secretary of the Interior Stuart Udall, who filed lawsuits against mining corporations and against the U.S. Department of Energy).

These efforts culminated in the passage of the Radiation Exposure Compensation Act in 1990, which was to provide “compassionate compensation” to miners and their survivors, recognizing that the U.S. should “assume responsibility for the harm done to these individuals” (Timothy Benally, Doug Brugge, and Yazzie-Lewis 2006, xviii, 138). Yet despite the persistence of tribal groups (like Diné CARE) in achieving and litigating this recognition, survivors cannot make claims unless they can provide

\textsuperscript{89} Although the science on radiation sickness began due to the effects of exposure in Czechoslovakian mines in the 1930’s, it was not conclusive in terms of direct causality until research in the U.S. in the early 1950’s by independent researchers and by the U.S. Public Health Service, which in efforts to be “neutral scientists” did not disclose the dangers of radiation to the public until much later (Timothy Benally, Doug Brugge, and Yazzie-Lewis 2006, 31-32).
paycheck stubs or other proof of employment in the mines, putting the onus of producing
a paper trail on families who often have not kept, or never had, such documents.
Implementation of RECA remains a contested, uncertain, and troubled arena, prompting
individuals like Harry Walters to undergo tests for exposure, and come away ambivalent
about his negative results. The Navajo Nation Council officially denounced uranium in
2005, with the passage of the Diné Natural Resource Protection Act (DNRPA), banning
uranium mining and processing on the reservation, reversing nearly a half-century of
reliance on leetso’ for employment and tribal revenue.90 In 2006, the Navajo Nation
hosted the Indigenous World Uranium Summit, drawing 300 people from fourteen
countries, fourteen years after a gathering in Salzburg, Austria, which declared the rights
of indigenous peoples to make decisions about uranium extraction on their territories.
Despite such tribal government proclamations and the collaborative work of Diné
grassroots like the Eastern Navajo Diné Against Uranium Mining (ENDAUM) and the
Southwest Research and Information Center (SRIC)91 in Albuquerque, pressures to re-
open mines on Navajo territory and contiguous geographies (such as the Grand Canyon)
continues, as the global market for uranium ore has climbed ten times since 2003.

90 For a detailed discussion of the Nation’s changing position on uranium mining, the significance and
contradictions implicit in the Diné Natural Resource Protection Act, see Andrew Curley, “Dóó nal yea dah:
Considering the logic of the Diné Natural Resources Protection Act of 2005 and the Desert Rock power

91 The Southwest Research and Information Center (SRIC) conducts ongoing research and advocacy related
to uranium mining on the Navajo Nation and surrounding communities. See http://www.sric.org for further
resources.
B. Courting Carbon: The Rise of a Coal Economy

Coal, atomic number 6, is the compacted, ancient residue of life from the Carboniferous Period, an era when glaciers moved, seas rose and fell, the climate changed, and towering trees and other plant life took root in swamps, eventually dying and remaining there, unconsumed by the carbon-hungry bacterial and insect life that had not yet evolved (Goodell 2006, 9). Over millennia, with the added help of burial, pressure and heat, this undecayed organic material – once lepidodendron and sigillaria trees – transformed into concentrated carbon, or coal. The physical basis of all living organisms, carbon is in its impure form in a lump of coal, its gradations of purity ranked as lignite (woody, 60% carbon), sub-bituminous (pressurized lignite, more pure carbon), bituminous (85% carbon, hard flinty and black), and anthracite (almost pure carbon, “rare and remarkably beautiful”). However, these ideal types do not capture the deep complexity of coal and its elemental factors (sulfurs and heavy metals, in particular), which determine how much pollution is emitted and how well it burns in a coal power plant, coal’s primary destination since the industrial revolution (Goodell 2006, 9-10).

In Diné cosmology, coal is the liver of the earth.

Native Nations are said to hold the third-greatest coal reserves in the world (Joseph P. Kalt cited in LaDuke 1999, 243). And although the Navajo Nation Council officially opposed uranium with the passage of the DNRPA in 2005 and hosting of the Indigenous World Uranium Summit, it has taken a very different approach to the now decades-old practice of mining Navajo coal. This seeming contradiction in tribal policy is at the heart of many energy activists’ critiques of the tribal government. While the tribal
government discursively frames uranium as “genocide,” it pursues coal mining and power plant projects without equivocation. At the same time, given the sheer abundance of coal on the Navajo Nation (estimated at between 2.5 to 5 billion tons of strippable coal) a U.S. electrical grid infrastructure built for coal, and the relative low financial cost of producing coal power, developing coal mines for regional power plants has “made sense” to many leaders who intend to develop the Nation’s struggling economy.

Understanding current debates over the ethics of coal, “clean” coal, and the Desert Rock Energy Project in particular requires at least a cursory review of the history of coal on the Navajo Nation. This highly prized, carbonized plant matter has not only fueled air conditioners in Phoenix, but has fueled Navajo state formation, as well.

In 1952, the Navajo-Hopi Rehabilitation Act mandated a survey of reservation resources, resulting in a report by the Arizona School of Mines that confirmed rich and recoverable reserves of oil, natural gas, and coal on the Navajo Nation. This report sparked interest in the growing energy industry, drawing regional utilities (such as Arizona Public Service) to explore the viability of mining coal for electricity generation at regional power plants (Needham 2006, 144). In 1957, the area between Burnham Chapter and Nenahnezad Chapter was leased for coal mining for the future Four Corners Power Plant, digging the foundation and expanding in subsequent decades to become what is now the 33,000 acre Navajo Mine. The 1960’s, 70’s and 80’s saw a proliferation of oil exploration and coal mining and processing efforts on and around the eastern region of the Navajo Nation, some successful, others not. Beginning with oil as the most lucrative resource, the Nation began to profit from bonuses, rent and royalty payments from the mining corporations, earning $76.5 million by the early 1960’s. With legal
support from the 1938 Indian Minerals Leasing Act (IMLA), the Nation was able to lease “unallotted lands” for oil wells to more than a dozen energy development companies. However, a complex set of legal and business processes governed by the IMLA purported to grant greater self-determination to Navajo leaders through this leasing process, but functioned in its complexity to marginalize tribal decision-makers, such that the Nation received payments but did not truly participate in the management and business of energy development. In sum, they received revenues but had little authority or agency in the processes of contract negotiation. Yet, as the revenues increased, they funded the expansion of the Navajo Nation government (through salary increases, new positions and consultants) and a surge – at least temporarily – of new modes of employment on the reservation.

Navajo coal, according to scientific accounts, is like most Western coals, relatively young, dating to the Paleocene Epoch, resulting from compressed peat bogs that included giant ferns, redwood, and cypress trees (Goodell 2006, 10-12). The most abundant non-renewable subterranean resource on Navajo land, coal’s post-war boom on the Navajo Nation occurred soon after uranium. In 1953 the Nation launched its first strip-mine operation, allowing Utah International, Inc. to explore the reserves south of Fruitland, New Mexico in the San Juan Basin (just outside the border town of Farmington). A land-lease contract allowed the mine to begin operations in 1957, followed by coal leases with Pittsburgh-Midway in 1964, Peabody Coal in 1966, and El Paso Natural Gas in 1968 (Williamson, Jr. 1983, 6). The 1960’s boom of interest in coal followed a decade in the 1950’s of relatively low demand for coal, as utilities had ample natural gas and oil prior to the 1960’s and coal processing in cities was avoided because
of its known polluting effects (Needham 2006, 151). Yet, tribal officials continued to press for coal development, touting it as crucial for the Nation’s future. It would be the way, in the words of former Navajo Chairman Paul Jones, toward Navajo “modernization,” “self-determination,” and “self-sufficiency” (Needham 2006, 153). Such rhetoric was in response, in large part, to the prevailing cultural-political climate of the moment, in which federal Indian law favored relocation of families into new territory (through the Navajo-Hopi Rehabilitation Act) and proposals for termination of Native Nations nationwide (as evidenced in the Menominee case) as a means of legally dissolving their political distinction and re-create Indians as Americans, first and foremost.

As demand for coal increased in the 1960’s, Navajo coal in the San Juan Basin (New Mexico/Eastern region of the reservation) was particularly attractive to energy companies due to the coal’s accessibility for strip-mining and its low sulfur, sub-bituminous nature. All of these companies mentioned above, with the exception of Peabody Coal, operated in the eastern San Juan Basin. On Black Mesa, the site of Peabody’s operations, the coal is sub-bituminous and bituminous, easily accessible with much of the coal lying at a depth ranging from four to eight feet. The mesa is also known as “Big Mountain” and Dziljíin in Navajo; it is called “Black” because of the seams of coal that run through it, outcropping on the edges and top of this 8100 foot mesa in the Arizona/Western region of Navajo and Hopi lands. The total amount of coal in this formation is unknown, estimates ranging from 4 billion to 21 billion tons, with at least 1 billion tons within 130 feet of the surface, making it easily strippable (Williamson, Jr. 1983, 6).
In Diné cosmology, Black Mesa is the female deity of the Navajo landscape. Situating their struggle as the protection of a sacred site and an issue of environmental justice, regional residents worked through governmental and non-governmental avenues to stop the mining of the mesa. As a result of the vigorous organizing, legal challenges, grassroots activism and coalition-building by the Black Mesa Water Coalition, the C Aquifer for Diné, To’ nizhoni Ani, and other affiliated groups, operations at the largest of two mines at Black Mesa were suspended in 2005 when the Mojave Generating Station it fed was closed down. While the Kayenta Mine on Black Mesa continued to operate, activists deemed this partial closure a huge victory, as it halted the transport of coal via a 273-mile above-ground slurry pipeline, using pristine groundwater to move tons of coal from the mine to a generating station off the reservation in Laughlin, Nevada, generating power for distribution to urban centers such as Phoenix and Las Vegas, primarily by Southern California Edison. Like many of these struggles, the victory was complicated—\nwith many activists’ family members working for the mine, these actions divided families, raised the persistent dilemma of jobs versus the environment, and yet productively launched these groups into a new articulation of “green jobs” and a “just transition” from coal power to an economy centered on renewable energy industry. However, at the time of this writing, the future of the Black Mesa mine closure is precarious; Peabody has successfully re-opened the Environmental Impact Statement process with plans to resume mining on Black Mesa.

92 Her male cohort is the Chuska Mountains, location of the controversial timber harvesting in the late 20th century. See Sherry 2002.)
Most Navajo coal from mines in the Eastern Agency of the reservation travels to the Four Corners Power Plant (FCPP) in Fruitland, New Mexico on Navajo Nation land, and to the San Juan Generating Station (SJGS), located 15 miles west of Farmington, NM, just north of the reservation boundary. Both power plants are within 40 miles of the proposed site for the Desert Rock Energy Project. The FCPP has achieved infamy as the largest source of nitrogen oxides (NOx) in the United States, emitting 45,000 tons of NOx annually. These existing plants on the eastern, New Mexico side of Diné territory are joined by two additional power plants in Arizona, on or adjacent to tribal land: the 2,250 megawatt Navajo Generating Station on the reservation near Page, Arizona and the smaller 995 megawatt Cholla Power Plant near Holbrook, Arizona, with Coronado and Springerville plants further to the south, closer to other tribal territories. Figure 4 shows the cartography for this particular landscape of power in the Southwest, both existing and emergent.

93 The U.S. EPA has proposed requiring pollution controls on the FCPP by requiring the facility be retrofitted with Selective Catalytic Reduction on all of the Plant’s five units. This meets the U.S.’s Clean Air Act requirements targeting all older coal-fired power plants in the U.S. with Best Available Retrofit Technology. Should this reduction go through at the FCPP, it would amount to a 36,000 ton reduction, or the equivalent of taking half of all Arizona’s gasoline-burning cars and trucks off the roads. Source: U.S. EPA Press Release, October 6, 2010.
Figure 3: Existing and proposed coal plants in the Southwest

Desert Rock is located in the northwestern corner of the state of New Mexico, its >1000 Megawatt size matched by the four neighboring plants (in counter-clockwise direction from Desert Rock): Four Corners, San Juan, Navajo, and Cholla.

Erected in the early 1960’s, the San Juan Generating Station (SJGS) is an 1800-megawatt coal-fired, four unit power plant, currently the 7th largest power plant in the West, generating nearly 60% of electricity for PNM, the state’s largest electricity provider. Larger than the SJGS, the Four Corners Power Plant (FCPP) generates 2,040 megawatts of electrical power, bought and distributed by several different utilities (Arizona Public Service, PNM, Southern California Edison, El Paso Electric, Salt River Project, and Tucson Electric Power) and sold to consumers in Arizona, New Mexico, Texas, and California. It was one of the first mine-to-mouth power plants in the Southwest, moving coal from the Navajo Mine operated by BHP Billiton directly to its five units. From the air, the FCPP is a study in geospatial design, its “cooling pond” resembling a large lake, its stacks sending up plumes of white exhaust, the flat San Juan River basin spreading north to the river and Hogback mountain range, and the circular agricultural fields of the Navajo Agricultural Products Industry (a farming and
agricultural processing business owned by the Nation) bordering the power plant to the west, with a few homesteads scattered to the south. Its location on tribal territory has resulted in regulatory ambiguities, such that until 2007, no federal, state, or tribal authority exercised regular regulations over the plant’s emissions. As one of the largest power plants in the U.S., the FCPP “emits 15 million tons of nitrogen oxide, sulfur dioxide, carbon dioxide, particulate matter, and mercury, an established neuro-toxin. The plant's annual emissions of nitrogen oxide, (NOx), are higher than any other US coal plant [in the United States], totaling 40,742 tons; this amount is equivalent to the emissions released from approximately two million vehicles driven an average of 15,000 miles per year.”

Although the precise public health impacts of such emissions are not fully known, the underlying vulnerability of the population is clear and is confirmed by Indian Health Service hospital physicians with whom I spoke. Anecdotally, residents of the city of Farmington and the edge of the reservation closest to these two power plants note a significant increase in cases of asthma, especially among children, as well as other respiratory and neurological ailments, including the mysterious “Navajo neuropathy.” Part of the challenge in obtaining such data lies in the job insecurity felt by many of the medical staff of the federally-funded Indian Health Service hospitals and clinics. Despite repeated efforts, citizens’ groups report being unable to obtain any reliable data from the IHS or other tribal or federal agencies. Furthermore, as many anti-coal activists have pointed out, there have as of yet been no comprehensive health studies of the present

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impacts of the two existing power plants on regional residents, both Diné and non-Diné. In public hearings during the summer of 2007, numerous doctors, nurses, and health workers testified to the increase in illness among their patients due to the intensity of fossil fuel pollution. However, the lack of comprehensive, third party epidemiological data on this issue has contributed to the ambiguity of claims to harm, danger, sickness, and cleanliness made by both sides of the fossil fuel debate.

Among the Diné, a population already disproportionately impacted by Type Two diabetes, heart disease, obesity, higher-than-national rates of domestic violence, suicide, homicide, infant mortality, motor vehicle injuries and drug-related deaths\(^95\), the complexity of isolating causal factors for a myriad of illnesses is difficult, and thankfully, is being taken up by other researchers. An appreciation of underlying vulnerability, however, suggests that greater exposure to airborne, particular matter -- guaranteed with carbon combustion – means a population whose health is already dramatically compromised will in all likelihood, get sick, or sicker.\(^96\) Confirming this vulnerability, IHS patient care statistics show that in 2004, out of 77,000 hospital admissions to IHS, tribal direct, and contract general hospitals serving American Indian populations nationwide, nearly 42% of admissions were in two IHS areas: Oklahoma, with 12,355

\(^95\) See the U.S. Department of Health and Human Services Indian Health Service Division of Program Statistics for detailed statistics on all IHS service areas as well as Navajo Nation, in particular. www.ihs.gov.

\(^96\) For more detailed discussion and other citations on this epidemiological approach to showing underlying community vulnerability leading to individual susceptibility and increased exposure among impacted populations, especially when exposed to airborne particulate matter, see the work of Steve Wing and colleagues (Steve Wing et al. 2008; Norton et al. 2007; Stingone and S. Wing 2010).
admissions and the largest at Navajo, with 20,105 admissions. New impacts through additional carbon emissions thus produces heightened vulnerability to asthma, in particular, and thus increased risk of contracting heart disease, diabetes, and other medical conditions. However, ethnographically, the evidence suggests patterns of sickness do in fact exist. Interviews (my own and others’) with area residents and doctors reveal a disturbing number of physical ailments, from asthma to headaches, noticeable ecological changes such as the disappearance of particular plants and animals, and new weather and landscape patterns such as excessive dry periods and the low-lying yellow haze now recognizable to anyone living in the San Juan Basin. Furthermore, it is now widely accepted that mercury and carbon dioxide – two of the primary emissions of any coal-fired power plant – have devastating effects on human, non-human, and environmental health.

II. The Rise of Energy Activism

A. Burnham Foreshadowed: The “Colonial Critique” of Energy Development

An important historic conjuncture in the 1960’s made energy development the target of a rising tide of Diné youth activism. With the increase of oil exploration and coal mining operations and the long-distance transportation of coal to regional power plants (such as from the mines at Black Mesa through 128 miles of above-ground slurry pipes to the Mojave Generating Station in Nevada), the power lines, substations and

97 U.S. Department of Health and Human Services, Indian Health Service, “Regional Differences in Indian Health, 2002-2003 Edition,” available online at www.ihs.gov. General mortality statistics also confirm the disproportionately higher rates of death among American Indian and Alaska Native populations at all ages, as compared with reported national averages for all races.
railroads required of energy development materialized, making the growing energy industry visible. This visibility of energy operations garnered critical attention from radical National Indian Youth Congress activists in the Southwest, galvanizing Navajo members of these pan-Indian movements (Needham 2006). Launching an independent, non-tribal newspaper called Diné Baa-Hani in 1969, youth activists – including John Redhouse, who twenty years later became a leading force with Diné CARE – produced their own forum for criticism of the Nation’s increasing reliance on energy development as economic development, framing the extraction-based, export-driven model in a discourse of anti-colonialism. As Needham notes, these activists were influenced by recent decolonization movements in the global Third World as well as the national American Indian Movement (AIM); situating their struggle against energy corporations such as Peabody Coal (owner of the mines at Black Mesa), these activists took up interviewing reservation residents, writing and reporting as methods to advance their “increasing militancy” and growing critique of coal development across the reservation (Needham 2006, 311-315). Although their “colonial critique” also targeted representations of Navajo people, among other issues, it was the youth activists’ “critique of energy development that would have the most enduring impact on Navajo politics” (Needham 2006, 315).

Several years later, when AIM members conducted an armed occupation of Black Mesa Mine No. 1 and its drag shovels and six months later, staged an armed occupation of the Fairchild Semiconductor Plant in Shiprock, the infrastructures of energy development were made visible as political machines in the minds of these youth activists (Needham 2006, 348-349, my emphasis). As such, this rising tide of Diné
nationalism – and the broader pan-Indian movement – was responding to specific technologies of power production and distribution. Ultimately, however, youth activists’ critique of the tribal government’s embrace of extractive industry cut both ways: it set the stage for a change of power in tribal leadership, making way for Peter MacDonald to become Tribal Chairman in 1971 on a platform of “anti-colonial populism” and self-determination defined as control over natural resources, and yet, it led to conflict between these youth activists and MacDonald’s new administration, as MacDonald formed the Council of Energy Resource Tribes (discussed below) and expanded energy development on the reservation, which the youth activists wanted to see ended altogether.

A proposal for coal gasification technology in the Navajo community of Burnham, New Mexico became a defining event for this energy activism, foreshadowing some of the recent controversy surrounding the Desert Rock Energy Project proposed for Burnham. Coal gasification proposals revealed the rupture in meaning between the colonial critique of Diné youth activists and the colonial critique of MacDonald’s tribal administration. Proposed in 1972, El Paso Natural Gas and WESCO approached the Nation about leasing land for coal gasification plants to meet the growing need for natural gas in Southwestern cities, heeding U.S. President Nixon’s call for “clean” fuel alternatives to coal (Needham 2006, 340). Forty miles south of the border town of Farmington, the Burnham community had no running water or electricity apart from two generators. However, it did have – like most communities on the Navajo Nation – people

98 Needham argues that this disjuncture was fundamentally one of how nationalism was imagined and pursued by both the youth activists and the tribal leadership. While both asserted control, identity, sovereignty, and independence, their politics and practices of how to attain such national status were often in direct conflict. This conflict defined tribal politics throughout the 1970’s and 1980’s, as MacDonald and Peterson Zah vied for power, culminating in collective action and violence in 1989 in Window Rock and the restructuring of the Chairmanship and Executive Branch of the Council.
in search of employment but no viable economy to support this demand for jobs. Capitalizing on this desire, WESCO and El Paso agreed to a “Navajo hiring preference” policy, claiming that over time, the plants’ employees would be majority Diné. In a detailed textual analysis of the public debate over the proposed plants, which would convert coal into a crude form of methane and then into synthetic natural gas (SNG), Needham’s analysis of the Burnham controversy foreshadows events and debates surrounding Desert Rock that would occur thirty years later concerning the very same community. He shows that during the five years of the debate over coal gasification, two narratives of Navajo tradition were constructed against one another, with tribal government energy activists pushing for the coal gasification with a narrative of tradition based on the Navajo method of thinking, planning, and strategizing for change; while at the same time, youth activists and Burnham residents resisted these energy technologies, deploying a narrative of Navajo tradition grounded in the historical connection between people and the landscape, arguing that to disrupt this connection was to fundamentally disrupt Navajo culture. Another key point in the debate centered on youth activists’ critique of the relationship arranged between the Nation and the energy companies: it was to be a lease agreement (for the land) and payment of royalties (for the sales), rather than an equal partners, joint venture relationship model as MacDonald had promoted. Despite MacDonald’s characterization of the coal gasification plants as a “necessary evil” for the advancement and development of the Nation, and despite the companies’ promises of environmental mitigation, employment, and new infrastructure for the community, the residents of Burnham voted three times to reject the plants. In fact, the Burnham Chapter went so far as to issue a letter to MacDonald, demanding that
he recall the proposal for coal gasification and cease any future negotiations on such technology. With the armed occupations at Black Mesa mine and the Shiprock semiconductor plant, local opposition was reinforced.

Lending recursivity to this history, one of the leading youth activists in Needham’s historical account, John Redhouse, has become one of the leading critical intellectuals writing against Desert Rock today. Recalling his own experience as a youth activist during these early Burnham struggles, Redhouse points out this complex history of energy proposals and tribal members’ critical responses, noting the generational ramifications in the Burnham struggle (Redhouse n.d.).

Redhouse records how the parents of Lucy Willie, now an elder herself helping lead the present struggle against Desert Rock, filed an intervention with the Federal Power Commission against the proposed coal gasification plants. These elders (Lucy’s parents and others like them), foreshadow the struggle against Desert Rock that their children would take up more than thirty years later. Concurring with Needham, Redhouse acknowledges that these particular 1970’s proposals “failed due to community and tribal opposition” (Redhouse n.d.).

Bolstering local resistance, the passage of the National Environmental Policy Act (NEPA) in 1969 created an additional, national hurdle for the coal gasification proposals, changing the regulatory conditions that companies had enjoyed prior to its passage. As federal trust land, reservation territory fell under NEPA’s new requirements for an

99 See John Redhouse’s report, “Desert Rock: 1953-2003,” unpublished manuscript. Redhouse was one of the founding members of Diné CARE and has written prolifically on energy development, sovereignty, and environmental justice. His papers from 1972 – 2006 are inventoried at the University of New Mexico’s Center for Southwest Research, Albuquerque, NM.
Environmental Impact Statement process for any development on federal land, resulting in an EIS on the proposed coal gasification that predicted devastating effects for the health, environment, and “traditional lifestyles” of the Burnham region. After five years of struggle, with resistance at the local level and complicated regulatory hurdles at the national level, the proposal was defeated.

“Burnham marked the last time new energy developments were seriously considered by the Navajo Nation,” writes Needham referring to the 1972 coal gasification struggles (Needham 2006, 352). However, in the few years since Needham made this claim, Burnham and its coal proposals have returned. In 2003, the Nation, partnering with a transnational energy company, proposed that a 1500-megawatt coal-fired power plant be built in Burnham, just a few miles from the coal gasification facilities proposed thirty years before. The controversy over coal development surfaces again. Yet, whereas Needham found 1970’s activists categorically rejecting energy development, today we see many contemporary critics, though rejecting coal development, are promoting alternative forms of energy production. Technology is no longer monolithically “colonial,” as once imagined. Still, the abundance of accessible, sub-bituminous coal, the existence of the Navajo Mine, and the expansion of electrical transmission lines continue to make Burnham an ideal location for coal power development, from the industry’s perspective. Surprisingly, few people working in Burnham on the Desert Rock issue today openly remember the 1972 debate over coal gasification. It shimmered just beneath the surface of the public debates over Desert Rock in 2007 and in the accounts of local residents, regional activists, and tribal leaders. This absence, however, is supplanted by
the recollection of related, more recent histories of energy activism by both tribal and grassroots leaders.

B. Navajo Energy Policy and the Council of Energy Resource Tribes

To date, the Navajo Nation has not developed its own energy policy. For more than thirty years, academics, activists, and policymakers have been urging the Tribal Council to establish a coherent energy policy for mineral development on the reservation, but with little legislative success. Increasingly, the movement for such a policy is shaped by the politics and possibilities of developing wind and solar resources, as either complementary or alternative technologies to coal, oil and gas extraction on tribal lands. Some tribal leaders, like Navajo Nation Vice-President Ben Shelly, are turning renewed attention to developing a tribal energy policy, especially as controversies emerge over appropriate technologies and land use for new power plants, wind farms, and transmission lines. Shelly raised the continued need and complicated challenges in setting such a policy for the Nation, relating the burgeoning movement for a tribal energy policy to the broader, older, national movement embodied by the intertribal Council of Energy Resources Tribes (CERT).

“There is also another energy policy, which is CERT’s. Now this is a Native American Indian policy – they have a group, CERT. It’s still around. But I went

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100 At least as early as 1980, Lorraine T. Ruffing’s critique of the uneven development of mineral resources among American Indian Native Nations, and the Navajo Nation in particular, stands out as a thoughtful, thorough analysis and agenda for action to increase tribal sovereignty vis-à-vis control over its energy resources. Her analysis focuses on the power of transnational corporations, American contract law, Indian mineral dependency, federal mismanagement, and effects of a misunderstood “energy crisis” in shaping how Native Nations manage – or fail to manage – their energy resources, through tribal policy change. See Ruffing 1980.
Shelly is not alone in his critique of CERT as remaining too embedded in coal, following an increasingly outdated and politically unsustainable model of energy development. Even as he critiques CERT’s leadership and urges the Navajo Nation to go forward on its own, the history of CERT is a movement intimately tied to the Navajo Nation. It was formed in 1975 under the leadership of Navajo Chairman Peter MacDonald, just a few years following his proposal for coal gasification facilities in Burnham. Working in coalition with twenty-four other energy resource owning Native Nations, MacDonald successfully formed “an organization capable of collective action” (Ruffing 1980, 48). Control over tribal resources was its primary aim, constituting a radical departure from the dominant, colonial development model of federal and/or corporate control and management of tribal mineral resources. As President of CERT,
MacDonald brought his experience on one of the most mineral-rich nations into this new national platform for intertribal advocacy, critiquing the Carter administration for not only failing to include leaders of Native Nations at the pivotal energy policy talks held at Camp David, but for ignoring altogether that 20% of the U.S.’s mineral resources lie beneath Indian territory (Ruffing 1980, 49).

MacDonald imagined the Navajo Nation’s mineral wealth to be of great historical significance, harboring the power to control power in the greater Southwest region, thus affecting the emerging “SunBelt” cities of Phoenix and Los Angeles as they boomed and bloomed. MacDonald and other CERT leaders further challenged U.S. leadership when CERT consulted with members of OPEC (Organization of Petroleum Exporting Countries), countries hailing primarily from the Arab world and Latin America, transferring the U.S.’s negative image of OPEC to the newly formed CERT. However, given the variety of mineral resources CERT members held (coal, oil, gas, and uranium), CERT’s power to have any real effect on prices was limited (Ruffing 1980, 50-51).

Moreover, lacking independent legal status (in other words, the true sovereignty enjoyed by OPEC member countries), Native Nations that were members of CERT were limited in legal recourse for transforming the exploitative nature of existing leases of tribal land. MacDonald’s proposal of “joint ventures,” with particular stipulations, became the method that CERT hoped would transform the colonial relationship between Native Nations and energy corporations (Needham 2006, 336).

No matter what its relative lack of success, CERT’s significance as a model of energy activism cannot be underestimated. Thirty-five years later, CERT continues to operate as a voice for mineral-rich Native Nations in addressing Congress and mobilizing
individual Native Nations to control and protect their interests in energy development. Although many contemporary leaders like Vice-President Shelly – not to mention a vast network of green energy activists – view CERT as lacking the political vision needed to bolster alternative energy development, favoring instead the status quo and ear of Congress, CERT’s energy activism emerged at a moment when Native Nations had not collectively organized to transform business practices on their lands and change national policy. Theirs was a different register of activism than the Diné youth involved in the American Indian Movement or the elders of Burnham, but the direct challenge CERT leaders posed to the U.S. government and recognition of the landscapes of power in which their tribal economies were enmeshed, cannot be dismissed. At present, as Shelly’s reflections suggest, CERT figures as a benchmark against which Native Nations can evaluate and implement their own policies – and even “form their own teams,” to use Shelly’s sports metaphor, if they feel CERT’s stance is not aggressive enough. CERT’s contemporary vision to “restructure the federal-Indian relationship” and to assist Native Nations in building “self-governed economies” are by all measures radical goals, extending the anti-colonial position founding the Council. By other accounts, CERT is culpable for putting Native Nations in precarious positions financially and environmentally by working to secure bids for U.S. Department of Energy disposal sites for toxic and radioactive waste (LaDuke 1999, 101). The ongoing debate, however, among Native Nations, non-governmental groups, states, and the federal government as well within Native Nations -- as this dissertation primarily explores -- is exactly which infrastructures, technologies, processes, and voices hold the solutions to such visions.

While energy politics at the national scale ushered CERT into global debates on the oil crisis, the geopolitics of the Arab world, and a globalized view of indigenous resources, residents in some of the most remote interior of the Navajo Nation grappled with the intimate, everyday energy politics of hauling water from area springs and wells for household and livestock use, relying on generators or having no electricity at all, burning wood for heat, and expending precious gasoline to travel long distances to laundromats and grocery stores. In one such locale in the southwestern region of the reservation, Dilkon, Arizona, residents found out about a “development” deal underway between Chairman MacDonald and Colorado-based Waste-Tech corporation, which would bring tons of medical and toxic waste from all over the U.S. to a treatment facility in their rural community. The $40 million offer sounded appealing to some residents and certainly to the tribal leaders spearheading the project. But in 1987, with the surge of a new kind of environmental movement redefining “nature” through collective action in Warren County, North Carolina, and Love Canal, New York, the disproportionate siting of hazardous wastes in low-income, communities of color was in the national spotlight as the epitome of “environmental injustice.” Rejecting the euphemistic “regional landfill” proposed to the community, “the matriarchs in Dilkon came forward, and talked about life in its entirety,”102 protesting the proposed treatment facility. This group of Dilkon women, authoritative as decision-makers about the land customarily under their control, organized with other residents as “Citizens Against Ruining our Environment.” They worked locally to convince voting members of the Dilkon Chapter to reject Waste-Tech’s

proposal, which they achieved two years later, in 1989. Stopping the toxic waste dump planned for their community garnered the attention of indigenous activists from other nations, catalyzing the first Protecting Mother Earth gathering in Dilkon in 1990 and the formation of the Indigenous Environmental Network, discussed below (Sherry 2002, 50-53).

Dilkon leaders of CARE, Lori Goodman and Anna Frazier, among others, such as John Redhouse, a veteran member of the National Indian Youth Council of the 1960’s and outspoken critic of the coal gasification proposal at Burnham and the mines at Black Mesa, expanded CARE’s work beyond the lava butte landscape of Dilkon, responding to requests from other Diné communities working on similar energy and environmental issues. They formed alliances with tribal members active in the eastern part of the nation, like Adella Begaye and her husband Leroy Jackson, who were working on issues particular to the piñon, juniper, and ponderosa pine trees of the Chuska Mountains, 550 square miles of dense forest along the northeastern Arizona and northwestern New Mexico border. Much of Diné CARE’s work in the 1990’s focused on the commercial logging practices of the Nation’s own Navajo Forest Products Industries, calling for a stop to the Nation’s harvesting of timber for processing and export to regional markets. Although archaeological research shows that these towering pines were harvested and exported to build parts of the housing and ceremonial complex at Chaco Canyon from the 9th-12th centuries A.D., the modern history of forestry on the Navajo Nation is a story of

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103 In the structure of political authority on the Navajo Nation, any development project planned for a community must be approved through a Chapter Resolution by the local chapter. Thus, much of the debate over energy development – as well as other land use issues – takes place at the chapter level, with high stakes in passing resolutions, as these decisions must then be taken seriously by the Tribal Council in Window Rock.
exporting timber (along with uranium) to construct other types of energy monuments, like the homes and offices at Los Alamos National Laboratories, the birthplace of the atomic bomb (Sherry 2002, 25).

Earl Tulley of Diné CARE recounts how Leroy traveled to the West Coast numerous times, meeting with scientists and forest management specialists, learning how to calculate board feet, project erosion effects, analyzing what he and others believed was rampant clear-cutting in one of the nation’s few forested regions. After several years of contesting the Nation’s position and many tribal members’ livelihoods as loggers, his likeness burned in effigy at one rally and his tactics debated in the Navajo Times newspaper, Leroy was discovered dead in the back of his van. John Sherry’s ethnography renders a detailed account of this history, as he was living with Adella and Leroy during Diné CARE’s work to protect the forests and Leroy’s death. Adella remembers those years, the late 90’s, with surprising candor and clarity, noting the complexity of relationships between activists like her late husband and the energy industries in which they were entangled, even employed. One day in our home, I notice a chipped ceramic mug sitting on the kitchen windowsill, tucked behind a potted plant and cabled to the wall with spider webs, and I understand. In fading letters, the mug reads:

CONGRATULATIONS!
OUTSTANDING JOB ON CAPACITY FACTOR TEST PERIOD
FOUR CORNERS POWER PLANT
SEPTEMBER 1979-MARCH 1980
LERoy JACKSON
Following a sharp increase in their visibility as a force on the Navajo Nation, largely due to their 1994 success in passing a tribal moratorium on logging in the Chuskas, Diné CARE expanded its network and became involved in a number of natural resource, human rights, and energy-related issues. Approached by survivors of uranium exposure and other Navajo community members working on the legacy of uranium mining, Diné CARE helped build momentum for a reservation-wide grassroots movement to reform the Radiation Exposure Compensation Act, or RECA, passed in 1990. There was widespread awareness that the existing Act discriminated against Navajo miners and their families because of certain cultural practices. For instance, as written, the Act required legal marriage licenses (which many Navajo couples do not obtain) to prove connections to the deceased or now decades old pay stubs to prove employment. With Email now making it possible to expand their work beyond the previous door-to-door methods of community organizing, Lori and Anna, in particular, connected with radiation exposure movements across the U.S. and around the world, including activist in the Marshall Islands. Intensive negotiations, betrayals, and shifting alliances with Washington lobbyists, tribal politicians, grassroots activists, and national committees eventually resulted in Diné CARE taking a leading role in the passage of a bill in 2000 to reform RECA. But as Sherry notes, “no victory is ever secure,” (Sherry 2002, 221), and the RECA reform bill has yet to produce the true compensatory federal actions that activists hoped for. However, Diné CARE activists remember their hard work on RECA, which ended in 2002, being part of the broader campaign to end uranium

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104 Passed in 1990, RECA was amended in 2000 and again in 2002 under a separate bill.
mining on the reservation – a success they achieved with the passage of the Diné Natural Resources Protection Act in 2005.  

Diné CARE remains an informal network of tribal activists, both elders and youth, with no central office, no Executive Director, and a loose-knit board of advisors that meets periodically. Its leading community organizers partner with other energy and environmental groups across the reservation, like the Black Mesa Water Coalition, the C Aquifer for Diné, the Just Transition Coalition, the Eastern Navajo Against Uranium Mining, and To’nizhoni Ani to pressure tribal officials to move away from a reliance on extractive industry as economic development and toward alternative energy technologies, such as wind and solar. In 2003, Diné CARE’s attention turned to the Desert Rock Energy Project, the coal fired power plant proposed for Burnham. Diné CARE has, in the words of leading organizer Anna Frazier, “a life of its own.” Though it has identifiable, small corps of community organizers and is incorporated as a non-profit organization, its lack of any true “center” – physical or managerial – makes it more of networked entity, its action gathering momentum around specific energy and environmental issues across the reservation as they occur. It has, in this perspective, an emergent quality; always greater than the sum of its constituent parts, relational, and unpredictably shifting, following and producing energy politics on the Nation and in the wider region, translating issues on the Navajo Nation at trans-local forums of energy activism, such as the United Nations Permanent Forum on Indigenous Peoples, Department of Energy meetings in

105 Interview with Anna Frazier, Dilkon, AZ, June 13, 2008; Interview with Earl Tulley, Chinle, AZ, February 18, 2008.

106 Interview with Anna Frazier, Dilkon, AZ, June 13, 2008.
Washington, the U.S. Social Forums, national non-governmental conferences and funding agencies, the Copenhagen Climate Change Conference, and in a recursive manner, feeding back into the work of the Indigenous Environmental Network and Honor the Earth, organizations that grew out of Diné CARE’s activism against the toxic waste treatment center in Dilkon.

**D. Building a Movement for Energy Justice: IEN and Honor the Earth**

Also born at Dilkon, the Indigenous Environmental Network (IEN) later helped spawn the national campaign Honor the Earth, (along with support from the Indigenous Women’s Network), focusing their efforts on environmental justice issues in Native American and First Nations communities. Differentiating themselves from mainstream environmental and social justice groups, both IEN and Honor asserted pan-Indian identification as the historical difference informing their critique of the “energy colonialism” experienced by indigenous peoples in the U.S. and Canada. Charismatic, leading intellectuals fueled the development of what eventually became two independent organizations sharing similar critiques of U.S. energy policy and many tribal government policies, as well. The role of Tom Goldtooth (Diné) as a rising Native leader was bolstered, in large part, at the landmark 1991 People of Color Environmental Leadership Summit. IEN was just emerging at that time, and as one of the few Native leaders at the Summit, “very high expectations were placed on Tom and IEN” to advance environmental justice in Native communities.¹⁰⁷ Not long before, Winona LaDuke

(Anishanaabe) left her home on the White Earth reservation in Minnesota to work on the Navajo Nation on environmental and development issues, before earning a degree in economics from Harvard University and returning home to launch the national campaign Honor the Earth as well as the White Earth Land Recovery Project, an organization focusing on land recovery and Native foods revitalization on her home territory. Both Goldtooth and LaDuke, along with their many colleagues, identify energy development and its effects on sacred sites, economies, health, landscapes, and tribal politics as the core problem facing many – and especially Southwestern and Midwestern – Native communities in the U.S. Their organizations became hubs for organizing, funding, leveraging resources, networking, and discursively producing a new analysis of “energy justice,” deployed, and also transformed, by grassroots tribal groups like Diné CARE.

In October 2004, at an Indigo Girls concert in Salt Lake City with Honor the Earth as the beneficiary, LaDuke takes the stage in between musical sets, her raspy, Midwestern accent reverberating through the microphone: “Energy is the biggest business in the world, there’s just nothing else that even begins to compare.” She pauses for a moment, then changing her tone, explains, “These are the words of someone who ought to know – Lee Raymond, the Chairman of Exxon Mobil.” A ripple of laughter runs through the audience and she goes on to describe how many American Indian Native Nations have “always been energy players,” but in an economic arrangement that has left them powerless – both politically and materially. The reparative response to this history is, she announces, alive in grassroots campaigns for “energy justice,” transforming tribal territories from sites of intensive mineral extraction to places where solar and wind power are produced both for local and non-local consumption. This vision of energy justice thus
involves not only the cessation of fossil fuel reliance, but the generation of new models of community economic development based in alternative energy.

The movement for energy justice was crafted carefully by Honor the Earth leadership, in conjunction with Native and non-Native allies, advisors, and supporters, around the year 2000. Backstage after the show, Indigo Girls Amy Ray and Emily Saliers recall how the advisory board of Honor the Earth (on which they sit as non-voting members) crafted energy justice as a self-aware, critical “movement,” enabling allies – like themselves – to participate in “an easier and a clearer cut way” of supporting tribal communities. The emphasis on energy justice allowed them to exercise their power as public figures, pressuring energy corporations, federal agencies, and politicians on specific energy development proposals in a manner that steered away from the more difficult issues of intercultural collaboration, such as language and cultural preservation.108

Three years later in the town of Shiprock, on the Navajo Nation, LaDuke takes the stage again with the Indigo Girls, joined this time by members of Diné CARE and Doodá Desert Rock, local, non-governmental groups opposing the proposed Desert Rock Energy Project.109 The spatiality of the event established the activists’ expertise on the issues; seated on stage, facing the audience, the activists took questions about the Project proposal, the Nation’s official position, the investors and finances of the plan, and – of most concern to the largely regional audience – the environmental and health risks a new

108 Interview with Amy Ray and Emily Saliers, Salt Lake City, October 1, 2004.

109 This moment, in 2007, is the “official” start of my fieldwork period, described as part of the “Four Arrivals” section of the Introduction. Events and interviews prior to this moment were part of preliminary fieldwork and/or my own involvement as a collaborator with Honor the Earth, as part of my work as the Indigo Girls’ political organizer.
coal plant would introduce to the area. Inside the town’s newly constructed performance hall, the message of energy justice – as a circulating, national discourse of the Native environmental movement – was translated in terms of the painful history of uranium mining on the Navajo reservation, the disproportionate impacts of oil, gas, and coal extraction on the residents of northern New Mexico, and the oral history of Navajo Creation, in which roving monsters were slain by a pair of male Hero Twins born from the supreme deity, Changing Woman. Even the most seemingly mundane objects reflect this work of translation. For instance, the event tee shirt, designed by Navajo artist Ron Toahani Jackson, shows a contemporary rendering of a pair of deities, vaguely recognizable as the hero twins by their symmetry and bodies marked with corn stalks. The back of the shirt carries the shows’ message: “Stop the Desert Rock Coal Plant / Support a Just Transition to Safe Energy.” Products like the tee shirt thus brand and materialize the movement, transporting and transforming traveling notions like energy justice into specific histories of indigeneity. This object does more discursive work, as well, making an equivalency between “renewable” and “safe,” implicitly positing the Desert Rock Coal Plant as the real monster waiting to be slain.

The energy politics of the Native American Energy Justice movement, as evidenced in the work of Honor the Earth and the Indigenous Environmental Network, while rooted in the colonial critique established by the 1960’s predecessors of the National Indian Youth Council and the American Indian Movement, is not intrinsically anti-state or anti-development. The political vision Honor the Earth and IEN advance, in collaboration with numerous other groups and leaders, is a partnership with federal agencies and policies focused on developing renewable energy projects on tribal lands.
For instance, LaDuke cites a study commissioned by former U.S. Energy Secretary Bill Richardson (present Governor of New Mexico) showing that “sixty-one Indian reservations appear to have renewable resources that might be developed for power generation at a cost of less than two cents per kilowatt-hour above regional wholesale prices,” and goes on to quantify this potential: “half of the reservation-based American Indian community lives on these 61 reservations” (LaDuke 2005, 239). Drawing upon research and funding from state and federal agencies – including the Department of Energy – LaDuke and other movement leaders, like the Intertribal Council on Utility Policy (ICOUP), are assessing the capabilities of tribal lands to meet current and projected U.S. energy demands.\(^{110}\)

However, significant policy and infrastructural barriers stand in the way of Native communities’ full participation in these possibilities. For example, tribal ownership and financing of renewable energy projects is handicapped by limits set by the federal government’s Production Tax Credit (PTC), a tax incentive offered to states to promote (and effectively subsidize) renewable energy projects. Because of their sovereign status, Native Nations do not have any federal income tax liability against which to apply these credits, and therefore cannot take advantage of the PTC. For many Nations, this makes ownership of large-scale projects nonviable, so they lease their land to energy companies for construction of wind and solar facilities. The Indian Energy Promotion and Parity Act of 2010, if passed, would help tribal governments take advantage of federal renewable tax credits. Likewise, challenges with electrical transmission, marketing power, federal

\(^{110}\) The National Renewable Energy Labs state that while Indian lands amount to 5% of the total area of the United States, they hold 10% of the U.S.’s total renewable energy potential.
review processes and permit delays create barriers to Native Nations’ full participation.\textsuperscript{111} Moreover, the Energy Policy Act of 2005 made no provisions for renewable energy projects to gain access to the U.S. electrical grid, currently dominated by coal power. However, trans-tribal organizations such as ICOUP are working to change such policy restrictions, navigating the legal ambiguities inherent in the “domestic dependent” status of Native Nations. Advocating for diverse portfolios of energy development, the national Council of Energy Resource Tribes (CERT), parallels the formation of many tribal and extra-governmental, movement and NGO initiatives to transform the relations of power between Native communities and the governments and corporations that together, affect the land use policies and livelihood effects on tribal territories and members.

Central to this work is an attempt to transform current dependencies and paradigms of “energy colonialism” produced through tribal energy development into “energy sovereignty” for Native Nations, yet with a technological twist. This discourse is familiar in that assertions of sovereignty and justice – in the lexicon of self-determination – were central to the 1980’s mission of Navajo Chairman Peter MacDonald and CERT in organizing Native Nations for greater control over the production and “prudent development” of their energy mineral resources. However, Native environmental justice organizations such as Honor the Earth and IEN are distinct in their approaches to technology, calling specifically for investment in wind and solar power to position Native Nations to lead the U.S. in “energy independence,” turning a national discourse (resonant

\textsuperscript{111} Interview with Bob Gough, Intertribal Council on Utility Policy, Santa Fe, N.M., April 17, 2008. For a fuller discussion, see “Summary of Barriers to and Key Policy Changes for Development of Large-Scale Wind Projects on American Indian Reservations,” Intertribal Council on Utility Policy report, 2009. Available at www.intertribalcoup.org
with “homeland security” and “energy independence”) back on itself, arguing that true independence cannot be based in nonrenewable resources and must include a comprehensive approach to building community economies. As one national leader asserts:

“Reservations are communities, and the question is, how do you create a sustainable and self-sufficient community? At the same time that we’re advocating for this tremendous potential for Native lands to be a hub for renewable energy development that could literally help power the nation, we’re trying to nurture community capacity, growing intellectual and technical skills, and demonstrating the viability of a new local energy economy. We are dealing on a grassroots level, going small turbine to small turbine and solar panel to solar panel and looking at the benefits of creating renewable energy systems that foster community.”

This vision is being implemented through pilot renewable-energy projects, community education, and youth and elder trainings, evidenced by Honor the Earth’s half-dozen ongoing renewable-energy projects in diverse indigenous territories, including: a 65-kilowatt wind turbine powering the tribal radio station on the Pine Ridge Lakota reservation; solar heating panel installations for homes and community centers on the Northern Cheyenne reservation; and funding trainings on indigenous territories in the U.S. and Mexico for indigenous youth to develop solar installation skills. Honor the Earth has partnered with engineers and nonprofit organizations such as the Intertribal Council on Utility Policy, as well as tribal governments, on numerous other projects: for example, the first Native-owned-and-operated wind turbine in the United States, installed on the Rosebud Lakota reservation in South Dakota; solar photovoltaic (PV) installations on the

112 Faye Brown, Honor the Earth staff member, personal communication, March 4, 2008.
reservation of the Skull Valley Band of Goshutes in Utah; and solar power on the Dann Ranch in Western Shoshone territory in Nevada.

In many cases, the politics of energy performed by renewable hardware is dialogic. Solar and wind installations are made as counter-technologies to other proposals. For instance, the residential solar PV projects on the Skull Valley Band of Goshutes went in as part of a broader campaign to critique the proposal for a high-level nuclear waste storage facility to be sited on the reservation. The Nation in internal negotiations over a widely controversial deal with the energy company Private Fuel Storage (PFS), to construct above-ground casks that would receive spent fuel from nuclear power plants across the U.S., storing the toxic waste for approximately forty years, until it would be transferred for permanent storage at the Yucca Mountain site, also on Shoshone territory. The vast difference in scale between high-level nuclear waste storage casks and residential solar panels notwithstanding, the politics of energy in Honor the Earth’s pursuit of community-based solar power generation was always in response to the federal-tribal-corporate proposal for nuclear waste as a means of tribal economic development. As Kimberly TallBear and Noriko Ishiyama have noted in their work on this complicated case at Skull Valley, the environmental justice and injustice in question has not been so clear-cut (Ishiyama and TallBear 2001). Nor has the Nation been fully equipped with the knowledge, technical expertise, and legal avenues to make a fully informed decision about the risks, consequences, and potentialities of taking on the United States’ nuclear waste. Local activists and public figures such as Margene Bullcreek have challenged their tribal leadership on its legitimacy to make binding decisions with PFS, becoming national spokespeople for “energy justice.”
The Energy Justice Movement advanced by IEN and Honor the Earth continues to connect with broader, transnational networks of global indigenous activism, especially among communities increasingly critical of mining and other extractive industries. For instance, at the United States Social Forum (USSF) in Atlanta in the summer of 2007, which drew participants from throughout North and Latin America, IEN had a formidable presence under Goldtooth’s leadership. IEN leaders, along with other groups, including Diné-affiliated organizations such as Diné CARE, Doodá Desert Rock, the Black Mesa Water Coalition, and the Sage Council, introduced a critique of social justice and American imperialism into many of the “energy and environment” panels held during the USSF. IEN and other indigenous groups’ critique of the radical “left” visibly caught many of these progressive groups by surprise; it was evident that these activists’ politics of energy consumption and production had not considered the significance of historical differences and the dynamics of particular places; that is, their version of energy activism did not include an analysis of justice, history, and identity in the way that the framework of Energy Justice did. This friction proved productive. I witnessed several workshops and panels in which energy activists were challenged to historicize and emplace their ideal perspectives, considering the complexities of consumption practices in rural places where, for example, gasoline is required for food procurement, water is not piped into most homes, and the labor force for decades has depended upon vilified energy behemoths for everyday survival. Certainly, it is not a matter of indigenous activists having a more “authentic” energy politics – there are of course many, geographically and ethnically diverse advocates who considers aspects of justice, history, and identity. However, IEN and allies’ analysis visibly humanized, historicized, and emplaced
mainstream debates over carbon cap and trade, corporate social responsibility, and threats of peak oil. Similarly, at the United Nations Climate Change Conference in Copenhagen in December 2009, Earl Tulley of Diné CARE brought his understanding of energy justice and coal development on the Navajo Nation into conversations with indigenous Sámi leaders from northern Europe as well as other European activists and heads of state, translating the framework in yet another transnational context.

In sum, as indigenous energy activists travel within and produce new networks of association with other activists – through the work of organizations like Honor the Earth and the Indigenous Environmental Network, through benefit concerts, social forums, and global summits – the language of “justice” itself is increasingly spoken in terms of specific infrastructures. Wind turbines and solar photovoltaic panels, solar troughs, and hybrid wind-solar systems emerge as emblems of a different, more desirable future. They become products of the movement, even when they are not yet funded, installed, or operational, signaling a future that will “renewable” and “safe,” contrasting with an understanding of the past (and its technologies) as exhaustible and dangerous. And yet, as IEN, Honor the Earth, and other grassroots groups advance various proposals for energy justice in their communities, specific to their histories, we see that matters concerning culture are not so easily separated from energy activism, as some have imagined, leaving many questions unanswered for the movement. As Goldtooth reflects:

“Internal oppression raises its ugly head when you are trying to build a movement. We’re confronted with these layers – how difficult it is to build solidarity and hozhō, a different way of life. You have young people doing good organizing work, but if they don’t speak their language, then others will put them down … The mineral extraction industry is well organized. They can hold out two generations if they have to. Peabody will hang in there and wait until this generation passes on. They are ruthless. Phillips Dodge, and et cetera, these
companies have staked out plots of land all through this country and can wait twenty years. They are the enemy … the industrialized mindset. And we don’t have the language to talk about this. I don’t mean the language in terms of our language, but the language within the language.”

Whether or not energy justice and its technological solutions can provide the language needed for the deeper analytical, psychosocial, and cultural issues concerning Goldtooth remains to be seen.

III. Renewable Energy Entrepreneurs: New Social Activists?

“Trinkets and beads for Manhattan is not what we do.”
Charles A. Jimenez, entrepreneur

Indigenous business leaders are also making their mark as energy activists, though not through the methods of collective action usually associated with social movements, as in the other circuits of energy activism described above. At the International Indigenous Business and Entrepreneurship Conference held at the Sandia Pueblo Casino in June 2006 and again at the Fostering Indigenous Business and Entrepreneurship Alliances in the Americas Conference at Acoma Sky City Pueblo Casino in November 2007, nearly one-third of the papers and presentations addressed sustainable development. A significant portion of these presentations addressed renewable energy development on

113 Interview with Tom Goldtooth, by telephone, February 21, 2008.

114 Public remarks by Charles A. Jimenez, Foster & Jimenez Consultancy, Inc., presentation at the FIBEA Conference, Acoma Sky City Casino Hotel, Acoma Pueblo, November 8, 2007. Statement made in reference to the need for tribal ownership of power projects and, specifically, the coal-bed methane project his firm is developing for the Navajo Nation.
tribal lands. Promoting inter-tribal, trans-national entrepreneurial activities and business alliances through both tribal and non-tribal partnerships, these conferences are pluri-cultural, pluri-lingual events in which energy activism, and sustainability more broadly, are being shaped by the subject of the “social entrepreneur.” While the social entrepreneur may not be anything “new” and arguably is an individualistic manifestation of neoliberal, capitalist-oriented solutions to social problems, the subject position signifies a blurring of conventional boundaries between activism, business, markets, and communities. As Spinosa et al argue, entrepreneurship is a “skill of cultural innovation,” turning problems into opportunities which can in turn produce “radical social change” (Spinosa, Flores, and Dreyfus 1997, 34). It is their understanding of entrepreneurship that informs my understanding of the new energy entrepreneurs emerging in Indian Country and the Native Southwest, in particular.

In the course of my fieldwork, I encountered many individuals who embody this emerging identity of indigenous social entrepreneur as energy activist. Three people in particular, Deborah Tewa (Hopi), David Melton (Laguna), and Jackie Francke (Diné), all innovators in the area of solar photovoltaics, have each founded alternative energy businesses, delivering residential-scale arrays to rural Navajo (Hopi and other Pueblo) homes. Each deploy the hybrid knowledges of technoscientific expertise, business acumen, and their experiences as tribal members of specific Southwestern Native communities. The brief profiles of each business leader and her/his projects described

115 Their approach to entrepreneurship is grounded in phenomenology and pragmatism, arguing that entrepreneurship is an experience of change that transforms the actor him/herself, akin to a “sensitivity” rather than a theory of set procedures and principles. It is a practice approach, wherein they question “what enables an entrepreneur to hold onto a problem that others pass over and then to innovate on the basis of it” (Spinosa, Flores, and Dreyfus 1997, 41). I have written elsewhere, in collaboration with others, about social entrepreneurship and its potentials as a model of engaged scholarship (Dorothy Holland et al. 2010).
below illuminate these practices of alternative energy entrepreneurship as part of the emerging trajectory of energy activism on the Navajo Nation. However, while each focuses on solar and wind power technologies, their politics are not as we might expect; their projects not simply oppositional to fossil fuel extraction. In each case, “alternative” technologies have a situated meaning, relative to the landscapes and communities in which they are installed, dependent upon matters of scale, consumption, access to the grid, technical expertise, and financing. At the same time, however, these entrepreneurs’ abilities to create domestic comforts for rural families through infrastructure illuminates the micro-politics of self-determination and autonomy, a scaling down of the political vision of Navajo tribal leaders who sought self-determination through large-scale, export-oriented, extractive endeavors. Their projects and their analyses are not only suggestive of this new subjectivity emerging in tribal energy politics, but each offers a vantage point for understanding core matters of concern throughout energy activism, including sovereignty, independence, participation, and the impacts of electricity on everyday life.

A. NativeSUN

Seated in a plush armchair in the Sandia Casino in 2006 – its lights, gaming machines, and air-conditioning amounting to a site of major energy consumption in the hot Albuquerque suburbs – Debby Tewa told me that she still felt part of the grassroots movement for alternative energy – a social and environmental movement she is credited with helping to launch in Native communities (LaDuke 1999, 187-189). Her beginnings were as a solar technician working to bring electricity to her grandmother’s home on the high, remote mesas of the Hopi reservation (in northern Arizona). Historically, Hopi
tribal members resisted the extension of power lines to their homes for reasons of ceremonial interference (through atmospheric disruption) as well as out of a suspicion of the encroachment of utility companies onto their land. Off-grid systems without power lines offered a solution to harnessing power for residential electricity without the infrastructural disturbance or right of way for utilities into the villages. But as Tewa has increasingly become an expert working at the level of industry, she notes that her grassroots identity has become more complicated. With support from The Hopi Foundation and training from Solar Energy International, Tewa started the solar project NativeSUN in her home community of Hotevilla on the high mesas of the Hopi reservation over 20 years ago, using her skills as a solar electrician to install photovoltaic (PV) panels on more than 300 Hopi and Navajo homes. Families’ residential, off-grid systems were financed through a revolving loan program, so Tewa and the other NativeSUN technicians were also the bankers, growing the business by word of mouth because in such a “close community, when you’d see something on someone’s roof, you’d ask about it.” Local word of mouth marketing soon traveled into news articles and activist-research publications, circulating nationally and then globally, sending Tewa to Mexico, Switzerland, and Ecuador to share her business model; she notes that she even received a phone call from a man in Africa, inviting NativeSUN to establish a franchise operation in his city.

116 Interview with Deborah Tewa, Sandia Pueblo, Albuquerque, NM, June 20, 2006.

117 Tewa notes that Winona LaDuke was the first to write a story on her and NativeSUN, bringing her work to a wider audience.
She has gone from grassroots entrepreneur and electrical engineer to become Tribal Energy Liaison at the Arizona Department of Commerce, working with twenty-two Arizona Native Nations and federal agencies to develop renewable energy projects on tribal territories. In a board room at her office in Phoenix, Tewa tells me she still feels this tension in the scales of her work, because the grassroots renewable energy and the industry renewable energy are really “different animals, they come with different policies and rules ... different players ... different terminologies,” and are a matter of working with individuals versus working with tribal governments or other agencies.118 Her work is to translate between and among these players, using her technical expertise and knowledge of Hopi and Navajo life to convince Native Nations of the economic viability of installing off-grid or grid-tied systems in their communities. “It’s about choice,” she says. Though Native Nations are working at “a snail’s pace” compared to off the reservation, “they still are truly exercising their sovereignty by choosing what technology they want to put on their lands … because what sovereignty allows you to do, is to choose.” Linking sovereignty to technology, Tewa is distinguishing grid-tied from off-grid power – connection versus independence – as the choice that allows for different patterns of consumption and behavior. And unlike many renewable energy activists, Tewa doesn’t see it as an all-or-nothing choice between coal or solar. She offers examples, demonstrating how she thinks at the level of electrons:

“So let’s say, as an individual, I’m living out at Hopi and I’m grid-tied. I know this because I’ve been doing this for a while. And my electrons are coming from Cholla Power Plant, so that’s coal. But part of my house is also solar powered. So

118 Interview with Deborah Tewa, Phoenix, AZ, January 23, 2008.
it’s understanding how you want to use those electrons … Living on the reservations and hauling my laundry around every weekend wasn’t fun. So I don’t mind having grid power for those things.”

In Tewa’s analysis, solar power is not a discrete alternative energy source embodying oppositional (anti-fossil fuel) politics, so much as it offers the freedom of “choice” through the diversification of energy resources. Sovereignty, then, is not technology-specific, but is about being able to exercise that choice, to decide how electrons will flow into a geopolitical space and how they will be consumed. Importantly, her analysis de-centers the natural resource (coal, sun, wind, oil, natural gas) – the core concern of many energy activists – redefining the problem in terms of behavior: “We aren’t only addicted to oil, we’re addicted to electrons.”

**B. GeoTechnika, Inc. & Current-C**

Unlike Tewa, who works through the conduits of state power to reach out to Arizona Native Nations, Jackie Francke and her company, GeoTechnika, Inc., works directly with Navajo communities, bypassing the Window Rock bureaucracy (and its tribal utility authority), emphasizing the importance of community-based renewable energy technologies. Her approach to community-based power development involves popular education on solar PV by conducting workshops at chapter houses to make the case for off-grid residential solar systems. At the Klagetoh Chapter where she grew up, Francke is joined by her colleagues Sandy McCardell of Current-C Energy Systems and

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119 Ibid.
120 Ibid.
Deborah Tewa of NativeSUN and the Arizona Chamber of Commerce to offer a solar workshop to eleven community members, mostly women, managers of their household energy use. Following Tewa’s technical explanation of charge converter boxes, deep cycle batteries, amps, volts, and “phantom loads,” Francke makes an emotional appeal to the workshop participants, several of whom she recognizes as clan relatives: “If you are on this [solar], you are independent, you are in control. And when the power goes out, you can keep on going.” Your ability to keep going, she and Tewa describe, depends entirely on the “days of autonomy” your system can sustain; that is, on cloudy days, how much energy have your batteries stored to sustain your household load until the sun shines again?

Francke grew up following her father, a technician and Navajo translator with Tucson Gas & Electric, out to rural reservation communities where the company was hanging power lines. She recalls seeing the Navajo Coal Mine and its draglines, and dreamed of going away to school to come home (to Navajo) and work for the coalmines. After earning a degree in mining engineering, she worked in underground instrumentation and monitoring for potash and salt mines. Francke started her company in 1999 and was soon hired by the Council of Energy Resource Tribes (CERT) to do energy audits and energy efficiency training for Native Nations, becoming her company’s “way into renewables.” Through a CERT project on the Ohkay Owingeh Pueblo, she met Sandy McCardell who was doing commercial energy audits for the Nation, and the

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122 Interview with Jackie Francke, Sandy McCardell, and Nancy Chee, Klagetoh, AZ, October 3, 2007.
two women have partnered ever since on solar power education through community workshops like this one at Klagetoh. McCardell brought to their partnership her educational training in anthropology and business and international administration, along with her work experience in “international development, which it turns out is really not very different from what is being done here.”\(^{123}\)

The GeoTechnika / Current-C model is to “start with the community, not the technology,” requiring community resources analyses, skills-training and education that go beyond most technical approaches to solar PV installations. Jackie argues:

“It goes back to one of the things we really want to see happen, it’s not just the projects, but we want to see them build the community, capacity building, sustaining and self-sufficient. To say, we can do this ourselves instead of, Let’s get Jackie and Sandy to do it. We can do it ourselves. That’s the capacity building part of it. I’ve seen too many projects on Navajo that have been brought in and are gone in a couple of years. Because the experts come in, and the knowledge and technology leaves with them when the project is done, and then the project is gone in one or two years. That is one approach and concept we really want to change. We don’t want to come in and say, we’ll restore the panels, without letting the community know how to maintain them themselves. In order for the project to be sustainable, the people at the local level have to know how to take care of it, maintain it, keep it sustainable.”\(^{124}\)

To organize this kind of capacity, sustainability, and self-sufficiency requires Francke’s knowledge of the terrain, and of how communication works – and fails – at the Navajo chapter level. “Email is sporadic, phone calls are hard to be returned, that is just part of the environment. And since a lot of people live remotely, they can’t get to the chapter meetings, and so you really have to reach out to them. So when you come in and

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\(^{123}\) Ibid.

\(^{124}\) Ibid.
present at the chapter meeting, what you say gets told to the people who weren’t there.” And often “what you say” is misunderstood or mistranslated, depending on the language (Navajo or English) being employed, and depending on the number of translations the information travels through before its utterance to the grandmother whose solar PV system is failing and who has no resources for the repair.

Unlike her colleague Tewa’s reflection that “sovereignty allows you to choose,” Francke and McCardell emphasize the lack of choice for people in the Klagetoh Chapter and other rural areas of the Navajo reservation. People in these locales, in their words, “have nothing, or possibly they have alternative energy,” so the decision to install a solar system is not about making an environmental “choice” (as many energy activists stress), but about choosing electrification (light and possibly heat) over no electrification (darkness and cold). Environmental politics in fact have little place in the decision-making process for many rural households grappling with their energy needs; it is more a matter seeing the light on inside a neighbor’s house at night, as Francke describes, literally seeing that light is possible, and wanting to be able to do that, too. “We use energy as the pathway to create self-sufficiency,” says Francke.

C. Sacred Power Corporation

In the Acoma Sky City Casino Hotel in 2007, where presenters explored indigenous entrepreneurship through projects ranging from commercial caribou harvesting in Nunavut (Inuit) territory125 to telecommunications and e-commerce training

125 This is the project of Aldene Meis Mason, Doctoral Candidate at the University of Regina, Canada. Presentation by Mason at the FIBEA Conference, Acoma Sky City Casino Hotel, Acoma Pueblo, November 8, 2007.
for Navajo artisans\textsuperscript{126}, entrepreneurship was broadly theorized as “making tacit knowledge explicit so that it becomes competitive advantage.”\textsuperscript{127} David Melton, CEO of the Sacred Power Corporation, drew upon his own “tacit knowledge” of growing up on the Laguna Pueblo, where, starting in the 1950’s, the Bureau of Indian Affairs allowed the Atomic Energy Commission to operate the Jackpile uranium mine, becoming the largest open pit uranium mine in the world. Melton juxtaposes this life experience with the renewable energy corporation he founded in the late 1990’s – a design and manufacturer of various types of solar power systems. Primarily working on government contracts, Melton’s Sacred Power Corporation has produced off-grid and grid-tied systems, including large-scale projects like solar carports at NASA in Houston, solar heating for indoor pools in public schools, as well as smaller-scale infrastructures such as off-grid water pumping and residential solar photovoltaic (PV) arrays for Navajo households. Melton shows a power point photo of a PV system installed on a log hogan on the Navajo reservation. “We’ve made grown men cry,” Melton says. “To give power, electricity to their families, which they haven’t been able to provide themselves, then you see what having power can mean.”\textsuperscript{128}

\textsuperscript{126} This is the project of Janice Badal and Laura Franklin, Sacred Wind Communications. Presentation by Badal and Franklin, FIBEA Conference, Acoma Sky City Casino Hotel, Acoma Pueblo, November 8, 2007. For more information on the project see www.navajoarts-crafts.com.

\textsuperscript{127} Dr. Rosanna Alvarez-Diemer, presentation on “action-based” approaches to entrepreneurial research, FIBEA Conference, Acoma Sky City Casino Hotel, Acoma Pueblo, November 8, 2007.

\textsuperscript{128} David Melton, President, Sacred Power Corporation, presentation at FIBEA Conference, Acoma Sky City Casino Hotel, Acoma Pueblo, November 8, 2007.
The multiple valences of power circulating in this comment demand a pause. Melton’s comment demonstrates the complex, gendered nature of power often at work in these energy debates. The power to “make grown men cry” suggests that a particular residential technology is experienced as a reversal of impotence. Transporting men from being unable to being able to provide for their families, a PV system is imbued with the power to bring dignity to men at the same time it brings electricity to their households. This equation of electricity as dignity at the level of household consumption is a simile for understanding the gendered nature of power within the domestic space of the household. The man “cries” when the solar PV system brings power, perhaps out of a sense of personal failure (he was “unable” to do it alone) and a sense of joy or relief (dignity to his family has been restored). The inability “to give power” also reinforces the widely held notion that men themselves are sources of power for women and families (in this heterocentric imaginary family), and therefore without a man to bring power home, the women and children would remain in the dark. Yet, woman are also bringing power home. Energy entrepreneurs like Debby Tewa, Jackie Francke and Sandy McCardell demonstrate a new movement of women’s leadership in the energy development sector, challenging stereotypes of the type of energy work women can do. While Tewa notes “how hard it was” to often be the only woman in a training program or on a work site full of male engineers, she also recognizes the profound change in the industry sector, at the research labs, and even among new cohorts of trainees and interns. Furthermore, she and Jackie both note, on separate occasions, how frequently middle-aged and elderly women are their pupils, because as managers of the home, women are most involved in understanding the operation of new power systems.
Nearly a year later at his office in the Indian Pueblo Cultural Center in Albuquerque, Melton recalls how he built his career as a solar power entrepreneur.\(^{129}\) He began by working for the uranium mines at Laguna, an odd homecoming of sorts, as he had grown up in Rockville, Maryland, the son of a man from Galax, Virginia and a woman from Pojate, Laguna. He had many aunts, uncles and cousins working at the mine – “it was a good industrial job” in the late 1960’s – and although his father thought he’d only last six months, Melton wound up working in Laguna uranium mining operations for over ten years. In that time, he weathered the changes of ownership, as the mine was sold to various companies until uranium’s boom became an eventual bust, following the Three Mile Island spill in 1979. “Four years later, this whole region was a ghost town.” Though most people left the reservation to find employment in cities, he stayed and found work in the sheet metals and cables industry, eventually learning about photovoltaics (PV) through his company’s work with Sandia National Labs.

Melton’s experience typifies the “opportunity” he argues is the key to entrepreneurial success. When Sandia received a Department of Energy Tribal Energy Grant, Melton was hired to run the feasibility study for a PV module manufacturing plant. He rented an office in the Indian Pueblo Cultural Center and eventually founded Sacred Power Corporation in 2002. His first project as CEO of his own corporation was remarkably local, but with much broader consequences: winning a bid for nearly $100,000 from the New Mexico energy office, Sacred Power constructed a grid-tied solar carport adjacent to the Cultural Center, becoming the largest PV array at that time in the state, generating 25 megawatt-hours per year, approximately 5% of the building’s

\(^{129}\) Interview with David Melton, Albuquerque, NM, July 3, 2008.
electrical usage. Bill Richardson of New Mexico was Energy Secretary under President Bill Clinton at that time and sent a representative to speak at the ribbon-cutting ceremony, joining Melton’s in-laws from the Jemez Pueblo who offered the blessing and friends from the Zia Pueblo who granted permission for their Zia symbol to be used as the central image in the carport’s design. As members of the All Indian Pueblo Council (APC) – a political coalition dating back nearly 400 years, to before the Pueblo Revolt of 1680 – the nineteen Pueblos of New Mexico each own an equal share of the solar carport.

Working on 25 different American Indian reservations across the U.S., Melton’s corporation produces diverse systems – grid-tied, off-grid, straight solar PV and PV hybrids – affecting not only how homes and offices are powered, but improving the safety and well-being of communities. Melton sees the potential for solar PV to create social change, beyond the built environment. For instance, one contract is with the BIA and its office of law enforcement. “We are saying that renewable energy is helping stop domestic violence. Because with the new digital radios we are powering, the police officer can now hear the transmission in a higher mountain range or lower valley range and respond. We know it’s a stretch to say that, but in reality, it’s true.” On the Navajo Nation, where Sacred Power Corporation has been contracted by the Nation (with USDA Rural Electrification funding) to install residential PV on rural homes, Melton sees his social mission extending into the challenges of family life:

“We also look at the study habits of the kids. You have these kids trying to do their homework, holding a flashlight in one hand and writing with the other, or

130 This arrangement is through a net metering system established by the state of New Mexico, which allows grid-tied systems to produce power for local consumption as well as export onto the grid.
they are writing next to a kerosene lantern, and a lot of houses have burned down from fallen lantern fires. Their performance goes up tenfold just by having it where they can read.”

To affect such change, Melton works directly with local Navajo communities – through the chapters – rather than with tribal agencies in the capitol of Window Rock. This direct approach means he can negotiate with local decision-makers and families directly, considering local ecologies and weather patterns to determine whether systems should be solar-wind hybrids (like the 80-100 systems in the Cameron Chapter area) or the straight solar PV systems installed in the Ojo Encino and Torrean areas. He presents this approach as “not dealing with Window Rock at all,” emphasizing the need for local ownership and participation in projects, drawing upon the proposed Desert Rock coal plant as an example of what he does not want his business to become:

“We always say, you have to have win-win-win. Everybody has to be in agreement, everybody has to feel satisfied or they’ll pull the whole thing down … Just like Desert Rock. You’ve got Navajo Nation, you’ve got Sithe Global [the developer] – both wins – but the people that live there and the local chapters – lose.”

The “win-win-win” he is interested in creating through solar PV would also create conditions of self-determination – not just for the Nation as a sovereign political entity, but in the everyday lives of families. As our conversation draws to a close, he considers independence on this smaller scale:

131 Interview with David Melton, Albuquerque, NM, July 3, 2008.
132 Ibid.
“At the individual level, everybody wants to be able to be self-sufficient. Our economy, our capitalist society is about us all being dependent on one another. So you do one little piece of the puzzle and you are dependent on everyone else doing their piece for the whole system to work. But chunks of the puzzle start to collapse. Like the food system. None of us grow our own food or even access to farmland, wait 6 months for the food to come in, depend on our livestock, or water delivery or access to water. This [solar PV] gives back a little bit of that self-assurance that I can take care of myself through PV on my own home. Like the Navajo, once they get power – If you have water and you can pump water with solar and you have power, you can have a satellite dish and run your business, grow your own crops, feed your livestock, and have six eggs a day with 2-3 chickens and live anywhere.”

This vivid image of self-sufficiency, of local production and consumption of energy resources (including food, importantly), is of course not at the scale of Sacred Power Corporation’s larger government contracts. However, Melton sees the politics of his mission in energy development as promoting – and literally powering – these everyday realities. Kids able to do homework without kerosene, cops able to respond more quickly to domestic violence calls – these are the visions of social change incorporated into solar hardware and transmitted through kilowatt-hours.

Conclusion

However, the community- and residential-scale solar and hybrid wind-solar systems installed on the Navajo Nation by entrepreneurs like Tewa, Francke/McCardell and Melton have not replaced the Nation’s reliance on fossil fuel energy resources as its prevailing pathway to create self-sufficiency. Even with the Nation’s mandate to the Navajo Tribal Utility Authority (NTUA) to install residential solar PV on reservation

133 Ibid.
homes (like Adella’s), these systems operate in isolation, decentralized, small-scale, and individual, leaving intact the Nation’s overall investment in mineral extraction. Furthermore, the Nation’s recent pursuit of large-scale renewable projects like the proposed wind farm for the Cameron Chapter or at Big Boquillas Ranch, remain on the drawing board, financially and politically uncertain. This slow-moving, unpredictable development raises for many activists the question of the benefits of private enterprise in renewable energy development versus government projects, especially given the shifting winds of federal funding behind tribal projects and pending legislation that would grant Native Nations access to federal tax incentives for renewable energy development (such as the Production Tax Credit).

Many wonder, with charismatic energy entrepreneurs like Tewa, Melton, and Francke, could the Navajo Nation not become a model for off-grid, renewable energy systems, powering homes at the community scale? Activists and tribal leaders debate this model, recognizing, however, that it leaves the larger problem of tribal revenue untouched. Decentralized power generation – local production for local consumption – does not answer the need for tribal economic development, when such development is defined as increasing tribal revenue. Community leaders and chapter officials have pursued wind farm proposals and plans for concentrated solar power technology on larger scales in efforts to demonstrate the potential for the Nation to turn toward renewable energy development for export, mirroring the export-based model of energy development that has endured while switching out the technology itself.

In this sense, renewable energy technology as a true “alternative” remains an open question and a matter of scale. Instead, wind and solar are emerging as complementary
technologies in a “diverse portfolio” of tribal energy resources, which still includes major coal operations – especially the proposed Desert Rock Energy Project. Despite energy activists’ calls for wind and solar to replace coal (or in some cases, to at least equally complement coal), the economic model of the Nation follows federal energy policy, in cautiously advancing wind and solar while maintaining a reliance on non-renewable, yet temporarily bountiful carbon resources. And while tribal leadership has officially demonized uranium mining, coal continues to be mined, albeit in an increasingly politicized domain of natural resource management. Since the Navajo Nation has no energy policy of its own, as noted above, decisions on specific energy projects are made on a case by case basis, debated on the floor of the Council Chambers, in chapter house workshops, and in direct actions in the streets of Window Rock, pursued as singularities without any long-range, strategic policy plan.

In this climate, the proposed Desert Rock Energy Project has become the most politicized energy development debate on the Navajo Nation in the new millennium; it is a spectral problematic, galvanizing the energies of activists, tribal leaders, media, artists and federal agencies. The next chapter sketches the contours of this proposed coal plant, emerging into this existing network of energy histories and energy activists. Its full significance is yet to be seen, but as a problematic possibility, it becomes a mediator for impassioned discussions on sovereignty, knowledge, identity, participation, and the future in the Navajo Nation’s ever changing, and emerging, landscapes of power.
Chapter III: The Emergence of Desert Rock

The extractive legacies, histories, and politics of energy on the Navajo Nation are background for understanding why the emergence of the Desert Rock Energy Project (“Desert Rock”) is pivotal for everyone in the Four Corners region, with potential consequences reaching much farther afield. Enduring histories of energy development and energy activism as well as more recent projects to redefine Diné identity and knowledge production yield conditions in which such a controversial development proposal must reckon with a wide range of opponents and advocates. Desert Rock is a 1500-megawatt coal-fired power plant proposed – though not (yet?) constructed – for a remote region in the Eastern Agency of the Navajo Nation, just south of Farmington and Shiprock, New Mexico. Part of a complex legacy of energy development on and by the Navajo Nation and enmeshed in networks of energy activism involving NGO’s, tribal leaders, and energy entrepreneurs (as discussed in the previous chapters), the prospect of Desert Rock is producing new landscapes of power on the Navajo Nation. That is, the future possibility of this project generates effects in the present, impacting the way energy development is being understood, debated, and pursued on the Navajo Nation.

The story of this proposed coal-fired power plant reads the pulse of contemporary energy development on the Navajo Nation, becoming a defining issue for many Navajo environmental groups, tribal leaders and residents of the proposed development site (Long 2007). Therefore, Desert Rock claims a central place in this dissertation not
because it is the only recent controversial development project (the Nation’s first casino, a high-end resort in Monument Valley, and a Wal-Mart proposed for Chinle have also evoked considerable fervor), but because it conjures longstanding political ecological and political economic questions of who really benefits from intensive mineral extraction on the reservation. Furthermore, Desert Rock emerges in a conjuncture when the future of the Diné landscape is being re-thought and re-made through a significant shift in the Nation’s political climate. For these reasons, I approach Desert Rock not as a case study, but as a centrality – a core object defining politics and subjects on the Navajo Nation today.

I argue that Desert Rock is an emergent object, forming and transforming the present, even while its future remains contested and uncertain. The work is does – as a present absence – is productive, generating different landscapes of power in an ongoing, enduring struggle over energy resources and land management, knowledge production, appropriate technology, identity, and sacred places on the Navajo Nation. Situating the story of this controversial power plant in a conceptual framework of emergence, my descriptive and analytic lens zooms in, contributing to the anthropology of energy through an ethnographic exploration of the controversy surrounding this passionately contested proposal for large-scale, export-driven power production. I find this attention to emergence to be particularly suitable for work in anthropology, given ethnography’s attention to processes of emergence, non-causality, shifting dynamics of human (and other-than-human) interactions and their unpredictable outcomes. The anthropological sensibility is thus already attuned to emergence and, in this sense, I am not naming anything new so much as I am underscoring some of what is already going on in
anthropology and ethnography, and trying to push it towards more self-conscious, cogent
articulations. Indeed, the broad shift toward practice theory within anthropology has
ushered in the importance of emergence.

This chapter introduces Desert Rock in some of its complexity, exploring the
substantive and theoretical contours of what might at first glance seem to be a mundane
technology of modernity. The Desert Rock story I tell (which, I am well aware, is one of
many possible stories already being told) is a story about a spectral object and its
cultural-political effects. I approach the proposed power plant, and the actors it
assembles, as the axis for understanding how emergent objects have unpredictable, lived,
material effects, long before the first brick is ever laid. Specifically, I will discuss some
of the contours of this emergent object, which itself disregards conventional, bounded
notions of place, identity, and knowledge. For instance, although the primary
infrastructure is slated for tribal land in northwestern New Mexico, Desert Rock is
fundamentally a trans-local, traveling object, with capillaries of power lines, processing
facilities, noxious emissions, financial interdependencies, federal regulatory paperwork,
and diverse spokespeople spreading out in all directions. Likewise, though it is a project
both proposed by and hotly contested by Diné citizens, it engages other Native as well as
non-Native residents of the greater Four Corners region and travels into pan-indigenous
(and other) networks through its appearance the United Nations, the United States Social
Forum, the Copenhagen Climate Change Summit, and the Bureau of Indian Affairs.
Finally, it transgresses conventional knowledge boundaries by mobilizing not only the
usual suspects involved in energy development – engineers, financiers, managers,
bureaucrats, and environmental activists – but also by mobilizing entrepreneurs, artists, and elders.

As noted, Desert Rock takes the pulse of contemporary energy development on the Navajo Nation, speaking to the broader postcolonial conditions of indigenous experience today, with potential ramifications for other Native Nations’ economic development ventures, tribal and federal environmental and energy policies, private equity investment in coal development, ecological and atmospheric changes in the greater Colorado Plateau region, and broader, global understandings of indigeneity. A full discussion of the extent of these possible ramifications exceeds the scope of this chapter, though I find it notable that many people I encountered during my fieldwork described Desert Rock as “a microcosm of global energy debates,” frequently invoking recent growth in China and India as evidence of Desert Rock’s urgency and importance.

Regarding the final point on global understandings of indigeneity, however, a brief elaboration is necessary to recall the broader tropes of identity being deployed – and reworked – in this controversy. The North American “myth-making machine” (Chaat Smith 2009) has successfully produced enduring images of Native peoples which, though they change as a reflection of the dominant culture’s desires and fears, persist in pitting “the Indian” (i.e., the “savage” – be he “noble” or bloodthirsty) against technology (i.e.,

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134 This classic trope of indigeneity and environmentalism must be geographically, culturally and historically situated. As others have argued (de la Cadena and Starn 2007; Fortun, Fortun, and Rubenstein 2010) indigeneity is a concept that travels, circulates, and is produced in different circumstances globally. In many ways, the trope of the American Indians as “closer” to nature is particular to the American context. For a counter-example, “the indigenous” in China – as a recognizable category of politicized identity – are a product of the last decade or two, and are the same Chinese population formerly associated with the destruction of the environment and rural landscape (Hathaway 2010).
modernity). These have become so prevalent that they are “cartoon images that all of us know and most of us believe” (Chaat Smith 2009, 20). Since the 1970’s and the coterminal rise of New Age spirituality and contemporary environmentalism, Indians – as cartoons – have been positioned (sometimes strategically, sometimes mechanically) as fundamentally opposed to technology and science – even when the historical record demonstrates otherwise. As Comanche cultural critic Paul Chaat Smith makes poignantly clear, America doesn’t know what to do with Indian revolutionaries who don’t know how to slaughter livestock (a reference to the Wounded Knee occupation and federal stand off of 1973), or with the knowledge that Geronimo, the famous, early 20th century Apache leader, was the proud owner of a Cadillac. This categorical, stereotypical rejection of technology is, of course, reinforced by the modern equation of indigeneity with spiritualism and environmentalism, which has deep roots of meaning in Euro-American theories from Rousseau to the 19th century Romantics that collapsed these two values into one another and established them, together, as quintessentially anti-industrial.

Such tropic oppositions, sustained in a multitude of discourses (which turn the crank of the “myth-making machine” Smith writes against), are rooted in Cartesian dualisms and persist in positioning Native peoples in one of two, polarized stances: In the first instance, Native peoples are positioned as “the first environmentalists,” ecological stewards of a threatened Earth who are “naturally” anti-technology and anti-development. This naturalization of a foundational colonial trope offers Native peoples only two possible responses: they are either tragic victims or revolutionary resisters of technoscientific “progress”. Such is the deep reservoir of meaning (mis)informing many environmental movements – as long as the Native subject remains in the abstract. In the
second instance, contradicting the first, Native peoples are positioned as technological *bricoleurs*, adapting and incorporating technoscientific gadgets, projects, and discourses into their everyday lives, but in a way that only further exoticizes them, reinforcing difference-as-otherness within the enduring modern/non-modern imaginary. Consider, for instance, the all-too-common photographs of “global health” initiatives in “Third World” countries (the photographs now constituting a genre in themselves) depicting barefoot women in “Native dress,” walking on paved city sidewalks, chatting on mobile phones. This relationship to technology confirms her authenticity through juxtaposition, erasing any actual personhood. These two contradictory, polarized options for Native peoples are, of course, no real options at all, but are enduring colonialisms in which the fundamental conceptual chasm between Western categories of “the Native” and “technoscience” are seen as intrinsically incompatible.\(^{135}\) I return to this theme of how the “cartoon images” of spiritualism and environmentalism are being both deployed and reworked through Desert Rock, in the final chapter of the dissertation.

Although debates continue over re-opening the coal mining complex on sacred Black Mesa in the Western Agency of the Navajo Nation and part of Hopi lands (which operated on a lease with Peabody Coal Company from 1969 until 2005), and pressures mount to re-open uranium mines in the Eastern Agency, the prospect of Desert Rock remains the centrally contested new energy development project slated for tribal land. It has mobilized a broad, local and trans-local base of tribal members, elected officials,

\(^{135}\) In addition to being influenced here by Paul Chaat Smith’s writings, speeches, and my personal conversations with him when he visited Orin Starn’s and Walter Mignolo’s seminars at Duke University in 2005, I am informed here by the groundbreaking historical work of Philip Deloria in his work on the American fascination with securing American identities from the Boston Tea Party to Boy Scouts by “playing Indian,” as well as how technology in particular, makes Indians appear “unexpected” in particular, “modern” places (Deloria 1998; Deloria 2004).
NGO’s, financiers, scientists, engineers, artists, elders, and media figures, with diverse investments in whether or not it is constructed. The debate over its uncertain future has generated a space of dialogue on tribal energy development that conjures the Nation’s legacies of extraction, at the same time it intersects with, and often promotes, discussion over wind and solar projects at multiple scales. In this way, Desert Rock exerts a more creative, culturally significant, and complicated force in the world than simply as a matter of economics versus the environment, as the controversy has generally been construed by the widespread media attention it has garnered. Such reductive descriptions of this complex proposal, its effects and potentialities, break down when we begin to glimpse the deeper cultural and political stakes for those invested in its – and thus their own – futures.

The chapter proceeds in two parts. First, I will describe what Desert Rock is (to become), materially and substantively, sketching the profile of this proposed technology through its technical, financial, legal, and managerial dimensions. This section offers, as well, a glimpse into some of the “connected actions” of Desert Rock that make it so controversial, as well as a brief summary of some of the economic and fiscal considerations impacting the proposal. Detailed description of an emergent object is a complicated undertaking, given that so much of what makes it exist involves discourse of what it not, or should not be. Second, I will discuss my analytic approach to energy projects, by situating the concept of emergence in relation to the problem of Desert Rock. This approach takes emergence theory as the ground for understanding how a proposed object like Desert Rock produces transformative effects in the present despite its future uncertainty. I argue that the very possibility of Desert Rock is generative, producing new
and changing landscapes of power on the Navajo Nation, recalling the triple valences of power underlying this dissertation.\textsuperscript{136} The landscapes being produced through Desert Rock are visible in several themes, around which the following chapters are organized, including: deployments and negotiations of sovereignty; cultural artifacts positing different landscapes and subjects; public engagements with science and expertise; and identities and politics of energy activism, themselves emergent and thus not fully knowable in the present.

At the center of a maelstrom of activism, connecting the proposed Desert Rock site in rural New Mexico with boardrooms in Manhattan, newspapers in Los Angeles, and streets of Copenhagen, Desert Rock raises difficult and urgent questions about how we go about imagining and literally building our common futures. In other words, Desert Rock is forming and transforming a political space of action, knowledge, and cultural production on the Navajo Nation and in “crowded fields” of research and action in which it is enmeshed, and which it is also actively producing. Tracing the events, artifacts, and encounters associated with this particularly salient, controversial, emergent object enables a provisional reading of this complexity, in hopes that my own perspective (informed by activism, ethnography, and situated difference) might generate the description and analysis necessary to bolster a critical energy politics emerging on the Navajo Nation, in other energy-rich indigenous territories, and elsewhere.

\textsuperscript{136} The triple valences of power at work in this dissertation are the mineral/material; the socio-cultural/political; and the sacred/cosmological. This triad is elaborated in the Introduction.
I. Defining the Action: The Technics of Desert Rock

“Part of defining the action is to identify all connected actions.”

National Environmental Policy Act\textsuperscript{137}

A. “Empowering Progress”

The Desert Rock Energy Project is a proposed 1500-megawatt, pulverized coal-fired power plant that would be built on 592 acre (with a footprint of 149 acres) on the northeastern edge of the Navajo Nation, a border zone thirty miles southwest of Farmington, New Mexico. It would add to an existing energy landscape of oil and gas wells and two existing coal-fired power plants in the nearby vicinity, the Four Corners Power Plant (also on Navajo Nation territory) and the San Juan Generating Station, just west of Farmington. The Desert Rock complex would require over 4,000 acres of new facilities, transmission lines, and roads to support the coal mining and processing operations and export of power; a veritable network of “connected actions” that are often eclipsed by exclusive focus on the proposed power plant itself. Perhaps the most controversial connection action, to ensure Desert Rock’s coal supply would require an expansion of the existing Navajo Coal Mine, a surface mine in operation since 1963 producing 8.5 million tons of coal annually for the nearby Four Corners Power Plant. The sheer abundance of easily accessible coal in the San Juan basin, extracted at the Navajo Coal Mine’s multi-dragline surface mine, has been isolated as one of the drivers behind developing a third power plant. The tribal government proposed Desert Rock as a

machine that would fuel tribal economic development and become a “showcase” for state of the art, “clean coal” technology, thereby strengthening tribal sovereignty through revenue and recognition.

However, the Navajo Nation lacks the capital to build such a project on its own. Therefore, in 1999 – after nearly twenty years of discussion among tribal government leaders – the Nation invited proposals from energy development corporations to undertake a new coal fired power plant on Navajo Nation land. Steag Corporation of Germany won the bid, undeterred by the “stigma of doing business on Indian land.” By 2003 there was a development agreement with the Navajo Nation and in 2004, Steag sold the project to Sithe Global Power (Sithe), a transnational energy developer headquartered in New York City, specializing in large-scale energy development projects ranging from coal to hydro. In 2005, Sithe boasted over 50 power plants in nine countries worldwide with a capital investment in excess of $5 billion. Sithe’s corporate mission, as stated, blends the discourse of corporate social responsibility, ecological sustainability, and economic development to create a vision of “empowering progress” in “places where success has proven challenging,” specifically, with coal power in New Mexico, Nevada, Pennsylvania and Georgia in the U.S.; hydro power in Guyana; natural gas in Italy; coal on the Bataan Peninsula in the Philippines; and hydro in Uganda as well as biofuels in

138 This discussion involved, according to one tribal agency director, the exploration of a power plant at Paragon Ranch in the Eastern Agency as well as the exploration of transporting coal from the existing Navajo Mine across the San Juan River to the San Juan Generation Station (power plant) just west of Farmington, NM. Neither of these proposals proved viable, which opened the way for the Navajo Transmission Project and Desert Rock.

139 Interview with Stephen C. Begay, Window Rock, AZ, October 15, 2008.

“several African countries.”\(^{141}\) Although Sithe’s model of “empowering progress” reflects what is now a standard triple bottom line approach to development\(^{142}\), it capitalizes on making its global connections more “local.” Evidence of this is available on the company’s webpage, where a photograph shows Desert Rock Project Manager Dirk Straussfeld walking beneath a Navajo ceremonial arbor in front of a row of onlookers, wearing a cowboy hat and turquoise necklace, followed by Navajo women wearing customary long, ruffled skirts and velvet shirts.\(^{143}\)

Desert Rock thus became a joint venture between Sithe and the Navajo Nation, incorporated in the Desert Rock Energy Project, LLC, with the Diné Power Authority (DPA) representing the Navajo Nation’s interests. With authority to work within Navajo Nation boundaries, negotiating the overlapping and complex land statuses that exist on the reservation (trust lands, fee lands, allotment lands, federally leased lands, and new acquisitions), DPA has “a quasi-governmental role at the community level as well as private sector or a business role.”\(^{144}\) The duality – or ambiguity – of DPA’s role distinguishes it from the Navajo Tribal Utility Authority (NTUA), which handles the retail and distribution of power (including solar systems) and operates transmission lines up to 115 kilovolts (Kv). DPA operates larger-scale infrastructure, including transmission lines above 115 Kv and power generation projects like Desert Rock.

\(^{141}\) http://www.sitheglobal.com

\(^{142}\) The “triple bottom line” approach to development is a model of development reflecting a neoliberal framework for social change. It identifies the economic, the environmental, and the social well-being of communities as three, core targeted areas capable of improvement through private sector ventures. For a thorough summary and critique of the triple-bottom line model, see (Black 2006).

\(^{143}\) http://www.sitheglobal.com/team/straussfeld.cfm

\(^{144}\) Interview with Stephen C. Begay, Window Rock, AZ, October 15, 2008.
This joint venture corporate relationship enables the Navajo Nation to buy into Desert Rock, once built, at 25% ownership – marking a significant shift from the land lease model of coal projects established on the reservation in the 1960’s – with the possibility of increasing ownership to 49%. Yet, as of November 2007, the Navajo Nation had not yet bought into the project, leaving all of the financial liability with Sithe, should the project fail to materialize. At the time of this writing, the federally-mandated air permit (“PSD”), final Environmental Impact Statement (EIS), and rights of way permits have still not been secured to enable the developers to break ground. The precarity of the project places the Navajo Nation Council in a more reticent position to actualize their potential for ownership. While DPA handles internal political processes and permits – land leases, tax agreements, water agreements, negotiating with grazing permit holders and navigating the various agencies of the Navajo Nation involved in the project – Sithe secures financing and handles the required federal permits (described further below).

Financing of Desert Rock, originally estimated at $3.4 billion, comes primarily from the global investment firm, the Blackstone Group, which manages $100 billion in assets through seventeen offices worldwide. In 2005, Blackstone’s affiliate, Blackstone Capital Partners, purchased 80% ownership of Sithe from Reservoir Capital. Headquartered just a few blocks down Park Avenue from the offices of Sithe Global, Blackstone’s oversight of Desert Rock is practiced through a network of corporate executives, extending from Sithe’s Chief Executive Office in Manhattan to the Vice President of Desert Rock Energy Project, based in Farmington, New Mexico. Although joined in this corporate partnership, Sithe’s responsibilities lay primarily with its stock
shareholders, while DPA is accountable primarily to Navajo tribal members and the tribal government. These divergent, even contradictory accountabilities – the former being ultimately financial and global, the latter ultimately political and local – generated ongoing tension in the project’s public relations.

As stated in the Draft Environmental Impact Statement (Draft EIS) for Desert Rock, the official “purpose and need” of the power plant is fourfold: (1) to support economic development on the Navajo Nation by providing long-term employment from the development of Navajo natural resources; (2) to use Navajo coal to generate electricity; (3) to help meet the growing demand for up to 1500 megawatts of electrical power in the growing urban Southwest; and (4) to provide fuel diversity and a more economically stable and predictable power supply to Southwest utilities.\(^\text{145}\) The plant itself would consist of two 750-megawatt, ultra-supercritical boiler units, low nitrous dioxide burners, a selective catalytic reduction system, fluidized gas de-sulfurization units, wet scrubbers and a wet stack for mercury control – hardware for “clean coal,” according to the project’s developers. However, as critics are quick to note, this is “unproven technology” and cannot reliably mitigate carbon dioxide emissions, with coal fired power plants continuing to generate 45% of all carbon emissions in the United States.

To convert coal into power requires a vast expansion of the built environment, from power lines, to roads, to the source of the coal, itself. This complex project, as it turns out, would involve far more than Desert Rock’s boilers, scrubbers, stacks and other units to be functional. In addition to water infrastructure, Desert Rock’s supporting

\(^\text{145}\) Ibid.
facilities will also include “500 kilovolt (kV) transmission lines, other upgrades and ancillary facilities required for the production and transmission of electricity, and new access roads.”¹⁴⁶ As a “mine-to-mouth” power plant, there would be no need transmission lines to get the coal to the plant (as was the case with Black Mesa transporting coal by water slurry line to a generating station in Laughlin, Nevada).

Importantly, however, the operation of Desert Rock would also require a 25 square-mile expansion of the existing Navajo Coal Mine, a sub-bituminous coal mine owned by BHP Billiton, an Australian transnational coal company. These expanded mining operations would provide Desert Rock with 6.25 million tons of coal per year, for fifty years of the plant’s anticipated operation. The mine expansion would also require additional infrastructure, such as conveyers and new processing facilities, necessitating the relocating of several dozen Navajo families and individuals, like Alice Gilmore, whose homesteads and grazing lands lie on the surface of these rich coal deposits in “Area Four North.” In the lexicon of environmental policy, all of these “connected actions” are part of what makes Desert Rock so complex, much larger, far-reaching and unpredictable than the power plant alone, although the power plant is isolated as the sole object under investigation in the Draft EIS.

B. “That was Navajo Power”

As designed, Desert Rock would produce electricity for the regional grid, exporting power to utilities off of the reservation, likely feeding air conditioners in

¹⁴⁶ Ibid.
Phoenix and Tucson, and lighting up Las Vegas. It is a “merchant” power plant, with no confirmed purchasers of its power; however, at the time of this writing, there are no existing contracts with regional utilities. In order to sell this power, Desert Rock has to be able to move this power; the power plant would be itself be impotent without an infrastructure of transmission lines to transport electricity to the largest machine in the world: the United States electrical grid. The Navajo Transmission Project (NTP) would supply the lines necessary for this movement, serving as the integral hardware to enable Desert Rock’s potential. The histories and technics of Desert Rock and the NTP are thus entangled – and although the NTP has received less public scrutiny, as a proposal, it predates Desert Rock. Several people acknowledge that plans for the NTP had been well underway long before Desert Rock was formally proposed, despite policymakers’ treatment of these infrastructures as separate and distinct projects, requiring separate Environmental Impact Assessments and separate legislative review processes. The Director of the Navajo Nation Natural Resources Department explained,

“There was, quite frankly, a lack of the ability to transmit power. So the Navajo transmission power line [NTP] was an answer to help make that happen. But as they got more and more into the project, it was a hard project to sell on its own. So then DPA began to look at the possibilities of – there had been discussion of a power plant, and maybe we need to take a look at that.”

Or, as a retired Tribal Council member recalled, the discussion of transmitting Navajo power slipped quickly from NTP to Desert Rock:

147 Interview with Arvin Trujillo, Window Rock, AZ, October 13, 2008.
“During my tenure on the Council from 1991 to 1997, there was a proposal to run a power line from Four Corners [Power Plant] all the way down to Phoenix by the Diné Power Authority. I supported that, because Four Corners, New Mexico and Arizona Public Service [regional power plants] had excess power that could be put somewhere else. And the whole idea of putting that line in -- that was Navajo power. We can sell that thing by placing a line all the way across the Rez and clear down that way. That was the whole idea. Then, this Desert Rock issue came up and they just simply jumped on it. But the whole idea was to sell the excess from Four Corners – that plant already existed and they had excess supplies of power and they wanted to sell that. And that’s how Diné Power Authority was born, and I supported it with money and everything. But what happens now? They go over here, trying to get power out of Desert Rock” (my emphasis).148

Thus, NTP made Desert Rock possible, and in turn, Desert Rock now needs the NTP in order to function and fulfill its proposed export of Navajo power. These two technologies are “connected actions,” together comprising a broader development project, though in practice, they are treated as distinct projects, each with its own Environmental Impact Statement (EIS) and series of permitting processes. The Draft EIS for Desert Rock largely treated the power plant as an isolated action, despite the myriad of “ancillary facilities” that a power plant requires in order to operate. The NTP has been mapped into the landscape, stretching from the existing and proposed power plants on the eastern edge of the reservation westward to a substation near Page, Arizona, where the power would be converted for sending into the grid, traveling as electrons into the homes of urban dwellers in regional cities. The DPA Director explains this topography to me, tracing the imaginary power lines with his finger on a large paper map hanging on the wall of his boardroom. The NTP, partnered with Desert Rock, create an infrastructure for converting coal to electricity and moving that power through thousands of miles of

148 Interview with Milton Bluehouse, Sr., Ganado, AZ, October 2008.
transmission lines. Yet, for many Diné people living on the reservation who have
shouldered the health costs of 50-plus years of intensive mineral extraction and yet where
1/3 of homes in 2008 are still un-electrified or without running water, this new geography
of power raises serious concerns. Lines that transmit are not lines that distribute; local
consumption would require yet another network of infrastructure and design (new
substations and distribution lines to individual homes, installed by the Navajo Tribal
Utility Authority) to “step down,” or convert the power to make it usable by individual
homes. While the potential for some reservation distribution of power is mentioned in
Desert Rock’s plans, it is not established or guaranteed. While Sithe would transmit the
generated power off-reservation, it would be up to the Navajo Nation’s technicians to
design, implement, and manage any local distribution of power.

In addition to the technological interdependencies of Desert Rock and the NTP,
this statement by the retired Council Member also suggests many of the contradictions at
work in the Nation’s ability to produce, sustain, and disseminate “Navajo power.”
Needing to reach urban (non-reservation) markets to sell “excess power,” extensive
transmission lines had to be built. However, the excess power being made through
Navajo coal (Navajo’s material power base) was unusable to reservation inhabitants
lacking basic household electricity. The lack of tribal capital that makes possible business
partnerships like Desert Rock are also ways in which “Navajo power” is exported, or at
least diluted, in terms of ownership and control. The polyvalence of “Navajo power” is
further evident in the economic “internal insufficiencies” discussed below,
foreshadowing deployments of sovereignty as another register of “Navajo power” in the
following section.
C. Converting Coal to C/Ash: Navajo Nation’s Economic Climate

Tribal revenue from Desert Rock is projected at $50 million annually, including the lease for the land, fee for the water, taxes and royalties to be paid to the Navajo Nation by Sithe. This is, by most estimates, a significant sum for one power plant when compared with overall current revenue sources for the Nation. For instance, in 2008, the Navajo Nation produced 19.23 million tons of coal overall, bringing in revenue of $58.91 million dollars. This compares with $57 million in oil and gas revenue from 3.7 million barrels of oil, 2.5 million Mcf\(^{149}\) of gas, and 750,000 gallons of liquid natural gas. In sum, the revenue projected from the Desert Rock power plant would amount to almost one-half of the current total revenue of $115.91 million from all minerals on the Navajo Nation. This figure represents a significant portion of the Nation’s comprehensive budget, which was $168 million in fiscal year 2010. Notably, Sithe Global Power has not disclosed how much annual revenue it anticipates generating from Desert Rock. When asked, a leading executive of the Desert Rock Energy Project said there was really “no way of knowing until I file my first tax statement … though obviously we think the return is adequate and the investment is acceptable.”\(^{150}\)

Given that official unemployment rates on the reservation have ranged from 42-50% over the past six years, the promise of 400 plant construction jobs and 1200-1500 long-term operations jobs also has a certain appeal in a location where in 2007, per capita income on the Navajo Nation was $7,121.80. Notably, most recent figures show that of

\(^{149}\) Mcf means one thousand cubic feet (of gas).

\(^{150}\) Interview with Desert Rock Energy Company representative, Window Rock, AZ, November 2007.
those employed in the formal economy of the Nation, 4.5% were employed in the mining industry, whereas 26.5% were employed in public administration or 49% in education, health care, and social services.\textsuperscript{151} Of course, these figures do not account for the other livelihoods and economic transactions that abound on the reservation, occurring outside of the formal wage economy, including sheepherding, weaving, collection of piñons and medicines for sale, ceremonial and medicine women/men’s fees, flea markets, and small-scale (quite often out of the backseat of an automobile) sales of prepared foods. However, despite project proponents’ emphasis on job creation for tribal members, the projected jobs are not guaranteed for Navajo workers, although Desert Rock, LLC will exercise Navajo “preference” in employment, consistent with Navajo hiring law. Nor are the jobs truly secure, as project developers admit:

“The average of 1200-1500 workers is for the first five years. After those 5 years, I don’t know where those workers are going to go. But I get calls every week now from Navajos saying, where is that Desert Rock job? I am tired of traveling, I want to come home. The Navajo Nation isn’t trying to change the world with one project – politics in any culture works at its own speed. If it’s Desert Rock today, maybe it’ll be a thousand megawatt solar plant in ten years. There’s no one project that is the magic bullet – it’s the leaders that are the magic bullet to make it work” (my emphasis).\textsuperscript{152}

This sentiment touches a nerve in the politics of Navajo employment: many people cite the need to travel off of the reservation to find work as a central reason for both the

\textsuperscript{151} These figures are taken from new 2008 data supplied to me by Trib Choudhary, Principal Economic Development Specialist for the Navajo Nation and are forthcoming in the 2009 edition of the Comprehensive Economic Development Strategy for the Navajo Nation, Division of Economic Development, Window Rock, Arizona.

\textsuperscript{152} Interview with Desert Rock Energy Project representative, Window Rock, AZ, November 2007.
so-called “brain drain” of young Navajos moving away (often permanently) as well as the exhaustion and expense of long-distance commutes from home to work site. With many of these sites of employment in border towns (Farmington and Gallup, for instance), the outward migration of Navajo workers means the outward migration of Navajo dollars, bolstering border town economies at the expense of reservation businesses.

Tribal economic development reports cite the “internal insufficiency” of this uneven economic landscape as the primary reason that outside capital and partnerships with developers like Sithe must be sought. At the same time, securing outside capital has proven difficult, due to several key barriers to doing business on the Navajo Nation: the Sovereign Immunity Act; the power of Tribal Courts; the cumbersome business site leasing process; complex issues of land; the legal matrix of tribal, state, and federal laws; lack of hotels; grazing permits; lack of infrastructure; lack of entrepreneurs; lack of capital, lack of banking opportunities; and dual and triple taxations on businesses.

To briefly review the first three of these: the Sovereign Immunity Act ensures that Native Nations – like individual states or the U.S. government – are immune from being sued in court unless first giving consent to be sued. Critics hold that the problem that arises when “sovereign immunity” gets confused with “sovereignty,” and thus the waiving of sovereign immunity gets understood as the waiving of tribal sovereignty, which would be impossible under existing legal frameworks. The effect of this confusion is that tribal leaders have been reticent to waive sovereign immunity in contractual agreements, which is essential in order to attract outside investors. In the case of Tribal Courts, the Navajo Nation has insisted upon relegating all dispute resolution regarding business matters to the jurisdiction of the Nation’s judicial system – an arrangement
which some perceive as biased against outside investors, who would prefer that any contractual disputes be settled in an “independent court”. Finally, it can take up to three years to navigate the layered bureaucracy and obtain the tribal permits necessary for a business site lease on the reservation. Tribal reports compare this standard time frame for business site leases to time frames for obtaining similar leases in other countries, ranking Navajo Nation below Angola, Mozambique, Lao PDR, and Haiti, among others, suggesting a direct correlation between “development” and the ease of obtaining such leases.¹⁵³

Just as the Sithe executive cites the pace of politics as a matter of cultural difference in his statement, “politics in any culture works at its own speed,” there is a sense among tribal economic development reports (and many tribal members) that indeed, the Navajo Nation is an inherently different economic world than on the “outside” – despite the circuits of capital and expertise flowing among New York, Washington, D.C., and Window Rock, Arizona. In other words, there is a widespread sense that the slow pace of change on the Navajo Nation is attributable, in large part, to the slow politics of change “inside” the reservation’s geopolitical boundaries, making economic growth appear to be a cultural problem. As one professional financial manager (with no official connection to Desert Rock) said to me, regarding the projected $50 million in annual revenue:

¹⁵³ The notion of “internal insufficiency” and the barriers to development cited in the paragraph are taken from the Navajo Nation’s 2005-2006 Comprehensive Economic Development Strategy of the Navajo Nation,” Prepared by Trib Choudhary, Principal Economic Development Specialist, Division of Economic Development, Navajo Nation, Window Rock, AZ. Page 49-56 and page T99.
“That’s chump change. Who, from our [Navajo] side, is going into their [Sithe’s] portfolios and looking at how much money they really do have? Fifty million should be a beginning point and go on up from there … [Tribal officials] don’t know what the outside world is capable of. This is a capitalist society and they don’t understand the revenue potential in future years to come of that power plant. Take into consideration, the water levels are going down and our water rights will be in question. Along with that, our electricity. The river that runs through here provides power to Nevada, Southern California … We are just doing Black Mesa all over again, but this time we did it to ourselves” (my emphasis). 154

The speaker’s recognition of “the outside” once again resonates with others’ spatial imaginary of the reservation’s boundaries (discussed in the chapter and elsewhere); there is a sense that tribal officials lack the knowledge necessary to act in a properly capitalistic manner, effectively giving away Navajo resources for “chump change.”

At the time of this writing, more than $40 million has been invested in Desert Rock, with no more than a well pad, encircled and locked within a chain link fence existing at the proposed site. The wells alone cost $3 million. Converting coal into cash – $50 million in revenue for the Navajo Nation and presumably much more for Sithe – remains a largely unpredictable venture, despite the Nation’s steady historical reliance on coal extraction. The many “connected actions” required for this conversion of energy to occur mandates not only a staggering list of federal and tribal air, water, and land permits, financing and infrastructure before construction can ensue, but requires a long-term commitment to coal: at least fifty years, the estimated life of the power plant. Such commitments are becoming increasingly vulnerable in the changing, global climate of coal power. This conjuncture is not lost on the energy executives, who acknowledge the

154 Interview with Clarice Johns, Tsaile, AZ, July 16, 2008.
precarious politics of energy in such an undertaking. One executive remarked, “The political nature of coal causes people to think more than just twice about what they are doing.”

The “political nature of coal” is not only a political problem in the sense of governments being increasingly pressured by social movements, science, and other non-governmental actors to lessen national dependency on fossil fuel resources, but is also a financial problem in that long-term financing of coal power contains numerous uncertainties, including carbon taxes and the high cost of retrofitting technologies and required mitigation of environmental damages. And yet, there is a double move at work: at the same time coal is appearing increasingly risky and precarious, there is also a pairing of coal’s sheer abundance in the U.S. with the discourse of “homeland security,” fueling a resurgence in interest in coal as a national security measure. Still, with new coal-fired power plants being cancelled and challenged across the U.S. from North Carolina to Nevada (including some of Sithe’s own projects), international gatherings such as the 2009 Copenhagen Summit on Climate Change, and mining catastrophes from West Virginia to rural China, coal’s “political nature” is center stage in a transnational energy drama. In this drama, where industrializing states assert a “right to pollute” and air pollution disregards geopolitical boundaries, coal and sovereignty are cast together, dual sources of power with contested futures.
II. Situating Emergence: An Analytic for Energy Development

A. The Emergent Object

As a proposed figure in incipient stages of becoming, Desert Rock is a complex, emergent object. Though un-built, it moves, shape-shifts, eludes, haunts, performs, and conjures desire; it is poignantly experienced and transformative for those it summons. As an emergent object not yet settled, still under debate, it generates a “politics of possibility” (Gibson-Graham 2006). This politics is worked out, as discussed in the following chapters, by building both fantasies and concrete infrastructure for differently envisioned futures. However, these differing possibilities and visions of the future are always contested, unpredictable, and contingent upon an array of interdependencies with trans-local (and non-Diné) actors affecting action, from a distance. Thus, while the emergent is primarily a statement about temporality (possibility, becoming, future-making), it also carries implications for spatial imaginaries (landscapes, ecologies, networks) and the relationships these spaces engender. Because it is emergent, with an uncertain future, Desert Rock poses a problem for both its opponents and its champions, demanding work by various interested parties: social movements, tribal officials, regional activists, the media, federal agencies, researchers, and residents of the proposed site. It possesses the ability to speak back and conjure utopia and dystopia, artifacts, knowledge, subjects, concerned publics, landscapes, and alternate readings of history, placing the ethnographer, myself, in a crowded field of research, cultural production, and action.

I situate my analytic approach to emergence within the vein of social practice theory and the various theoretical trajectories I bring into orbit, including studies of science, technology and society (STS), cultural studies, and neo-realist approaches to nature, especially contemporary biology. As elaborated in detail in the Introduction, these
interdisciplinary approaches present emergence as a matter of ontology, methodology, and relationality. That is, it is simultaneously a theory of the nature or being of things (ontology); a theory of how to approach problems of inquiry (methodology); and a theory that sees how emergence is produced by new connections between entities – including ourselves – operating in broader networks of relation (relationality). As such, an emergent object like Desert Rock demands thinking along all three lines of inquiry at once: we are attuned to more complicated understandings of what the unfolding object is, what work it does, and what kinds of relations and interpenetrations it creates.

The emergent object could, in a sense, be thought of as an emergent actor – invoking one of the more helpful, vibrant concepts developed by Actor Network Theory (ANT). Given risks of the passivity and immobility suggested by the term “object,” speaking of an emergent “actor” might connote more vitality and agency, reinforcing the creativity at work in processes of emergence. However, as I have developed this theory out of my encounters with the Desert Rock controversy and broader politics of energy development on the Navajo Nation, I want to be reminded that development infrastructures such as coal power plants are indeed, very much things. That is, they are, undeniably, objects of material culture and monuments of/to modernity, their action enabled only through their associations with humans. For these reasons, although I find many of the concepts developed by ANT to be crucial to my analytic and descriptive approach, I opt for “object” instead of “actor” in this theory of emergent entities. My choice to speak of the emergent “object” also follows others in STS who propose studying “material-semiotic objects” as productive of new and changed material, cognitive, subjective, and ethical relations (Haraway 1997). I see the emergent object that
is Desert Rock as one type of material-semiotic thing, a way into understanding other kinds of politics, identities, and imaginaries of the future.

The quite obvious absence in this triad of ontology, methodology, and relationality is epistemology. What does emergence, and the emergent object, as an analytic approach allow us to know? In other words, through what theory of knowledge does emergence best operate? Or, put differently, what other kinds of knowing subjects does emergence allow? I situate emergence as a post-constructivist epistemology, its fluid, processual nature attending to situated practices in such a way that knowledge that is always located and grounded in a material world that the knowing subject experiences. Furthermore, the knowing and knowledge-making subject is herself always engaged in relationships – human, ecological, visible, and invisible – shaping her ability to know, because of the constraints and possibilities of those connections. These are not only the lessons of fieldwork, but are broader reflections on how an analytic of emergence resituates knowledge from being something “out there” that one attains, incorporates, or transfers, instead being processes of understanding and knowing made through and because of relationships to the world one inhabits. The products of this kind of epistemology are analyses, critical insights, novel images, and turning points that are both textual and trans-textual, and are always in conversation with others. The chapters that follow contain some examples of such epistemic projects, the diverse “findings” by a wide range of intensive engagements with the emergent object of Desert Rock.

My analytic approach attempts to further articulate these loose threads of emergence theory (see the Introduction), weaving a more solid theoretical foundation for understanding contemporary, lived, material, and political effects of proposed
technologies, incorporating considerations of epistemology into the triad of ontology, methodology, and relationality. I think it is particularly important to attend to processes of emergence and emergent objects in the field of critical development studies and political ecology – in which I generally locate my work – because of the nature of development technologies, particularly those that are to be constructed as monumental parts of built, so-called “Third World” environments, securing material, figurative, financial, and political relationships within a colonial relation of power. Such objects are emergent in that they are designed, financed, managed, marketed, and otherwise projected for a period of time prior to their construction; in this projected phase, they exact a range of effects, engaging some people and alienating others, regardless of their eventual institutionalization. Drawing on social practice theory’s emphasis on the particularities of how identities, movements, discourses, and contestations are worked out in practice (D.C. Holland et al. 1998), seeing the emergent nature of a proposed development project focuses attention on the unpredictability, fluidity, and broader interpenetrations constituting what might otherwise be presented as a “fixed” or settled phenomenon. This, again, is where the emergent object posits a “politics of possibility” for those invested in its materialization or institutionalization; its conclusion is not foregone, its footprint is not prefigured. Hope is embedded in the politics of the emergent, regardless of which side of the debate a particular actor stands on. The new meanings of sovereignty, artifacts and works of art, grassroots energy reports and public hearings, and encounters with hedge fund investors described in the following chapters index the hope and sense of possibility that Desert Rock conjures, for both opponents and advocates of the power plant.
B. Productivity (the Other Side of Extraction)

The second component of my analytic approach to emergence is an emphasis on the productivity of emergent objects. As the other side of extraction, always already implicit in any extractive practice (be it anthropology or energy development, as they have been perceived by a majority of Diné people), productivity permits traceability. That is, we are able to see and track the effects of controversy, disentangling some of the complexities of human interaction through the products of these histories. Following the work of Michel Foucault and his theorization of power that challenged what he called the “repressive hypothesis” (Foucault et al. 1980, vol. 1), my approach to productivity draws upon a productive concept of power. As Foucault’s theory of power moved us beyond seeing power as always repressive, singularly embodied, or spectacularly expressed (Foucault 1977), my approach to productivity focuses on power’s “capillary” capabilities, generating lived, material effects in bodies, things, landscapes, and communities even when the source of power, or object itself, remains spectral or hidden.155

An emphasis on the productivity of emergent objects does three things, in particular, for my project: First, stressing productivity counters the “myth-making machine” noted above, replacing “cartoon images” of generic “Indians” with historically particular, culturally- and geographically-specific practices of indigeneity today. Second, focusing on productivity focuses our attention on the meaningful transformations that emergent objects can and are enacting in the present, regardless of their uncertain futures.

155 This is perhaps not so dissimilar, in some senses, from Foucault’s use of Jeremy Bentham’s image of the panopticon (Foucault 1977).
Finally, emergent objects like Desert Rock are productive of changing landscapes of power, again understanding power in the three valences that reverberate throughout this dissertation.

To the first point, the practice-oriented approach of productivity tunes our attention to what actual people, in actual situations and locations, are doing and making as manifestations of indigenous identity. In the problem of energy development, for instance, we see how the familiar trope of Native peoples as “first environmentalists” is not being embraced carte blanche, but is instead being (re)produced in complicated ways. For example, some Diné activists opposing Desert Rock (and coal development more broadly) consistently deploy the trope of Native people as being inherently environmental “since time immemorial.” Yet at the same time, other Diné activists opposing Desert Rock reject this identity, adamantly stating they are “not environmentalists.” This tension opens a space for rethinking well-worn ethical positions, when what it means to care about and identify with the earth and at the same time reject “environmentalism” becomes a prevailing moral logic. This problem will be taken up in later chapters.

Non-Native environmental groups who partner with Native organizations deploy this trope at times to advance their alliance-building and political agendas, yet at other moments these groups denounce the tribal government leaders for their failed environmental ethics. And perhaps most interestingly, the trope of “first environmentalist” is deployed by the tribal government itself in some controversial cases of economic development (such as the Navajo Nation’s official, staunch opposition to a ski resort on the San Francisco Peaks in Flagstaff), yet demonized and framed as an ethic of “outsiders” in other cases – such as the proposed Desert Rock project. Seeing the
diversity of such deployments shows us the productive work that Desert Rock does, as an emergent object, troubling easy assumptions about who counts as an environmentalist and how these deep-seated “myths” of indigeneity permeate contemporary development debates.

Regarding the second point, which is very much related to the first, focusing on productivity focuses our attention on the meaningful transformations that emergent objects can and are enacting in the present, regardless of their uncertain futures. This shifts our temporal analytic, such that the “outcomes” of Desert Rock are not projected in the distant future, following its construction and operation, but are made visible in the present; we can see that Desert Rock is having “outcomes” in the here and now.

Environmental policy asks important questions about how the impacts of development projects on particular locales will be mitigated and how specific species, watersheds, airways, and other ecological actors will be restored following a particular industrial event or object (like a coal-fired power plant). However, policy projections – though crucial in their orientation toward planning for the future – are unable to account for the more subtle dynamics of change underfoot from the moment a proposal is made public. Focusing on productivity situates the projection into the present moment, noticing the work an idea can do, long before any designs or plans are sketched out.

To the third point, emphasizing the productivity of emergent objects takes my approach back to the broadest framework of this dissertation: the multiple, interpenetrating landscapes of power constituting the Navajo Nation today. Focusing on productivity shows how new landscapes of power are being and would be constructed because of Desert Rock, reshaping landscapes of (material, mineral) power built by
nearly a century of intensive subterranean resource extraction on the Navajo land base; in other words, the atmospheric and terrestrial landscape is produced though the proposed expansion of the Navajo Mine, coal processing, re-routing of the Burnham Road, and other ancillary facilities of the power plant – the well pad and chain link fence in place being the first manifestation of this new landscape of power in Burnham. Second, landscapes of (cultural-political) power built by nearly five centuries of Diné peoples’ negotiation with settler colonialism continue to transform, through the emergent object of Desert Rock, as the controversy produces new challenges to tribal sovereignty and to state and federal jurisdictions, social movements and other political collectives, tribal policies, discourses surrounding “clean” and “green” energy development, and artifacts of cultural and aesthetic value.

Finally, landscapes of (sacred) power established through many generations of rendering the Diné Creation Stories and their related ceremonial practices are being reconsidered and produced anew through the specter of Desert Rock. For instance, locations widely agreed upon as sacred among the Diné (and as in the case of the San Francisco Peaks, site of the Arizona Snowbowl ski resort, sacred to the Hopi and Havasupai as well) are deployed by tribal members as reasons to block – or enable – development projects in other sites on and around Diné territory. And similar to the opposition to uranium mining, when tribal members articulated the material/mineral landscape of power with the landscape of sacred power by invoking the monsters of Creation Stories to understand the “yellow monster” that uranium turned out to be, many tribal members have confronted the question of Desert Rock with knowledge about coal from the Creation Stories, as “the liver of mother earth.” And this final, sacred landscape
of power is not the ubiquitous “spiritualism” ascribed to generalized, dislocated indigeneity, but a sense of sacred recognition of a specific place, grounded in culturally and historically particular stories, deities, landscapes, and practices of reverence. These landscapes of power do not overlay or articulate contiguously but are in constant flux, actively produced and transformed through the extractive practices of energy development – actual and projected. The chapters that follow trace some of these landscapes of power, produced through the proposed extractive activity of Desert Rock.

C. Anthropology in/of the Crowded Field: An Aerial View

From the very beginning of my engagement with Native American energy politics and the Navajo Nation’s Desert Rock controversy, I found myself in places literally crowded with other people sharing my concerns, asking similar questions. In fact, as noted earlier, I arrived at this project precisely because I was already enmeshed in a crowded field of research and action on indigenous and environmental politics. My project brings anthropology to join this multitude of experts working on this critical topic – other academics, policymakers, grassroots intellectuals, artists, social movements, documentarians, the media, scientists, regional politicians, and transnational activist networks. Anthropology may have claimed the corner on the market for speaking about “the indigenous,” forming at nearly the same time and in relation to the end of the armed struggle or “Indian wars” of the late 19th century and turning culturally and linguistically distinct nations into a singular, homogenized identity as “Indians” (Paul Chaat Smith 2009, 4). However, the discipline now has to justify its politics, its presence, and its epistemic ambitions as it re-engages its “strange marriage” with Native America, yet now
on different terms than in the past (Orin Starn n.d.). Thus, in such a crowded field of knowledge production about and increasingly, by Native peoples and about urgent problems such as energy and development, the question arises: How does anthropology situate itself, define its unique perspective, and approach the politics of knowledge in these crowded fields of expertise?

For those of us in this crowded field, Desert Rock itself posed a specter, haunting and catalyzing actions for all of us invested, in different ways, in its contested, unpredictable future. It exists discursively in a broad public debate, but in terms of its actual construction, the proposed site is only a fenced area of well pads for water sampling, large hoses, and concrete slabs, visited only occasionally by unmarked white trucks carrying anonymous technicians. Yet, the emergent object of Desert Rock has the power to mobilize action, generate discourse, and create what Holland has called a “figured world” (Holland et al. 1998). Though it cannot be said to exist materially, except through its incipient objects, it has had physical and emotional effects on a wide variety of people invested in its life and in its death: stress, anxiety, exhaustion, agitation, fear, desire, and hope. Desert Rock’s emergent nature has been nurtured through a wide array of email listserves, online news media, and the Desert Rock blog, a central, cyberspace hub for information, news, and archives related to the proposed power plant. Through all of these technologies – informatics, mechanics, legalities, activist networks, and anthropological research – Desert Rock is translated to ever-widening publics, accruing meaning and force, becoming more real, even as its future remains increasingly uncertain.

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At exactly 6:00am, the tiny wheels of the Cessna 210, a six-seat, turboprop airplane, let go of the black tarmac outside 7-Bar Aviation at the small airport in Farmington, New Mexico. We took off due west before making a tight, hairpin turn, heading straight into the rising sun. The plane shuddered against the wind, and I fumbled with my headset – bulky foam earphones and an adjustable microphone with volume and voice controls I struggled to figure out – the only way to communicate with the person sitting just next to or in front of me. At such velocity, the wind becomes an inescapable zone of noise; with the headset on and the ground quickly shrinking, I could only hear a faint static and hum, like the sound of swimming underwater. The ground receded quickly beneath us and soon the whole of Farmington was visible – a strip of verdant farms flanked by oil well pads, buildings, highways, and sandstone outcroppings running along the wide San Juan River. The pilot, the environmental policy specialist, the Diné activist, the reporter and photographer from the *Los Angeles Times*, and I, the anthropologist, were off early this morning for a fly-over of the San Juan River basin and lower Chaco Wash.

Mike, the environmental policy specialist, Farmington resident, and regional activist had arranged this trip for the reporter so that she could augment her story on energy development on the Navajo Nation with a bird’s eye perspective of the landscape, including aerial photos of the Navajo Coal Mine, two existing power plants, the proposed site for the new power plant, and all of the rural Diné homesteads in between. The journalist’s beat is air quality and her interest in the existing power plants is because they feed electricity to 600,000 consumers in Los Angeles. Mike’s aim was to show her the “energy complex” of interconnected oil, gas, and coal industries in the area and the
proximity of these facilities to Diné families, farmland and grazing lands, river tributaries, and archaeological sites. Organizer for a regional, environmental, social and economic justice NGO, he perceived and worked to protect the region not in terms of the geopolitical boundaries of cities, reservations, or state lines, but through its features defined by the San Juan River, which rises in the southern slope of Colorado’s San Juan mountains then twists and meanders 400 miles before feeding into the Colorado River.

The pilot told us to hold on and the plane took a sharp turn to the left and downward. We dove toward the jagged badlands landscape, the serpentine tributaries of interconnected waters becoming more distinguishable with every yard we descended. The land was also marked with cylindrical storage canisters for natural gas; with dark circular fields of corn, pumpkins, squash and tomatoes grown by the Navajo Agricultural Products Industry (NAPI); and to the north, through plumes of white smoke from the power plant’s stacks, rose the snow-capped peaks of Mt. Hesperus, the Navajos’ northernmost sacred mountain. The photographer swung open the window and leaned out of it, aiming his zoom lens towards the grey hills of coal combustion waste (CCW) or “fly ash,” piled neatly behind the dragline at the mouth of the Navajo mine. I could see the picture he was making: open-mouth coalmine in the foreground, Diné homestead with grazing sheep in the background, a contrast of death and life. Mike explained to us how the expansion of this open-mouth mine – required for the proposed power plant – would claim this and twenty other families’ homesteads. Sitting next to me, Lori Goodman, activist with Diné CARE, braced herself against the pounding wind coming into the plane through the open window, and added that there was so much we couldn’t see from here –
so much that would be lost that lies beneath and hidden between the formations of the land.

Each individual in the airplane represents a wider group of people deeply invested in the Desert Rock controversy. Bruce, the pilot with EcoFlight stands in for others with mechanical and technical expertise involved in energy and environmental issues, including renewable energy entrepreneurs, engineers, scientists, and economists. Mike, the environmental policy specialist, is a leading ally to Diné organizations fighting the proposed power plant, but also represents a cadre of professional environmentalists from Flagstaff to Washington, D.C. involved in the debate. The Diné activist, Lori, represents one organization in particular, but also hundreds of other tribal members involved in the dispute, whether through nonprofit organizations, tribal agencies, or grassroots campaigns. The Los Angeles Times reporter and photographer were two of hundreds of reporters following the controversy, creating a media maelstrom of interest in the issue. Though notably, after all the work invested to show her an aerial view of the energy landscape, the story and photos never ran. I, the silent observer in the plane, stood in for other researchers (anthropologists as well as historians, political scientists, and others) interested in the debate and its broader issues.

Far below, I think I recognize Diné elder Alice Gilmore’s sheep camp just south of the Navajo Mine. I remember my first visit there – it was another moment of discovering myself in another instantiation of this crowded field of knowledge and action, as I was surrounded by activists, journalists, policy experts, and attorneys, all striving to contribute to the analysis and future of Desert Rock. On that day, as Ms. Gilmore spoke her opposition to the proposed power plant, and I scribbled notes
Alongside (Navajo and non-Navajo) news reporters, activists, and other researchers, I realized I was part of broader a network of interlocutors, participating in and producing a narrative about energy and indigeneity on the Navajo Nation. The very act of this participation or interlocution has worked to make Desert Rock more “real,” at least in the Latourian sense of an object gaining traction through its ability to enroll others into caring about, and acting upon its future. Latour writes:

“A technological project is neither realistic nor unrealistic; it takes on reality, or loses it, by degrees … But anything can become more real or less real, depending on the continuous chains of translation. It’s essential to continue to generate interest, to seduce, to translate interests. You can’t ever stop becoming more real” (Latour 2006: 85).

That morning in the airplane as well as many times before and since, I found myself in a crowded field of action and knowledge production surrounding energy politics on the Navajo Nation. Not only was I joined by others in my interests or pursuits in “the field,” but I was in direct competition to prove the relevance of an ethnographic perspective vis-à-vis the more pragmatic offerings made by reporters (who offered the hope of getting the story into national or international news, even when they failed to deliver), policy analysts (who offered the hope of affecting tribal, state, and federal policies), attorneys (who offered the skill of litigation in order to expose covert alliances.

\footnote{In an historical account of Aramis (in his book by the same title), the Parisian subway that was never built, Latour demonstrates that despite the failure of this train system to ever materialize, there are significant effects that ensue from the negotiations and compromises over the proposal (Latour 1996). To investigate the immaterial, Latour urges a method of paying close attention to documents, seeing terrains as rhizomatic or networked, following the “drifts” to see how actors identify technologies as social and institutional – regardless of their tangibility. In his analysis, “reality” depends upon translation. I take this Latourian understanding of translation and extend it to my notion of the crowded field.}
and make claims for local residents), and regional activists (who offered the hope of raising funds and awareness at the grassroots level). The surprising number of other producers of knowledge and action meant that I had to work much harder to articulate my unique contribution to this shared matter of concern.

As we each intervene in the crowded field – and in doing so, produce it – we translate the common matter of concern to other, and often intersecting networks of which we are a part: news, academic, activist, policy, and so forth. By translating Desert Rock, talking about it, writing about it, making it known, we engage with others in a collective practice of making the power plant more “real,” even as it is still an emergent object with an (increasingly) uncertain future. Its reality is produced through our various products: new stories, books, blogs, journal articles and chapters, websites, speeches, slide shows, newsletters, photographs, conversations, lawsuits, and works of art. In other words, we participate in the enactment of a particular reality; our translation, in this sense, is not passive but is intrinsically active, additive. What the crowded field means for method, then, resonates with what John Law describes:

“The picture of method starts to shift. The argument is no longer that methods discover and depict realities. Instead, it is that they participate in the enactment of those realities. It is also that method is not just a more or less complicated set of procedures or rules, but rather a bundled hinterland. This stretches through skills, instruments and statements (in-here enactments of previous methods) through the out-there realities so described, into a ramifying and indefinite set of relations, places and assumptions that disappear from view” (John Law 2004, 45).

The ethnographic difference I embodied (in addition to the other markers of difference) enabled me to move more slowly than the others, to hold back, listen, and wait. The sustained nature of my engagement – compared, for instance, with the LA Times journalists who flew and “covered the story” in five days – permitted me to
develop relationships which, through their complexity, enabled me to see beyond the staid polemic of economic development versus the environment, which continues to plague the debate, truncating more productive analyses of the problem. This different pace contained a different promise regarding outcomes, as well; I would not file a lawsuit, write a headline story for the Associated Press wire, analyze soil or water samples of the proposed site, or organize conferences—all crucial elements of the movement. Instead, I would develop a reading of the action as I experienced it, situating a story into other networks of theory and practice—places where the journalists, attorneys, and policy experts might not travel. This practice became a different, if more ambiguous mode of collaboration.

As such, my writing is a rethinking of the act of translation as *interlocution*. In this way, the anthropologist is taking part in a dialogue or conversation, engaging actively in what is a productive practice in itself—not attempting to reproduce or represent the “real” or “original.” This approach sees translation as adding something to the collective, emerging analysis. It agrees with Michael M.J. Fischer: “Anthropology’s challenge is to develop translation and mediation tools for helping make visible the differences of interests, access, power, needs, desire, and philosophical perspective” (Fischer 2003, 3). However, because there is always that “element that does not lend itself to translation,” a kind of “treason” occurs in the process (Benjamin 1968, 75). When applied to anthropological practice and understood within the dynamics of knowledge and power, translation becomes more complicated. As Talal Asad argues, because “an assumption of coherence is indispensable to any translation,” there are always “conceptual displacements” in translation, full of epistemological and political
risk (Asad 1993, 177). In sum, something (and often, that is someone) is always betrayed in the process. Still, my approach to translation as generative and creative is the other side of the extractive processes of “treason” or loss. Returning to Fischer’s sense of the term (as practice), novel interpretations, perspectives, renderings, descriptions, and entities are always produced through translation. Or as de Sousa Santos puts it, translation produces specificity and particularity: “the alternative to a general theory is the work of translation” (de Sousa Santos 2004b, 341). Therefore, for anthropology, I do not see translation as a passive or mimetic practice, but as an active stance, allowing for anthropology to act as one interlocutor among many, maintaining the possibility to transform broader understandings of the situation at hand, thus creating new modes of action and intervention.

Developing the concept of the crowded field as the third component of my analytic approach situates me, the ethnographer, in much wider networks of knowledge producers and interested actors. The crowded field recognizes, from the start, that anthropology intervenes in crowded fields as one interlocutor among many, and must work for its distinction – perhaps particularly when those fields are crowded with the complicated histories of anthropological interventions. Most importantly, the crowded field – if sometimes unpleasant – is not fundamentally an unfortunate place to be, as the notion might suggest. Although “crowded” is generally taken as a negative adjective – a place where one is hot, cramped, unable to move freely, even claustrophobic – this connotation hinges upon how we interpret the presence of others in our intimate space.  

157 Similarly, although a “field” might conjure an agricultural metaphor of a well-designed and managed space bounded by fences, hedgerows, or roadways, it can alternately be imagined as a heath, an area of uncultivated, open land, its edges blending into forest. And while we could imagine this as a network
Moreover, the concept pushes us to see the epistemic and political value in being uncomfortable – in being unable to own, control, or regulate the activities, discourses, and desires of others with whom we find ourselves engaged.

In this way, I propose the crowded field as a positive aspect of attending to emergent objects and collaborating with others. Once we recognize the crowded field(s) that we are working in, then we might begin to view these spaces as opportunities instead of liabilities for anthropological practice. The crowded field is only a liability when we carry with us the model of the lone, maverick researcher (a la Malinowski) or isolated, singular knowledge producer who knows the world through a mind disconnected from the body it inhabits. This rejection of the Cartesian “mind in a vat” follows STS thinkers, especially Latour and Haraway, who attempt to listen to the “mob” instead of the elite, Socratic agents of “truth” (thus STS’s concern with democracy) and attempts to undermine the mind-body distinction in most of Western theory (thus STS’s concern with relationality). In sum, the cacophony of the crowded field, while deafening, unnerving, chaotic, and fraught, at times, is the fertile ground for knowledge production across difference (a whole range of differences, epistemic to historical), opening up the possibility of inter- or trans-disciplinary dialogues, collaborations, frictions, debates, new companions, and more complex understandings – and solutions – to urgent problems.

Conclusion

instead of a field, especially given the helpful concepts from STS that I draw upon, the “network” notion does not speak to my experience of this crowding quite in the way that the “field” does. Though both are spatial imaginaries, the field, unlike the network, has the capability of crowding and feeling more localized.
This chapter had two primary aims: first, to give an overview of what Desert Rock “is,” while at the same time complicating the straightforward, conventional, technical description; and second, to give an overview of my analytic approach to proposed energy development projects. To the first point, I sketched the contours of Desert Rock as it is proposed technically, legally, economically, and as a joint business venture between the Navajo Nation and Sithe Global Power. I explored some of its “connected actions,” like the Navajo Transmission Project, showing how these are interdependent infrastructures, each making the other possible, necessary, and urgent. The politics of these infrastructural interdependencies are complicated, interpolating spokespeople within (or formerly within) tribal leadership, at the level of federal policy, and among tribal members and employees who have critical opinions about the economic landscape of power Desert Rock aims to transform. Mounting a description of what Desert Rock “is” raises significant ontological and epistemological challenges – for what it “is” is largely defined by its absence (in a material sense) as well as by the work being done to resist it (in a socio-political sense). Furthermore, the interpenetrating knowledges of fiscal policy, energy engineering, technical expertise, and tribal-corporate business ventures each see Desert Rock – in its drawing board, or not-yet status – as a different object of risk, possibility, utopia or dystopia.

Second, I briefly outlined an analytic approach to energy development, building upon the theoretical foundations of landscapes and emergence laid out in the Introduction. This approach is broadly situated within practice theory, as it sees emergent objects being brought into being through the work of often differently invested political actors. I discussed how understanding Desert Rock as an emergent object allows us to see
it coming into being through its work and effects, even when it is not yet (and perhaps never) built. Such objects are emergent in that they are designed, financed, managed, marketed, and otherwise projected for a period of time prior to their construction; in this projected phase, they exact a range of effects, engaging some people and alienating others, regardless of their eventual institutionalization. I then emphasized the productivity of the emergent object, arguing that it generates new meanings, artifacts, knowledges, alliances, identities, and visions of the future, as will be shown ethnographically in the final three chapters of the dissertation. I closed the second section by introducing my notion of the crowded field of research and action, in which Desert Rock is situated as an emergent object of concern, generating a diverse network of epistemological agents, each acting in such a manner that contributes to the “reality” of the emergent object. This thus raises methodological considerations for anthropology. However, rather than see the crowded field as a liability or handicap on anthropology’s ability to speak on the shared matter of concern, it is an opportunity for new articulations of the problem to emerge, as well as new collaborations. In this sense, the anthropology/anthropologist of energy works in these crowded fields as a translator or interlocutor of meanings, participating in a dialogue to which she contributes her partial perspective generated by her ethnographic difference.
Interlude 2: Mounting Solar Power in Klagetoh

Eighty-two year old Miriam Johns lives alone, several miles down a rutted dirt road that twists between juniper and piñon trees and dips through sandy creek beds in an area known as Navajo Station. I visit her there, thirteen miles from the Klagetoh Chapter in the south-central region of the Navajo Nation, guided by the Chapter’s office manager and accompanied by photographer Carlan Tapp, who is starting a documentary project on residential solar installations on the reservation. Miriam’s off-grid home would seem utterly remote if it weren’t for the massive electrical transmission towers forty or fifty yards away. “I’d like to shoot ‘em down,” she tells us, gesturing toward the towers as they march on beyond the horizon of trees. On the roof of her single story, wooden home is one solar panel installed in the 1980’s, generating just enough of the midday sun to power a light bulb in the kitchen. Outside her home on the south side is a more recently installed, yet now defunct, pole-mounted two panel solar array. Carlan makes a photograph of Miriam standing next to this dysfunctional system, her uncannily youthful face cut with a wry smile. Even if she or the Nation had the twenty thousand dollars needed to bring electrical lines to her house, she says, she would rather have solar power, “because you never know what the future might bring. Earthquakes, or other things that might shut down the power lines. No, I’m with the sun people,” she quips.

Several miles away, at a neighbor’s cinder block, two-room home, an elderly man greets us at the east-facing door. He cares for the house and sheep for the homeowner while she is away. Slowly, he shows us two broken, ground-mounted solar arrays, one
situated between the house and a horse trailer, the other placed next to a woodshed and lone tree. Like Miriam’s home, there is also a single solar panel installed on the roof. Next to the cement steps at the front door, a black plastic box holds two dead batteries, green and grey with corrosion. Inside the house, a shiny new battery rests on a shelf, exposed wires leading to the rooftop panel, providing enough power for the kitchen’s fluorescent tube light. Carmen, the office manager and our guide, says these two houses we’ve seen are among scores of homes with broken or partially operating solar arrays, installed over the course of two decades. “We were the guinea pigs for this project,” she says, “like we always are, for water projects, or whatever.”

In the 1980’s, a company from Albuquerque installed fifty roof-mounted, single panel systems on homes, free of charge, throughout the Klagetoh community as a rural development project. A decade later, a different company arrived, installing pole-mounted arrays at the sites of the original fifty rooftop systems, plus one hundred additional systems at other homes. Whereas the tribally-owned utility, NTUA, installs systems now – like ours at Adella’s home – and manages their ongoing maintenance, the Klagetoh systems installed by non-tribal entities had no ongoing accountability to the community or long-term plan for technical expertise. The company’s maintenance plan for these new installations consisted of a brief training of a coterie of young, local men, 

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158 The Chapter administrators could not locate the records from either of these periods to confirm the companies’ names, contact people, or provide any other information. However, during a subsequent interview with a former director of the Navajo Tribal Utility Authority (NTUA), I learned that the NTUA has assisted in the installations of Klagetoh’s systems in at least one, if not both, of the early rounds of installations. The former NTUA employee could not recall, however, where the funding came from, nor was he aware that so many systems were no longer functional. When I told him I’d seen many that were defunct, he noted that there should not be any problem with the panels themselves, but the batteries or inverters were likely to malfunction first. Her recognized that maintenance (and its related expertise) is, and remains, the number one challenge for sustaining solar systems across the reservation. (Interview with Larry Ahasteen, Former Director of Renewable Energy for the NTUA, Window Rock, AZ, June 17, 2008).
who later moved away, lost interest in the systems, or began to ask families to pay for repair work, when they had been led to believe all maintenance would be free.\textsuperscript{159}

These experiments in infrastructure haunt energy entrepreneur Jackie Francke’s current undertakings in Klagetoh, where she grew up. A year before visiting these homes in Klagetoh, I spoke with Jackie, her aunt Nancy Chee, Chapter Secretary, and colleague Sandy, following a workshop Jackie and Sandy offered to community members – mostly elderly women – on maintaining home solar systems. In the course of our conversation at a folding table in the chapterhouse, it became clear that these early, largely failed attempts to mount independent power systems in the community have made it difficult for Jackie to communicate her technical expertise, despite her technical competencies, cultural familiarities, clan relationships, and strategic bypassing of central government bureaucracies. Elders’ collective remembrance of the initial promise of having electricity (to turn on a light at night, watch television, or refrigerate medication) turned sour as the two waves of hit-and-run solar installs left behind crushed dreams and useless hardware. Most homes in Klagetoh are still without electricity (and running water) – just as Jackie and Nancy grew up – even those homes with panels and batteries. Nancy estimates there are only twenty-five systems still functioning. After so many systems broke down, she says, “Many people took their panels off their homes and put them in their wood piles. They used them for something else.”\textsuperscript{160}

A local elder who had just arrived at the chapter house, unable to participate in the workshop because she doesn’t understand English, interrupted our meeting. Her home’s

\textsuperscript{159} Interview with Nancy Chee, Klagetoh, AZ, October 3, 2007 and June 26, 2008.

\textsuperscript{160} Ibid.
solar system was not working, likely because a wire was cut during recent renovation work. The workers took out all the fixtures as well, she explained, but didn’t put them all back in place, so she’s now staying in the home of another elderly woman. Nancy puts her name on the Chapter’s “list for help,” with a note that she needs a translator present for all home improvement and solar system work.

Past and present experiences with failing infrastructure, a sense of being targeted as a test site for under-funded new technology projects, and matters of translation shape what is possible for the future of solar in Klagetoh; at the same time, mounting off-grid, independent power in the community also depends heavily on negotiations over the community’s status as a political body, and its autonomy to act independently. The Klagetoh Chapter passed a resolution to establish a partnership between the Chapter and Jackie’s company, Geotechnika, Inc., to pursue Department of Energy funding (through the D.O.E.’s Tribal Energy Program) to support solar systems in the community. However, the grant was denied because the Klagetoh Chapter is not “LGA certified” on the Navajo Nation; that is, Klagetoh has not achieved independent status through the Nation’s Local Governance Act (LGA), which allows chapters to make certain infrastructural decisions without approval from the centralized tribal government. Since its adoption into the Navajo Nation Code (Title 26) in 2004, many activists, tribal members, council delegates, chapter officials, and business leaders see the LGA as the means to developing decentralized, community-based economies, with more direct engagement between community leaders and specific ventures, such as Jackie’s. However, as a former Navajo Nation Economic Development Executive Director explained, the process to gain LGA certification is long, uneven, difficult, and frustrating,
with the end result of certification failing to deliver the full autonomy it appears to promise. Jackie emphasizes the link between promoting autonomous, local governance and autonomous, local electricity. “We’re talking about independent power – and those who don’t have power,” she says.

Historical experiences with politics and technology interpenetrate, becoming entangled and confused, such that when the Klagetoh Chapter passed its resolution to pursue the Department of Energy grant, community members approached Nancy wondering why the Chapter was canceling its application to the tribal government for electrical distribution lines. To many residents, the decision to pursue solar power through the Geotechnika partnership was perceived as an abandonment of the Chapter’s long-standing pursuit to secure grid-tied power for rural homes. Tremendous work went into rectifying this misunderstanding that to pursue solar – again – did not mean giving up the requests for power lines. Thus, despite Miriam Johns’ preference for solar, the desire for electricity among most Klagetoh residents is not technology-specific. Rather, the desire is to be able to do the things that electricity allows, however those electrons are delivered into one’s home. On the other hand if Jackie and Sandy, perhaps “the sun people” in Miriam’s obtuse remark, can convince the women elders of Klagetoh to try, one more time, to harness this most abundant, unyielding part of their everyday lives, their families might enjoy the comforts and securities that electricity can bring.

161 Interview with Tony Skrelunas, October 7, 2008. Out of 110 total chapters on the Navajo Nation, only eight have achieved LGA certification, at the time of this writing.

162 Interview with Jackie Francke and Sandy McCardell, October 3, 2007.
Weaving our way back through the trees, leaving Miriam’s home, we noticed the truck’s fuel tank was very low. I suppressed a feeling of mild panic; in this landscape of power, gasoline can be hard (and expensive) to come by. I thought of my three-hour drive home with the sun already low on the horizon, calculating the timing of my departure, recalling the distance to the nearest gas station, and weighing the probability of making it to my off-grid, off-road home before the evening rains set in, muddying the road beyond recognition. I pull out onto the main highway and drive beneath the transmission towers that cut through Klagetoh, remembering Miriam’s quiet domicile hidden in their shadows.
PART TWO: POWER AND PRODUCTIVITY

In this section, Desert Rock’s effects as an emergent object are made visible by the work of tribal members, and others, invested in its contested future. Each chapter picks up a theme of the debate surrounding energy development on the Navajo Nation, which are, I argue, in fact much broader themes for understanding the colonial conditions facing Diné people and the Diné Nation today. Desert Rock is producing a space for debating these themes and matters of concern, through particular events and artifacts. These themes include sovereignty and its interdependencies (Chapter IV), Diné landscapes, bodies and futures as seen through new cultural production (Chapter V), contesting modes of knowledge and expertise (Chapter VI), culminating in a discussion of the identities and politics of energy activism, which themselves are emerging and as such, not fully knowable (Conclusion). These themes encompass a range of practices, knowledges, and meanings being produced through engagements with the proposed power plant. Again, I zoom in on the figured world of Desert Rock and follow its controversy in order to situate emergence and particularize these themes, which speak to ongoing concerns surrounding the energy technologies on the Navajo Nation and development, more broadly.
Chapter IV: Sovereignty’s Interdependencies

“Unlike ever before, environmental activists and organizations are among the greatest threat to tribal sovereignty, tribal self-determination, and our quest for independence.”

Joe Shirley, Jr., Navajo Nation President

Many, including the Desert Rock Energy Project developers themselves, have wondered why the Navajo Nation cannot simply make Desert Rock a reality, outright, without having to wrangle with layers of tribal and federal bureaucracy, regulatory procedures, documents, and other approvals. Why is the project nearing ten years of negotiation? If Native Nations are indeed sovereign, with nation-to-nation relations with the U.S. government, and the Navajo Nation has secured the capital and expertise for a power plant, what compromises the Nation’s power to carry out this project? What forces are at work, engaging diverse stakeholders, thereby maintaining Desert Rock in its emergent state?

A Sithe executive told me that, as an industry standard, most power plants of this scale are completed in far less time, without nearly this scale of complication or drawn-out negotiation. The status of the land makes all the difference, he noted, as does the local and global political climate of coal today. He admitted doing business with a Native nation, on tribal territory,
“is a completely different experience. It’s a coal-fired plant and it’s on the Navajo Nation – that’s a double whammy there. I could get a gas-fired power plant permitted and under way in nine months. Here, in comparison, we submitted the air permit in May of 2004. The EPA [U.S. Environmental Protection Agency] has been sitting on this going on four years. The lease took almost two years. The right of way agreements began in June 2006. You’ve got this element of time that’s totally incredible. And BIA [Bureau of Indian Affairs] still hasn’t acted on it. So there are layers and layers of bureaucracy that if you go to a state like Georgia or Mississippi, you get your air permit, get things worked out with the utility, and boom – you’re ready to go. Not here.”

The “double whammy” he notes is fundamentally about the materiality and volatility of the two resources in question. First, subterranean coal resources are increasingly problematic, as states and the federal government begin to set limits on carbon dioxide emissions, establishing new mandates for renewable energy. The executive is confident he could get a gas-fired facility built much faster, given the less controversial nature of gas. The rise in environmental activism (both on the Navajo Nation and globally) has made coal extraction a more politically sensitive economic development endeavor than ever before. Second, reservation territory itself – the federally-recognized land base of the Diné – makes the politics of place entirely different; the energy company has to obtain permits and mandates set by U.S. government agencies, due to the trust status of Navajo land.

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164 What is meant by “Tribal lands” and “Indian lands” has specific legal definitions relevant to a wide range of land use, including energy development. The U.S. government holds legal title to all American Indian reservation lands as “trust land”. Trust lands are then sub-categorized in terms of “ownership,” depending on specific lands in question (on the Navajo Nation or other American Indian trust lands). The trust land can then be “individually owned” by an enrolled member of Nation, with the federal government retaining legal title but the “beneficial interest” remaining with the individual; or, the trust land can be “tribally owned,” with the title held by the federal government and the Nation holding the beneficial interest. No individual or Nation holds legal title to “trust lands.” The only types of reservation lands to
Bearing in mind the contested nature of coal and tribal land the energy executive laments, one explanation for the protracted process of Desert Rock lies in the inherent ambiguities of authority implicit in tribal sovereignty. Hence, the “layers and layers of bureaucracy” required to navigate projects on sovereign territory combined with the “element of time” complicate and slow down the development process. That is, sovereignty indeed matters in large-scale energy development projects like Desert Rock. Though precisely how, in what ways, and through what contested meanings sovereignty matters is not always so clear-cut. In the realpolitik sense of sovereignty, one of the ironies in the executive’s frustration is that although Native Nations are supposedly afforded independent “Treat as States” status in development negotiations, they are far more complicated, interdependent political bodies than, for instance, the state of Georgia or Mississippi. After he made this statement, the executive confessed that this was his first development project on tribal land. I sensed it might be his last.

This chapter discusses ways in which the emergent object of Desert Rock is producing an arena for debates over sovereignty, and how it should be best exercised. I employ the notion of interdependence, a theme throughout this dissertation, to debunk the
dual discourses of dependence and independence so dominant in discussions of sovereignty. As an analytic tool, *interdependence* does much more work toward understanding the complex interpenetrations, valences, and landscapes of power constituting the Navajo Nation. Desert Rock produces a space for debating sovereignty through discussions of how political self-determination and autonomy should be built, quite literally. That is, the question for many engaged in this struggle becomes, *what energy technology, specifically, is the best to secure tribal sovereignty in the face of longstanding extractive legacies and enduring colonial relations of power?* Advocates of Desert Rock, including project proponents and developers, Navajo Nation President and his administration, the majority (but not all) Council Delegates, and a portion of tribal members, work together to position the proposed power plant as the machinery for sovereignty through its economic power to generate $50 million annually in tribal revenue and its symbolic power to override the state of New Mexico. Opponents of Desert Rock, including non-governmental organizations, grassroots activists, some Chapter Presidents and Council Delegates, many tribal members, and residents of the greater region, work together to position the proposed power plant as the antithesis of sovereignty. They discursively situate Desert Rock as a project enmeshed in too many liabilities, compromises, and uncertainties for the Nation. Instead, many of these opponents of Desert Rock argue that sovereignty would be best achieved through alternative energy technologies, especially wind and solar. Much of their organizing work, knowledge production, and political imaginary is built on the concept of a Diné landscape and economy powered by grid-tied wind farms and solar troughs, generating power for export as well as local consumption, surpassing New Mexico’s own renewable
energy standards\textsuperscript{166}, and advancing Navajo sovereignty through the technological capability to generate tribal revenue through the Nation’s vast renewable energy resources.

It comes as no surprise, of course, that contestations surrounding a proposed development project would produce new meanings and struggles over sovereignty. And while sovereignty in Native America has a unique and particular history, sovereignty is rarely clear-cut or tidy in any context; in fact, its negotiations are often what political, cultural and national movements struggle over, worldwide. In the U.S., large-scale development projects on tribal land have promoted widespread, national debate on the limits, potentialities, histories, and various projects of tribal sovereignty (Cattelino 2008). Perhaps the most incendiary examples have come from the advent of high-stakes casinos on tribal lands. The Indian Gaming Regulatory Act of 1988 established the National Indian Gaming Commission (NIGC) to regulate three classes of gaming: Class 1 ("traditional" Indian gaming, regulated only by tribal governments), Class 2 (bingo and card games), and Class 3 (blackjack, casinos, high stakes gambling).\textsuperscript{167} Other instances of

\textsuperscript{166} New Mexico’s Renewable Portfolio Standard (RPS) mandates 20\% of energy be generated from renewable sources by the year 2020. This compares with Arizona’s more conservative projections of 15\% by 2025 and Colorado’s more ambitious projections of 30\% by 2020. The Navajo Nation, which cuts across these three states, has not set any such standards of its own. For the sake of national comparisons, the highest percentages have been set by the states of Hawaii, with 40\% by 2030 and Maine, which has had an RPS of 30\% since the year 2000 and projects 10\% of additional renewable resources by 2017. These are followed by projections of 30\% (like Colorado) in New York by 2015 and by 25\% in West Virginia by 2025. These are among the 24 states plus the District of Columbia with RPS policies in place, to date. Of course these energy potentials are utterly dependent on the states’ average wind speed, number of consistent solar hours, and other geographically specific particulars. Source: U.S. Department of Energy. http://apps1.eere.energy.gov/states/maps/renewable_portfolio_states.cfm

\textsuperscript{167} The NIGC website estimates there are 360 gaming establishments among 220 federally recognized Nation (http://www.nigc.gov/). These projects range from the most lucrative and well-known casino, Foxwoods Resort Casino, owned and operated by the Mashantucket Pequot in Connecticut to the small, isolated Apache Nugget Casino, in a remote stretch of Highway 550 outside Cuba, New Mexico, distinguishable by a concrete tipi next to the parking lot. Many of these casinos are more than casinos,
large-scale energy development and waste management have also spurred sovereignty debates, such as the bid by Private Fuel Storage to transport and store high-level nuclear on the Skull Valley Goshute reservation in Utah, or activism by the Yakama Nation in the state of Washington to restore sturgeon and salmon populations in the Columbia River, nearly decimated by radioactive bleed from the Hanford nuclear production complex upriver. As in many of these other situations, tribal activists and tribal leaders often agree on the value of advancing tribal sovereignty and see the federal government as an historical adversary and ally in this pursuit; yet they often hold differing visions of the specific technologies that will ensure the political-cultural self-determination many hold to be inherent in their existence as indigenous nations.

This chapter explores how sovereignty is being struggled over through the specter of Desert Rock in two circuits of activism. First at the level of the tribal government as a political body, which must interface directly with the constraints of the United States’ “federal primacy” (defined below) over Indian Nations, despite their official nation-to-nation relationship. This involves intricate and often intimate negotiations over the realpolitik, or practical, juridical aspects of sovereignty, requiring the hard work of politics – making trans-national alliances with other Native Nations, with federal agencies, and navigating the challenges of state agencies (New Mexico and Arizona, primarily), which do not have the same primacy over Indian Nations, but which do have stakes in the outcomes of development decisions. Second, Desert Rock promotes struggles over sovereignty through environmental activism on the Navajo Nation –

offering hotel accommodations, full-service restaurants, fueling stations, conference facilities, and even spas. I moved away from the Navajo Nation just as its first (hotly debated) casino, Fire Rock, opened just east of Gallup, New Mexico, alongside Interstate 40.
grassroots and non-governmental groups who see their opposition to Desert Rock as a way of promoting, not denouncing, tribal sovereignty. They interface with the tribal leadership and U.S. government agencies, broader networks of environmental activists, funders, media, and others enlisted in the crowded field of research and action surrounding energy development on tribal land. This chapter traces deployments of sovereignty made through these two circuits, showing how although each side often sees the other side as a “threat” – as in the quotation that opens this chapter – the precise peopling of this technological divide is far less certain. In other words, the “environmental activists and organizations” that President Shirley condemns are in many cases his fellow tribal members, who are also deeply invested in “our independence.”

And yet, sovereignty, as a juridical term with its own broader theoretical resonances and differently located, global struggles, cannot account for the full range of politics being generated through the contestations surrounding Desert Rock – not even within the movement opposing Desert Rock. The chapter thus concludes by way of a visit with Alice Gilmore, an elderly resident of Burnham, New Mexico, who lives down the road from the existing Four Corners Power Plant and opposes Desert Rock on the grounds that the mine expansion would destroy her ancestral homesite and grazing area. Her politics exceeds the capacities of sovereignty in defining what is at stake in the future of Desert Rock. And while the tribal government and tribal environmental activists (as well as non-Diné environmental activists) may see one another as a threat, at times (though as kin, at other times), we are left to wonder if they are even talking about the same landscape in which Alice Gilmore lives, farms, has raised children, herded sheep and cows, buried relatives, and inscribed memories. Her reflections connote
sovereignty’s ethics of independence, self-sufficiency, and a wholeness of life, but her politics of place de-center sovereignty’s own power in these debates. Her desires go beyond the term that has so dominated the Desert Rock dialogues.

An important intellectual and political note before continuing: My interest is not to address, compare, or value sovereignty as competing “claims” nor is it to engage ongoing debates surrounding inherent sovereignties and modern/colonial contradictions. Rather, informed by Actor Network Theory and ethnographic methodologies, my approach centers on what work the notion of sovereignty does (and thus, doesn’t or can’t do) in public debates on science and technology, and what such diverse concepts and practices of sovereignty might reveal about indigenous politics today. I am interested in how Desert Rock has prompted people to mobilize sovereignty, a longstanding concern, in new and interesting ways. And, as noted, I am interested its limits and purifications. The two circuits of negotiating sovereignty described in this chapter suggest that sovereignty itself may be an emergent process traceable in practice. Thus, my approach to sovereignty attempts to complicate conventional, legalistic debates on tribal sovereignty that characterize it as either “inherent political authority” (i.e., inalienable independence, rooted in long histories of self-governance) or “processes of recognition since Contact” (i.e., bestowed by the U.S. government through treaties and other measures).168

I argue that these sovereignty struggles contribute significantly to Desert Rock’s emergent state. That is, negotiations of sovereignty, in the work of attorneys, policy

168 This is a broad characterization of the prevailing “two types of claims” generally made regarding tribal sovereignty (Cattelino 2008, 14).
makers, activists, elders, and tribal leaders, forestall the construction of the power plant, leaving it to hover as an ever-present absence, demanding the diverse modes of work (cultural production, knowledge and expertise, and subject formation) explored in subsequent chapters. Following some brief notes on a portion of the vast sovereignty literature, I move onto discuss the two circuits of sovereignty debates being produced by way of Desert Rock: the realpolitik or federal primacy circuit and the circuit of environmental justice activism. Following those discussions, I close with a consideration of Alice Gilmore’s politics of place as suggestive of an indigenous politics beyond sovereignty and, perhaps, beyond “politics” itself (de la Cadena 2010).

I. Discussions of Sovereignty

A. Native American/Indigenous Studies

Sovereignty is political in itself, but is political precisely because it is historical and relational. The history of anthropology in the U.S. has played a central role in this sovereignty drama, in that the history and politics of knowledge “about” the Navajo was, for many decades, a privileged space of representation. That is, anthropology and other social sciences claimed the epistemic space of speaking about, and for, “the Indian,” even “going Native” in uninvited ways (i.e., Frank Cushing and the Zuni Pueblo) to assert and prove a mode of epistemic authority. Today, epistemic authority is part of some Indian Nations’ institutions of self-governance (as discussed in Chapter I). The right to control knowledge production about Native peoples and communities – while challenged and contested – is embedded in sovereignty’s negotiations today and is part of the intellectual and political movement to “reclaim Diné history” (Denetdale 2007). This has been
achieved through bureaucratized, institutional mechanisms like issuing permits to conduct research on tribal territory, such as the initial Chapter Resolution and “Class C Permit” I had to obtain for this project. In a less formalized but equally regulating manner, Diné grassroots movements have also recognized these historical, relational infractions and uneven politics of representation by asserting control over knowledge production with mandates like, “We speak for ourselves.” This recursively pushes the anthropologist into an odd inversion of Spivak’s provocation, “Can the subaltern speak?” (Spivak 1988), making the ethnographer assume some of the alterity in these changing dynamics of power. Yet these reverberations of sovereignty through its ability to grant permission to speak (or write) are still very much located and situational. What the Navajo Nation requires of researchers is specific only to the Navajo Nation, and what environmental justice activists demand of their interlocutors is specific only to those particular relationships.

There is already extensive, insightful work in on these complex historical, relational questions in legal anthropology, American Indian law, and other interdisciplinary arenas, exceeding the scope of this chapter. Importantly, however, recent work by Native American and indigenous studies scholars, especially those working in anthropology and political science, debate sovereignty through situated examples,

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169 The Blue Gap/Tachee Chapter passed a Chapter Resolution on February 11, 2007 approving my project, which was then filed with the Navajo Nation Historic Preservation Department through which I obtained my Class C Permit for anthropological research on tribal territory. Notably, the boundaries of this Permit’s jurisdiction are geographically defined, covering my work anywhere on the reservation. However, it does not officially extend to research activities with Diné tribal members outside of reservation boundaries.

170 This statement is attributed by its Diné speakers to the Environmental Justice movement more broadly, and is often heard at wider, trans-national and trans-cultural gatherings of EJ activists. It can be traced in the historically to the First National People of Color Environmental Leadership Summit in 1991, when the “Principle of Environmental Justice” were established.
showing how contemporary tribal politics and everyday life are sites for working out new meanings of self-determination, citizenship, and nationhood. For instance, Audra Simpson argues that citizenship and nationhood cannot be understood only in relation to the state(s), but must be approached through narratives and experience (Simpson 2000). Her emphasis on experience “as method” brings discussions of bloodedness and belonging back into the realm of everyday life, positioning sovereignty within the realm of experience and intra-tribal dialogues. Defining sovereignty as an ongoing “process of negotiation,” Valerie Lambert also approaches sovereignty ethnographically, showing how Choctaw nation-building faced challenges of being one authority among many in a “landscape of multiple, overlapping, and competing sovereignties” (Lambert 2007, 211). Jean Dennison confirms this sense of “layered” sovereignty in the case of recent national reforms within the Osage Nation (Dennison 2008); and Thomas Biolsi underscores a similar sensibility with his concept of four types of indigenous political space, showing how American Indian citizens participate simultaneously in “multiple, imagined geographies,” complicating our notions of the modern nation-state as the singular model of political geography (Biolsi 2005).

Building on her work on Seminole gaming and sovereignty, Jessica Cattelino analyzes the “double bind of need-based sovereignty” facing Native Nations in the U.S. She shows how nations depend on economic resources for their sovereignty and, in doing so, often rely upon the federal government to provide those resources; yet once Native Nations demonstrate economic power, their sovereignty is often challenged (Cattelino 2008; Cattelino 2010). Her work importantly shows the intimate importance of economic resources to tribal sovereignty and the conundrum Native Nations face when they become
economically powerful, challenging durable stereotypes that would see wealthy Indians as a juxtaposition, rather than an emerging social and political reality. Also following this theme of the economic surprise, Courtney Lewis traces the boundaries of business and entrepreneurship among members of the Eastern Band of Cherokee Indians (EBCI), showing how EBCI sovereignty is, in part, constituted through the ability to perform indigeneity as a self-conscious economic strategy while also building small businesses to accrue economic power (Lewis 2010).

Kevin Bruyneel’s argument that American Indian sovereignty occupies a “third space,” superseding the temporal and spatial boundaries of the modern U.S. state (Bruyneel 2007), illustrates the overriding themes of ambiguity and spatial dislocation at work in recent theories of American Indian sovereignty. The indeterminacies of tribal sovereignty produce both resistance to and at the same time reliance upon the federal government and its regulations in its position of primacy over American Indian Native Nations (Cattelino’s “double bind”). Such is the conundrum of many Navajo tribal activists – both elected officials and grassroots leaders – who often change roles, moving from communities to the Council Chambers and back again, over the course of their diverse political careers. This problem means their options for official political recourse remain, as legal scholar Ezra Rosser notes, constrained within the parameters of the U.S. colonial structure (Rosser 2010). Taken together, all of these works point to what others have deemed the “ambiguous” nature of tribal sovereignty, exploring many of the ongoing “paradoxes associated with asserting tribal sovereignty within a colonial context” (Dennison 2008, 148). This approach situates tribal sovereignty as a relational and historical process, open to testing and experimentation.
Parsing sovereignty from the question of indigenous self-determination, sovereignty has other theoretical genealogies informing the intersection of cultural anthropology with Native American/Indigenous studies. In general, anthropology on the one hand has engaged sovereignty through the historical struggles between Native peoples and respective colonial-settler states, acting as an arbiter of such struggles at times as an aide to the state but, moreover, in an “activist” or “collaborative” posture in solidarity with Native communities, despite the persistence of uneven power relations. In fact, Eric Luke Lassiter argues that American Anthropology in Native communities has always been collaborative and largely “activist,” as ethnographers always worked with Native “interlocutors” and frequently intervened in more public (not exclusively academic) arenas to affect social change in tribal communities (Lassiter 2005).

Increasingly, critical anthropologies of the Americas take notice of other “American” histories of sovereignty struggles, reading autonomous politics through, for instance, the work of indigenous intellectuals like 16th century Guamán Poma of Peru, Frantz Fanon and Afro-Caribbean decolonization movements, the Latin American modernity/coloniality working group (Leyva Solano 2003), or more recently, “Neo-Zapatismo” (Juris 2008), and anti-globalization movements in Europe (Foucault 1977; Foucault et al. 1980, vol. 1).

B. Sovereignty through Foucault and Agamben

On the other hand, anthropology has recently approached the question of cross-cultural sovereignties through the theoretical influences of Michel Foucault and Giorgio Agamben, situating sovereignty discussions not only in terms of relating to or being a
state, but also in terms of the body and embodiment (see for instance, Farquhar and Qicheng 2005). Foucault challenged prevailing juridico-institutional models of power as the sole type of power, arguing that power was not repressive but productive, penetrating bodies and creating subjects (Foucault 1977; Foucault et al. 1980, vol. 1). In this sense, sovereign power is but one type of power, embodied in the image of a king or other head of state with the power to “let live and make die.” However the modern state, according to Foucault, operates on a biopolitical model of power, in which the state has the power to regulate and manage bodies, to “let die and make live,” through specific techniques targeting populations rather than individuals (Foucault 2003). Both political techniques of the state and what Foucault calls “technologies of the self” must be considered to understand how power operates; the sovereign has had his head “chopped off,” and is thus no longer the embodiment of state or “sovereign” power.

Agamben’s concept of sovereignty builds directly upon Foucault (and Carl Schmitt), arguing that the “paradox of sovereignty” is that sovereign power is defined by what it excludes. In other words, that which is “banned” or placed outside the juridical/sovereign order is included within that order, precisely through its exteriorization. This is the “relation of exception” defining and structuring sovereignty, which is, in his words:

“not an exclusively political concept, an exclusive juridical category, a power external to law (Schmitt), or the supreme rule of the juridical order (Hans Kelsen): it is the originary structure in which law refers to life and includes it in itself by suspending it” (Agamben 1998, 28).
The relevance of Agamben’s work for indigenous studies is just beginning to be addressed, directly. As Mark Rifkin’s work to “indigenize Agamben” argues, the “narration of Native peoples as an exception from the regular categories of U.S. law” reveals this “inclusive exclusion” of American Indians, making sovereignty an “enveloping yet empty sign” for American Indians that legitimates state violence through the very “peculiar” and “anomalous” role that Native peoples occupy within U.S. law (Rifkin 2009, 90, 115). And yet, while Rifkin’s reading of the exceptionality of American Indians forces a critical rethinking of the disjuncture of U.S. jurisdiction, it – following Agamben – does not move outside the category of the state to see how sovereignty has variable deployments in other areas of discourse and practice.

II. Sovereignty’s “Double Binds”

A. Navigating Federal Primacy

The “double bind” of sovereignty, as Jessica Cattelino argues, is a dilemma wherein that which allows certain projects is at the same time threatened when those projects are pursued. Most visible when this involves economic development, the double bind seen in Native casinos and gaming illustrates this dilemma: “American Indian tribes can undertake gaming only because of their sovereignty, and yet gaming wealth threatens to undermine that very sovereignty” (Cattelino 2010, 237). During the mid-century federal movement to “terminate” Nations’ political status, those tribes with strong economic development programs and a certain measure of wealth were prime targets for termination. For, as Cattelino and others (Bordewich 1996, Lewis 2010) have argued, Indians possessing financial security undermines fundamental American notions that
legitimate indigenous identities through poverty and dependency. In Elizabeth Povinelli’s argument, indigeneity is a dilemma of difference and “recognition,” which indigenous people are always pre-determined to fail because the “inspection regime of recognition” requires their extreme difference, but then cannot see such radical alterity; “because if indigenous peoples are fully understandable, then they are not truly different, and therefore any rights based on their difference are suspect” (Povinelli summarized by Cattelino 2010, 237).

Desert Rock enters these debates on difference and sovereignty, producing a space in which some old as well as some new double binds are being negotiated. Of course the power of energy technologies to mediate sovereignty discourse and practices is nothing new. As Chapters I and II demonstrate, the political identity of the Navajo Nation has been constituted, in large part, through a long genealogy of encounters with extractive industry. Navajo leaders (like Chairman Peter MacDonald and the formation of CERT) have acted entrepreneurially to advance tribal sovereignty through industry measures; this has been, throughout the 20th century, a history of activist and legal maneuvers. Many scholars address energy development projects on tribal territories as examples for understanding the limits and potentials of Native nation-building and tribal sovereignty today, importantly emphasizing increased tribal control and ownership over the retail and management of energy resources and waste (Bordewich 1996; TallBear 2000; Lambert 2007).171 Environmental decision-making – even “environmental

[171] For instance, the Paiute Nation’s ability to leverage water as a means of power in their business dealings with the Sierra Pacific utility company is illustrative of these engagements with capitalist projects (Bordewich 1996). Because their cultural-historic connection to a particular fish was proven, the Paiutes had control over the Stampede Reservoir, and therefore, decision-making power regarding a commodity desired by the regional utility. Control over water became power. Native nations’ claims to historical water
destruction,” as Rosser (2010) argues – is the prerogative of sovereign governments, negotiated through historically particular encounters with “outside” actors in the federal government and private sectors.

The power of Native Nations to act autonomously in large-scale energy projects like Desert Rock remains very much compromised, contested, and ambiguous, revealing how sovereignty is always negotiated and deployed in practice and discourse, in the U.S. and internationally. Again, this contested ambivalence suggests Agamben’s “relation of exception”: a form through which “something is included, solely by its exclusion” Settler colonialism has produced the conditions necessary for this relation of exclusion between the U.S. and American Indian nations, wherein the spatialization of the reservation maps both the inclusion and simultaneous exclusion of Native peoples. The ongoing, uneven historical relations of power between tribal governments and the settler state shape these negotiations, wherein the power of competing “sovereigns” is increasingly mediated through specific development projects, like Desert Rock. In these colonial conditions, energy development on tribal territory plays a pivotal role in the ongoing deployments of sovereignty, by a diverse range of actors.

On the Navajo Nation, sovereignty has been deployed vis-à-vis energy technology in the legal arena, especially when concerning the interests of corporations in extracting natural resources from Navajo lands. In 1985, *Kerr-McGee v. Navajo Nation* bolstered tribal sovereignty by confirming the Nation’s authority to tax business activities on the

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rights are becoming increasingly central in Southwestern tribal-state-federal natural resource politics. Stories such as these underscore my point that the energy-development nexus in Native communities is frequently – perhaps increasingly – negotiated through mineral extraction and energy resources.
The Kerr-McGee Corporation is a billion dollar energy corporation that led the way in uranium mining, oil, and gas exploration on the Navajo Nation (and in the greater Southwest) from the 1920’s onward, along with the Vanadium Corporation of America. Challenging the Nation’s right to tax their mining activities, the corporation inadvertently opened the way for the recognition of tribal sovereignty by way of taxation. The Possessory Interest Tax (PIT) in effect gives right to be on Navajo land performing a particular business activity, such as mining. The Business Activity Tax (BAT), on the other hand, taxes gross receipts on the sale of Navajo goods or services on the reservation. Following the PIT and BAT, the Nation enacted an Oil and Gas Severance Tax (or SEV), hotel tax, tobacco products tax, fuel excise tax, and sales tax. The Kerr-McGee case, along with similar legal challenges involving neighboring Native Nations, held that the "power to tax is an essential attribute of Indian sovereignty because it is a necessary instrument of self-government and territorial management." Such legal precedent made it possible for Native Nations to exercise greater agency in negotiating leases for mineral extraction, suturing sovereignty to land use. Yet, Native Nations’ own development projects remain subject to federal regulations, requiring negotiation to

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173 In fiscal year 2006, the Navajo Nation Tax Commission collected over $29 million in coal, oil, and gas revenues through the PIT, representing 34% of the Nation’s total tax revenue for the year. When the PIT is combined with the BAT and the SEV for 2006, 65.3% of total tax revenue collected comes from the Nation’s natural resource industry (coal, oil and gas, pipelines, and coal electric generation).

determine how these regulations are enacted in practice, with tribal lands “held in trust”
by the U.S. government.175

There is a tension here, however, in that at the same time the Navajo Nation
achieved new agency in levying taxes to exercise authority over the private sector, it has
also engaged an increasingly neoliberal flexibility to maintain a “business friendly”
environment, encouraging outside investment to counter some of the “internal
insufficiencies” described in the previous section. This has proved particularly relevant in
the case of mineral interests and energy development. Since the discovery of oil on
Navajo territory in the 1920’s (discussed in the previous chapters), this dependency on
mineral resources and extractive industry has fundamentally shaped the Nation’s formal
economy. According to one Navajo Tax Commissioner, “the Navajo Nation’s general
fund, historically and presently, is based solely on our natural resources industry … We
see ourselves as revenue generators, to be business friendly and keep the Navajo Nation
government running.” And specifically in regard to Desert Rock, the Commissioner
continued, “The tax agreement with Desert Rock is part of the lease agreement. We
believe [Desert Rock] is a viable project for the Navajo Nation.”176 As mundane as it
might appear, such tax law sets legal precedent for future deployments of tribal
sovereignty, shaping how the Navajo Nation exercises its sovereignty in cultivating new

175 Again, the complexity of this relationship cannot be emphasized enough. Technically, the U.S.
government is held responsible for any large-scale development on Native Nations’ trust lands, as it holds
the legal title to these lands and manages these lands through the Department of the Interior (which houses
the Bureau of Indian Affairs). The layers of interdependency in this relationship are thick and historical, the
arena of tomes of legal scholarship that exceed this discussion, but are notable in how entangled, mangled,
ambiguous, and misunderstood they are in practice.

176 Mary N. Etsitty, Executive Director, Navajo Nation Tax Commissioner, Panel at the 2007 Navajo
business partnerships such as the Desert Rock Energy Project, marking an historic move away from the leasing contracts that dominated corporate relations with the Nation until very recently. With the state of New Mexico standing strongly against Desert Rock – most recently, under the leadership of Governor Bill Richardson, former U.S. Energy Secretary under President Clinton – and with federal agencies still withholding some of the necessary permits, the Navajo Nation has been poised with Desert Rock to set a precedent for other Native Nations in terms of their freedom to implement development projects.  

A detailed review of the history of federal Indian law and federal environmental regulations as they pertain to American Indian lands exceeds the scope of this discussion, and has been well documented elsewhere (Voggesser 2010). At stake in these relational, power dynamics is that “federal administrative primacy largely defines the current environmental regulation of reservations. This is not to say that Native Nations and states play no role, but the regulatory framework is decidedly federal” (Rosser 2010, 503). Tribes lack the power to set their own rules in environmental regulation and protection, even when they may have their own tribal environmental offices, like the Navajo Nation’s Environmental Protection Agency (EPA). In this framework of primacy, Native Nations are purportedly treated “as states” by the U.S. through its agencies, such as the EPA, granting them equal status as states in being subject to federal permitting processes and procedures. Rosser notes this is largely understood as “enhancing sovereignty” of Native Nations by limiting the role that surrounding states can play in tribal decision-

177 There is a sense among many of the Navajo officials I interviewed that, because of the Navajo Nation’s demographic and geographic size and political power in Washington, D.C., other Native Nations will “look to the Navajo Nation” for models on their own development projects and tribal: federal relations.
making. Therefore, because Desert Rock is proposed for reservation land, the federal government has an “oversight role” as part of its trust responsibility, making the proposed power plant subject to specific federal laws, regulatory processes, and agencies.

Federal regulations and primacy are relevant to Desert Rock in at least three central ways: First, the National Environmental Protection Act (NEPA) of 1969 applies to Desert Rock because of the large scale of the project and the fact that the U.S. government has trust responsibility for the Navajo Nation lands. NEPA requires assessments of projected environmental impacts in any proposed development actions conducted by federal agencies. Because American Indian lands fall under the jurisdiction of the Department of the Interior (DOI), managed by the Bureau of Indian Affairs (BIA), the BIA is responsible for compliance with NEPA regulatory procedures and permits. Second, the Energy Policy Act of 2005 created Tribal Energy Resource Agreements (or TERA’s), granting Native Nations the authority to “review, approve and manage” business leases, rights of way, and leases for energy development on tribal land, without approval from the Secretary of the Interior (an amendment to the Energy Act of 1992). While on the one hand, TERA’s bolster tribal sovereignty by eliminating the need of federal agency (DOI) permission for a project, on the other hand, Native Nations must still apply to the DOI for a TERA, which must be in compliance with NEPA requirements. Third, because Desert Rock is a coal plant, it has to comply with the U.S. Clean Air Act and gain a Permit of Significant Deterioration (the PSD, or “air permit”) in order to be built. 178

178 Discussion based on several interviews with environmental policy specialist Mike Eisenfeld, Farmington, N.M., October 2008 and March 11, 2009.
Given these ongoing, contested matters of tribal sovereignty, we can begin to understand sovereignty itself as a process of emergence. Others argue this in different terms, but with a similar emphasis on the ways in which tribal sovereignty is never outside of uneven, historical relations of power and the contemporary nation-state, even when other geographies are “imagined” (Biolsi 2005). Therefore, legal deployments of sovereignty in which Native Nations are treated “as states” are still within the modern/colonial settler state – despite arguments that tribal sovereignty, historically, exceeds the temporal and spatial boundaries of the modern U.S. political system (Bruyneel 2007). Such contradictions and ambiguities abound in these purportedly “sovereignty enhancing” measures. In terms of mineral resources, the zenith of this tension is, as Rosser notes, the Indian Tribal Energy Development and Self-Determination Act of 2005, which claims to put greater decision-making power in the hands of Native Nations in terms of land management and energy resources, but still remains fully entrenched within federal institutions and environmental requirements (Rosser 2010, 504). Or, as Garrit Voggesser describes this “double bind”:

“NEPA [National Environmental Policy Act] required review of environmental, cultural, and other impacts of Indian energy leasing so the Interior Department and Native Nations could make informed decisions about development. However, the Interior Department’s dual role as a representative of the federal government and the trustee for Native Nations raised questions about objectivity. Whose interest was the Interior Secretary acting in? Moreover, did the large role played by the federal government in lease approval and environmental review encroach upon tribal sovereignty?” (Voggesser, 2010).

Such questions of objectivity, conflict of interest, and encroachment are precisely what help construct the complex landscapes of power on the Navajo Nation. Federal
primacy, tribal sovereignty, states’ rights, local chapter decision-making, corporate investments, transnational energy projects, and more, converge at the energy-development nexus, making these struggles over energy development simultaneous struggles over governance and recognition.

**B. From the State to the Self**

Desert Rock raises these questions, producing new borderlands of ambiguous authority and a new political space for challenging federal trust responsibilities – both in terms of federal primacy in environmental regulations and federal funding. For instance, Navajo Nation President Joe Shirley, Jr. challenges federal primacy in the question of Desert Rock’s future, by articulating sovereignty with “saving self”:

“This [Desert Rock] isn’t just about energy. This is about sovereignty. This is about saving self. This is about the Navajo Nation regaining its independence by developing the financial wherewithal to take care of its own problems. I have people dying every day because of poverty, alcoholism, drug abuse, domestic violence, gangs, and the U.S. Government is not there to adequately fund the direct service programs that cater to these needs” (Joe Shirley, Jr.).

The “self” to be saved in this positioning of sovereignty is a collective self – the population of the Navajo Nation with particular public health crises. The seamless move from energy to sovereignty to self sets up an argument that independence has been lost and should be “regained,” with Desert Rock as a hope to alleviate such suffering. In this calculation, sovereignty is deployed in such a manner that positions Desert Rock as an act

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of recovery, a technology with the power to heal the sickness and violence threatening the population.

Others similarly deploy sovereignty as contingent upon “developing the financial wherewithal,” though they may not see eye to eye with Shirley on Desert Rock. The articulation of sovereignty with economic development is, quite obviously, a core theme in energy development debates. However, political-legal recognition might be achieved, some argue, through other economic endeavors. When asked about Desert Rock, a financial officer for a tribal enterprise lamented the lost “potential” she sees in Navajo economic leadership. She spoke of the potential for sovereignty through tribal energy projects through a metaphor of physical strength:

“It’s a true exercise of sovereignty, if you are really going to go out there and flex your muscles and let corporate America take notice of who you are, that’s the level we need to be playing at … being able to flex your muscle and say, We’re going on the open market and selling our corn for this much. That’s the kind of sovereignty I’m talking about.”

It is common for tribal leaders, as well as grassroots activists, to concur that economic development is paramount for securing the Nation’s self-sufficiency. Recalling the Navajo Nation Economic Development Committee’s recent proposal to build a Wal-Mart in the central reservation town of Chinle, the Navajo Nation Vice-President explained that the plan had to be abandoned because of an existing “lack of electrical infrastructure to sustain a Wal-Mart warehouse.” While the Wal-Mart proposal was

180 Interview with Clarice Johns, Tsaile, AZ, July 16, 2008.

181 Interview with Ben Shelly, Window Rock, AZ, October 20, 2008.
debated in open letters to the Navajo Times newspaper as well as more academically at Diné Policy Institute conferences, little was discussed publicly about the interdependence of electrical grid infrastructure and new retail endeavors. Much of the debate centered around the ethics and values implicit in bringing a Wal-Mart onto the reservation, the jobs it might create, and the potential for keeping “Navajo dollars” on the reservation, rather than spending those same dollars at the heavily frequented WalMarts in Gallup and Farmington. But the materiality of this development question – the inability to construct a large-scale retail space because of insufficient power to provide lights, heating, and cooling – was on the Vice President’s mind, but largely absent from the public dialogue.

Again, through these debates over development and sovereignty, we see the myriad of connected actions required by power infrastructure to enable the existence of particular technologies. In the course of discussing Desert Rock as a possible infrastructure to advance sovereignty – and potentially power a Navajo Wal-Mart – the Vice President appealed to history in an unexpected way. He invoked the Navajo Nation treaty of 1868, yet not as a source legitimizing tribal sovereignty and authority, but as the institutionalization of a relationship of dependence:

“In the Treaty of 1868, the [U.S.] government came around and said: you sign this and I’ll take care of you -- your education, your health, and so on. Just lay out in the sun and we’ll feed you. Who is going to take care of you? BIA. Where are the laws and rules coming from? Congress, federal law and code. So it comes here to BIA and BIA carries it out to Indian Native Nations. And the policy was: We’ll take care of you, don’t worry about it. Don’t do nothing. You aren’t supposed to be self-sufficient. The laws are built that way. So what we are saying, me and the President, is we want our independence.”

182 Interview with Ben Shelly, Window Rock, AZ, October 20, 2008.
Independence, deployed in this manner of this leader, has pervaded discussions on Desert Rock among tribal members, despite the circuits of financing, transmission lines, regulatory processes, and other actions required for the power plant to come into being. Self-sufficiency and independence are, in this statement, are the good states of life, prevented by the failures of the federal government. He discursively positions being “fed by” the U.S. government as a relationship of passivity and being “taken care” of. Whereas the first tribal leader implicates the federal government for its failures “adequately fund” the services needed on tribal territory, the second tribal leader attributes the failures to a structural inequity, to policies and laws that effectively produced dependence. The accountant, whose comments are in between the tribal officials’ statements above, stirs the pot with the suggestion that it is recognition or “notice” by corporate America, the private sector, which will legitimate true tribal sovereignty. In all three cases, Desert Rock is the impetus for these ruminations; circuits of energy debates flow almost seamlessly into debates over independence. Yet in these statements, while independence may pretend to be the opposite of dependence, the two in fact travel hand in hand. As Cattelino and others have shown, sovereignty’s ambiguities are “more usefully understood as constituted by relations of interdependency than imagined to be based in autonomy” (Cattelino 2008, 199-200). Following Cattelino, interdependence does much more work toward understanding the complex, interpenetrations and valences of power in struggles over sovereignty.

From President Shirley’s claim that the stakes of energy are ultimately about “saving self,” to Clarice Johns’ claim that sovereignty is about being able to “flex your muscles,” to Ben Shelly’s assessment of the structural dynamics of power that inhibit
sovereignty and self-sufficiency, concepts of selves and bodies figure prominently in how independence is understood. These metaphors suggest the depth of feeling and passion involved in these debates articulating energy with sovereignty; these are not disembodied notions being worked out through abstracted policies, laws, and treaty rights. They are lived, deeply felt, and bear upon these (and many others) speakers’ senses of their own identities as Diné people and efficacies as a nation. This suggests some of sovereignty’s lived relationality, its experience and emotion, often obscured in its strictly juridical definitions. The multiple, overlapping interdependencies (federal government, corporate America, other tribal members) reveal how sovereignty itself – while appearing as a self-contained position – is enmeshed in networks of visible and invisible relationships.

At the same time they argue Desert Rock is a technology for tribal sovereignty, tribal leaders are paradoxically enmeshed in a trans-local network of interdependencies in which they must negotiate the Nation’s sovereign power. Since the formal proposal of Desert Rock in 2003, the vast majority of Navajo Nation Council Members have supported President Shirley’s unwavering commitment to the project, voting 66 to 7 in support of the power plant. Shirley ran and served two terms with Desert Rock as a core component of his campaign platform. From the Tribal Council’s perspective, federal law, embodied in environmental permits and funding shortfalls, stands in the way of Navajo independence. However, it is not only federal primacy that blocks this plant; there are other less-recognized entanglements and interdependencies: Desert Rock as proposed cannot be built without the Blackstone Group’s financing, the engineering and mining expertise of transnational energy corporations, the extended network of transmission lines through the Navajo Transmission Project, and the permission of grazing permit holders.
(usually women, as decision-makers in local land use) who live and herd sheep on the territory slated for Desert Rock and its ancillary facilities. Tracing one particularly contested document helps make these dynamics clear: the poetically named, permit of Prevention of Significant Deterioration (PSD).

Early in their joint venture, Sithe and the Diné Power Authority submitted an application for the PSD (also called the “clean air permit”), as required under the U.S. Clean Air Act. A PSD must be issued for the construction of any new or modified large-scale project that would impact air quality, setting limits on this pollution; in effect, the PSD ensures a technology the “right to pollute.” After months of pressuring the U.S. EPA to issue the PSD, Sithe and the Navajo Nation on March 18, 2008 sued the Agency for its failure to act on the permit in what they considered a timely fashion, resulting at last in the approval of their application on July 31, 2008. As of that date, Desert Rock seemed a certain possibility to project proponents, who celebrated securing this vital permit, one of the key roadblocks to starting construction on the plant. Many saw this issuance of the PSD as a last gesture of compliance with the energy industry under an outgoing (G.W. Bush) administration. Yet, as no victory is ever final, the PSD became volatile again following the change of the federal administration. With the November 2008 election of Barack Obama and new federal EPA officials appointed in 2009, it came as no surprise to many that in February 2009, the EPA remanded the PSD. Most activists opposing Desert Rock interpreted this action as a nail in the coffin for the power plant while project proponents described it as a “temporary setback” in the power plant’s construction. The PSD having slipped through their hands, the official statements of the Navajo Nation Council turned from criticizing federal government agencies’ blockage of tribal
sovereignty (through permitting processes like the PSD) to criticizing another “outside”
agent perceived as a “threat” to tribal sovereignty: environmentalism.

III. The Other Adversary: Environmentalism

A. Identifying the “Outside”

“In contrast ever before, environmental activists and organizations are among the
of agitation: environmentalists. With this discursive shift, Shirley and his administration
positioned sovereignty, self-determination, and independence as states of being already
existing (rather than states to be “regained” as in his previous statements), yet under
serious attack. Within hours of this public statement’s release on the internet, grassroots
groups issued their own counter-press releases and activist email list serves buzzed with
responses, challenging the President’s identification of who these “environmentalists”
might be, making their own statements about sovereignty, for different ends. As one critic
rejoined in a list serve email:

“Dissenters, critics, and issue oriented advocates should be a welcome and
integral part of an informed and functioning democratic society. Indeed, both
Hopi and Diné communities are made up of many Native American

environmentalists. Shirley would have us believe that anyone who stands in the way of his office's interests would be an opponent of his own concept of tribal sovereignty.\textsuperscript{184}

This was just one of numerous, incensed responses (made through email list serves, \textit{Navajo Times} editorials, press releases, and in everyday conversation) issued by tribal members in response to President Shirley’s statement, illuminating the contested meanings not only of what and who qualifies as “an environmentalist,” but also what qualifies as “tribal sovereignty.” In a related rejoinder, one activist expressed to me, “sovereignty doesn’t work both ways,” suggesting that the Navajo Nation should openly acknowledge its interdependencies with the “outside” developers and financiers that will make the project possible – just as some Diné organizations partner with “outside” environmental groups and attorneys collaborate to file Freedom of Information Act requests for copies of the water leases and other project agreements. Many Desert Rock critics see the lack of the tribal government’s acknowledgement of these “outside” interdependencies as unsymmetrical and untenable.\textsuperscript{185} Shirley’s discursive positioning of environmentalists as the only kind of “outsiders” and as “threats” to tribal sovereignty erases the many other alliances, technologies, and “connected actions” that a project like Desert Rock, or any sovereignty project in practice, requires.

To be sure, there are indeed many “outside environmentalists” who fail to understand the complex legal, political, and cultural dynamics of tribal sovereignty. However, as this discussion shows, it is not only “outside” agitators challenging projects


\textsuperscript{185} Interview with Mike Eisenfeld, Farmington, N.M., April 2008.
like Desert Rock. Navajo environmentalists – many of whom in fact reject the term “environmentalist” altogether – of diverse walks of life (chapter officials, grassroots leaders, non-profit organization employees, educators, and everyday tribal members) support tribal sovereignty and denounce Desert Rock. These complex subject positions are, however, off the radar in polemical positionings of “us” against “them.” Scholars who concur with President Shirley’s statement that “environmental activists and organizations are among the greatest threat to tribal sovereignty, tribal self-determination, and our quest for independence” also fail to recognize the complex politics and shifting positions of tribal members who work to oppose the power plant. Such critiques overlook the deep, heartfelt investments in independence and tribal sovereignty that are lived, embodied and practiced by many who are involved in these organizations. For instance, while Rosser’s argument that “environmental organizations that make use of federal environmental review processes are complicit in the systematic denial of Indian sovereignty that federal primacy entails” shows very well the double bind that activists know they are in, the statement fails to recognize the fundamental, underlying commitment to and active investment in independence – at the level of the Nation, and the household – valued by many tribal members and regional activists opposing Desert Rock.186

186 Furthermore, this sentiment is reminiscent of critics calling Leroy Jackson a “puppet” of outside environmental organizations in his struggle to stop the Chuska Mountain timber harvesting in the late 80’s and early 90’s, before he was murdered (Sherry 2002). Such broad generalizations fail to consider or give credence to Leroy’s own agency, vision, and analysis motivating his actions.
B. *The Movement Against Desert Rock*

So who are these “environmental activists and organizations” posing the threat to tribal sovereignty? And what exactly is their problem with Desert Rock? These agitators Shirley condemns are, in many cases, the elderly tribal members living near the proposed site. And they are also “outside” actors, as Shirley knows well, forming alliances with tribal members and tribal organizations, part of a much broader, trans-national movement against coal development and for renewable energy in Indian Country. Through environmental action – taken up in this chapter as the second circuit of sovereignty in practice – activists position sovereignty as their value, too, complicating easy, conventional characterizations of pro-sovereignty tribal leaders countering sovereignty-eroding, non-Native activists. In many encounters in which the controversy played out, the two sides were all Diné, frequently one another’s clan relatives, bound by cultural practices of recognition and respect, histories, and place-names inscribed in a common language. Still, there is a stark chasm between the two visions of technological futures.

Like any assemblage of dynamic politics consolidated and named “movement” for descriptive and analytic purposes, the movement against Desert Rock is internally diverse, involving multiple families, alliances, fractures, enduring struggles, and competing visions. To glimpse its history, I begin and end with the action of one particularly vibrant and visible leading elder: Alice Gilmore. She embodies the heart of the movement while at the same time she stands to the side of the movement, her politics exceeding what sovereignty, along with many of the other terms of the debate, can contain. She is central, and yet she also de-centers.
In December 2006\textsuperscript{187}, seventy-four year old Alice Gilmore helped launch a social movement. She was one of “the grandmothers [who] came forward,”\textsuperscript{188} constructing a road blockade and “resistance camp” along the dirt road that leads from the BIA highway to the proposed site of the Desert Rock Energy Project on the eastern edge of the Navajo reservation. In the bitter, high desert winter, Alice Gilmore joined Sarah Jane White, Lucy Willie, Molly Hogue, Anna Frazier, Pauline Gilmore, and Elouise Brown, among other Burnham area residents, keeping the fire burning all night long, huddling around the blaze in their parkas, scarves, and blankets, alternately ducking into the makeshift shelter or into someone’s running pick-up truck for a extra warmth. The \textit{Doodá (No)} Desert Rock Resistance Camp, as it came to be known, emerged as the primary site of direct action by these women and their colleagues (in addition to periodic marches in the capitol of Window Rock). A hand painted, wooden sign staked at the intersection of a BIA highway and an unmarked dirt road pointed the way to the camp site – a plywood, tire, and tarp-covered shelter attached to a small trailer, with a 15-foot wind turbine generating enough power to charge laptops and cell phones, essential tools for the activists based there and those passing through.

Although Gilmore and other voting members of the Burnham Chapter passed a resolution against having Desert Rock built in their territory, such a victory – as many activists considered it to be – was not without significant work on the part of local

\textsuperscript{187} In December 2006, I followed the unfolding of these events from a distance – watching the online Desert Rock blog, news stories, and engaging in email exchanges with Navajo contacts and friends who kept me abreast of the resistance camp and exploding controversy. I was in Chapel Hill, preparing to take my doctoral qualifying exams, yet already (electronically) engaged in the formative events that would define my fieldwork experience in the coming years.

\textsuperscript{188} Interview with Earl Tulley, Chinle, AZ, February 18, 2008.
organizers. Elder Sarah Jane White, who voiced her opposition to the power plant while serving as a chapter official in the neighboring community of Sanostee, remembers the early days of working to convince people of the power plant’s potential dangers.

“The worst problem that we had was in Burnham. There was a lot of argument. We argued against the power plant and the people – some of the people – argued against us. Why we are against the power plant, why we are against another possible job? They said a lot of good things will come out of this power plant for the people – jobs, a new chapter house, a new senior citizens center. The dreams went on and on. We argued with the council delegates, the chapter officials, we went through a lot with Burnham.”

White’s door-to-door organizing – in a landscape where “doors” are often dozens of miles apart – revealed that some families had already accepted $1,000 payments from the developers to “sign away” their livestock grazing permits. Grazing permit holders, who represent only 5% of the ~170,000 Navajos dwelling on the reservation, have tremendous power in land use decisions despite being a minority. The laws governing customary land use require that the Nation gain consent from a grazing permit holder for any project within the permit’s boundaries, much to the frustration of some agency directors who argue for stronger, more discernable “boundaries” in land management.

Concerned over what they felt certain were unequal negotiations in these grazing permit deals (dubious of the translation that took place with non-English speaking permit holders, the gifts and perks that families were offered, and the repeated attempts with elders who initially refused to sign), White joined with other women elders in late 2004.

190 Interview with Arvin Trujillo, Window Rock, AZ, October 13, 2008.
to form the Doodá Desert Rock Committee, with logistical support from longstanding tribal environmental network Diné CARE. By the following year, the group was issuing press releases, collaborating with video and photographic documentarians, circulating petitions against Desert Rock and calling for a comprehensive health study of the region’s population, launching a website with the assistance of a new cadre of youth activists, and appearing at chapter house meetings to speak (in Navajo) on the proposed power plant, which often involved debating Diné Power Authority (the Nation’s lead agency on Desert Rock) representatives at many of those four to five hour meetings.

Second only to health effects of mercury, nitrous dioxide, carbon dioxide, and other known emissions of a coal-fired power plant on what is already a “disproportionately impacted” population and territory, local activists’ concerns focused on the likely displacement of families living in the proposed footprint of the mine’s expansion and power plant facilities. Though the Draft Environmental Impact Statement (Draft EIS) on Desert Rock describes the terrain as rural and largely uninhabited, using words like “primitive” to describe the existing infrastructure, in fact, no fewer than twenty families and 25 square-miles would be dislocated by the mine’s expansion. Furthermore, such quantifications of impact cannot account for the cultural and historical meanings of displacement in Navajo memory. Many recall the

191 “Disproportionately impacted” community, as noted in the Draft EIS.

192 The Draft Environmental Impact Statement (Draft EIS) for Desert Rock was prepared by the URS Corporation, a transnational engineering design services firm and leading U.S. government contractor, headquartered in San Francisco. As the leading federal agency on the Desert Rock project, the Bureau of Indian Affairs contracted with URS to produce the Draft EIS. These relationships and the Draft EIS as a document are discussed in further detail in Chapter VI.

193 The Draft EIS describes the “primitive roads” of the proposed site (Rosser 2010, 492).
histories of federal programs of displacement and relocation that continue to haunt Navajo memory. In particular, the violent capture and federally-enforced relocation, or “Long Walk” of the Diné to Bosque Redondo (Fort Sumter) where they were incarcerated from 1864-1868; and just over a century later, the more than 900,000 acres re-assigned to the Hopi Tribe in the joint-use area agreement of the 1980 Relocation Act, resulting in numerous Diné families being forcibly relocated from the Big Mountain area of the reservation, though some continue to lease land from the Hopis or stay at their homes, refusing to leave. The history regarding displacement and relocation is so profound, its sentiments so pervasive, that some express “relocation as genocide.”

Institutionally, a tribal office still exists to manage the effects of displacement: The Navajo-Hopi Land Commission is tasked with “pursuing development to mitigate the adverse impact of federally-imposed relocation.”

The movement against Desert Rock, originating and still based in Burnham, is a contemporary expression of an enduring struggle over energy development on the Navajo Nation and in Burnham, in particular. The community has a long – if rarely recounted – history of resistance to coal gasification, discussed in the previous chapter and in further detail by Needham (2006). Spearheaded by the work of two Diné grassroots organizations, Diné CARE and Doodá (No) Desert Rock, the opposition to Desert Rock has involved litigation, direct action, benefit concerts, prayer vigils, petitions, media conferences, op-eds to regional newspapers, television and radio

194 Interview with Earl Tulley, Window Rock, AZ, October 8, 2008.
196 I use the notion of “enduring struggles” in the sense deployed by Dorothy Holland and Jean Lave (D. Holland and Lave 2001).
appearances, art openings, research and publication, and a broad alliance with other organizations of Diné tribal members working on environmental and social justice issues (such as the Black Mesa Water Coalition, C Aquifer for Diné, To’nizhoni Ani, the Just Transition Coalition, and Eastern Navajo Against Uranium Mining, among others), tribal leaders at the chapter level, and regional environmental organizations including the San Juan Citizens Alliance, Sierra Club, and the Western Clean Energy Campaign.

The “movement” against Desert Rock is constituted by a diverse range of actors – Diné and non-Diné – radiating outward from Burnham, acting at times synergistically and at other times, independently, depending on the particular action at a given moment: a Tribal Council meeting, a direct action at Blackstone offices in New York City, a public hearing on the Draft EIS, a television or radio appearance, a lawsuit, a panel at the U.S. Social Forum, a benefit concert, community education meetings, or a float in the Navajo Nation Fair, just to list a few instantiations. Pursing distinct activist strategies through inter-related yet different networks and alliances, Diné CARE and Doodá Desert Rock have alternately worked on Desert Rock through mobilizing their own expertise and enlisting the expertise of others – especially attorneys, scientists, doctors, environmental policy specialists, journalists, and researchers – thus deploying a wide spectrum of knowledge in their efforts to halt the construction of the proposed plant.197

197 The point here is to recognize that speaking of “the movement” is a self-conscious punctualization. In practice, it is a very loose assemblage of tribal members and non-Diné allies, operating in a dispersed fashion, with Diné CARE’s leaders working from their homes in Durango, Colorado, Dilkon, Arizona (where Diné CARE first formed, in the late 1980’s) and in Burnham, and with Doodá Desert Rock and its allies based at the resistance camp in Burnham, near the proposed power plant site. Thus, “the movement,” as such, is only made visible or coherent through its specific expressive practices and products, although it is widely associated with the resistance camp in the high desert of northern New Mexico, established by community elders in 2006.
The movement’s opposition to Desert Rock centers on several concerns. First, activists express primary concern over the health effects of mercury, sulfur dioxide, nitrous oxide, carbon dioxide, and other airborne contaminants known to be released from processing coal and already documented as a regional problem due to the two existing coal-fired power plants (San Juan Generating Station and the Four Corners Power Plant). These existing plants are both less than 40 miles away from the proposed Desert Rock site and draw much of their coal supply from the Navajo Mine, owned by Australian energy corporation BHP Billiton, and covering 33,000 acres of land in the northeastern corner of the Navajo Nation (just southwest of Farmington, N.M.) Thus, the Navajo Mine further contributes to the air pollution enveloping the eastern Navajo Nation and border town of Farmington. The Mine has accepted 50-65 million tons of coal combustion waste (CCW) over the past 35 years of its operation, placing this waste in un-lined pits covered with ten feet of topsoil. The Mine has no groundwater monitoring (for potential seepage from the un-lined CCW pits) and no treatment or regulation of the waste. Activists and attorneys working to stop Desert Rock and the related expansion of Navajo Mine see this as a triad of environmental injustices, including “solid waste issues, air quality issues, and the removal of tribal members.”

The removal of tribal members is part of a broader landscape transformation the Mine would affect, and is another central criticism of the movement against Desert Rock. Desert Rock would require a 25 square-mile expansion (17,000 additional acres) of the Navajo Mine in order to produce enough coal to feed Desert Rock as a “mine-to-mouth”

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plant. (In other words, the coal would travel minimally from extraction to processing). This expansion of the Navajo Mine would stretch from the existing dragline southward to Burnham, overtaking livestock grazing lands, gravesites, plant life, and other elements of the landscape holding cultural and sacred meanings for area residents. It would require that more than twenty Diné families be removed from their home sites and grazing lands.

Third, activists are concerned about the Nation’s limited ownership (25%) paired with high financial liability under potential federal carbon taxes and other costly externalities, which might render the $50 million in annual tribal revenue insufficient as new laws are formed to regulate carbon dioxide emissions. The Desert Rock facility’s use of 5,000 acre-feet per year of groundwater for coal processing is another core concern of area residents and the wider movement against Desert Rock. Finally, and in a manner that encompasses these and other critiques of the power plant, activists situate their opposition within a discourse of the unfairly “disproportionate impacts” already borne by residents of the San Juan region and eastern Navajo Nation. The geopolitical boundaries of tribal sovereignty, many activists note, have no bearing on the air and water pollution generated by 18-25,000 existing natural gas wells, (and plans for 5-10,000 additional wells), oil refineries, the two existing coal fired power plants, and a resurgence in uranium mining claims.\(^{199}\)

One of the more controversial elements of the proposed power plant is the amount of water it will use in coal processing and exactly where that water will come from. In this high desert landscape, water is always political, and never taken for granted. The Draft EIS states that the power plant’s “supporting facilities would include a well field

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\(^{199}\) Interview with Mike Eisenfeld, Farmington, N.M., April 2008.
that would draw 4,500 acre-feet of per year (af/yr) from the Morrison Aquifer for project-related purposes and an additional 450 af/yr per year for local municipal use, a water-supply pipeline from the well field to the power plant. Sithe installed two wells at the proposed site – a 5500-foot deep test well and a 4900-foot deep monitoring well – to measure impacts to the groundwater. However, opponents of the project argue that water will be redirected from the San Juan River to feed the power plant, straining an already over-burdened resource and diverting water from other, more urgent uses.

Finally, opponents of Desert Rock see their work as not only challenging further coal (and gas, oil, and uranium) development for the reservation but as advocating for a more fundamental technical, cultural and political shift towards a tribal “green economy.” Significantly, and unlike their predecessors of 1960’s activism in Burnham, contemporary Diné activists (and their broader allies) do not take a uniform stance against energy technology in itself. This is, of course, because technological landscapes have changed dramatically over the past fifty years, with what were then the nascent, fringe technologies of wind and solar becoming increasingly mainstream. Instead, the movement opposing further coal development today is arguing for the Nation to invest in wind and solar power on two scales. First, they advocate for commercial scale wind farms or concentrated solar fields to generate power for export, and second, for


\[201\] While harnessing sun and wind power are perhaps the oldest forms of energy technology, I describe them here as “nascent” and “fringe” in the mid-20th century because of the ways in which they were eclipsed by coal and oil development since the Industrial Revolution, making their return as natural resources through the medium of newly designed hardware in the latter part of the 20th century.
household solar photovoltaics, wind turbines and hybrid solar-wind systems to bring electricity to the 18,000 un-electrified homes (out of 48,000 total homes) across the reservation. This dual approach addresses the need for tribal revenue as well as rural electrification of Navajo homes – the latter often being left out or included only secondarily in coal proposals such as Desert Rock. Given that it costs the Navajo Tribal Utility Authority anywhere from $20,000-$30,000 per one mile of extended transmission lines to bring electricity an individual, rural homestead (like the one I lived in during my fieldwork), renewable energy activists know that they must “leapfrog” grid dependence and push for non-grid tied, autonomous energy systems. Some are also proposing larger-scale solar power projects, for exporting electricity. The report, “Energy and Economic Alternatives to the Desert Rock Energy Project” discussed in detail in Chapter VI, maps this vision of a different landscape of power for the Nation.

Many tribal members express this vision in the language of constructing a “green economy” on the reservation, ranging from manufacturing renewable hardware and supporting small businesses, to developing education programs on energy efficiency, weatherization, and conservation. Some have aspirations involving commercial-scale wind farms or concentrating solar power troughs as replacement technologies for the aging mines and power plants. The idea of “greening” is, of course, part of a much broader, circulating, global discourse concerning the design and management of labor, production, consumption, and exchange practices. Now very much en vogue to “be green,” corporations (such as Sithe Global) and political bodies (such as the Navajo Nation) engage a shared lexicon of “responsibility” and “sustainability,” making it often difficult to discern the politics underlying these discursive claims. As the “green
economy” is often more of a strategy to reduce harm than undertake any fundamental structural change, it is still entrenched in a historically neoliberal argument that “the market” holds the answer to social and environmental problems.

Yet, the specifics of “greening” the Navajo Nation economy, as set forth by its proponents, is intimately tied to an ethics of advancing tribal sovereignty, imbuing this shade of green differently than in many broader sustainability debates. Proposals set forth by Diné activists working against fossil fuel development and for renewable energy in fact go beyond “energy” as it is normally imagined. Their vision is not just about electrical generation, but about the renewal of community economies as a way to strengthen self-sufficiency, through diverse projects related to food and agriculture, small business development, education, and health care. Their plans include maps for wind and solar manufacturing facilities on the reservation as job creation strategies and economic diversity, as well as mandates for fair wages, the revival of small-scale farming and traditional agriculture, job training and local business ventures. To advance wind and solar power on the reservation, activists are working with private enterprise, national non-profit foundations, as well as the tribal government, frequently traveling between these seeming disparate sectors.

This work of building alliances with formerly unlikely allies further challenges prevailing notions of who is on the “inside” and the “outside” of the imagined boundaries of the Nation’s sovereign space. For instance, while the collection of tribal and non-tribal organizations known as the Just Transition Coalition pressures a California utility (Southern California Edison) to reinvest funds from the closure of one of its power plants in Nevada into wind and solar development on the reservation, tribal officials in the
Cameron Chapter partner with developers to research the viability of a wind farm in that community; and while Diné CARE circulates a report detailing plans for large-scale solar trough development on the reservation, a largely Diné youth-led movement for “Navajo Green Jobs” has an office in Window Rock and voice with the tribal administration. The shifting locus of action in energy activism blurs the boundaries commonly associated with social movements and activist identities.

Along these lines, contemporary Diné social movements tend to critique their own tribal government, but at the same time are also deeply invested in Navajo tribal sovereignty. Many of the Navajo grassroots environmental organizations critique state power and policy in its multiple, overlapping layers: the tribal government, the governments of the states in which the reservation is located (New Mexico, Arizona, Utah), and the federal government. In this way, it is impossible to talk about movements critiquing or taking on “the state” as has been done in classic formulations of resistance in social movements studies. Rather, the geopolitics of Navajo environmental activism is plural – interfacing with multiple, overlapping jurisdictions spanning from the local chapter house outward to the United Nations and other international forums. In other words, activists are not mounting movements to take over governing power and in many cases, they are already instantiated within the arenas of tribal governance. The chasm associated with many expressions of non-governmental politics does not always hold, in Navajo activism. It is not uncommon for a leading activist or community organizer to become Chapter President (as in the case of Ed Singer), or even to run for Vice-President of the Nation (as Earl Tulley of Diné CARE did in 2010). Navajo environmental movements are interfacing with multiple states, with differing degrees of power and
authority, at times enlisting state offices and employees in their efforts to thwart existing tribal proposals and at other times, enlisting tribal officials in efforts to write new tribal proposals. In most instances, the federal government is the greater adversary, its legacies of colonialism, assimilation and termination policies as well as its political enabling of transnational corporations (e.g., Peabody Coal Company) to do business on reservations without full disclosure or adequate royalty agreements is widely recognized. However, at other moments, the federal government (through its agencies) is enlisted as an ally to Navajo grassroots movements who turn to NEPA, the EPA, the DOE, and other federal agencies in efforts to challenge tribal environmental and economic development policies. Thus is indeed the complex “double bind” facing movements – at the same time it faces tribal leadership – who because of colonial logics and legacies, must work both within and against the constraints of the state. Following Rifkin, this tension (the “state of exception” for Native peoples, in his analysis) is not a matter of indigenous difference, but rather a matter of indigenous polities being “subjected to the superintendence of settler state regimes” as domestic dependents – a veritable “marker of enforced structural relation” (Rifkin 2009, 112). In other words, the interdependency is structured, historically and legally, making indigenous difference political more than ontological in Native relations with the state.

202 See Rosser 2010.
IV. Beyond Sovereignty

A. Energizing Understandings of Legitimacy

Other tribal members involved in the work to stop Desert Rock shared with me their understandings of sovereignty, in each case relating sovereignty to emergent energy development projects, but taking their interpretations in other directions, as well.

“Sovereignty means that you have a right to do whatever you want to without interference from outside – that’s what it means. Just like freedom. Freedom ends when it infringes on the rights of people. Sovereignty is the same thing. When it fails to deliver, the wants and wishes of the people, that’s when it fails. The only thing that people can see is money. And it fails that. Environment is very important to us. We have to have that, a good environment for people to live. We should not sacrifice these things at the expense of getting more money. I think that’s what the [Tribal] Council needs to understand … Desert Rock is a test of Indian culture. How when they say, ‘sacred things, sacred mountains, sacred earth, the air and so forth’, like that, to see what do they mean. Sacred only to them? If they desecrate it for themselves, it’ll be alright, but if it’s an outsider, then it’s wrong? This is a test of that … And then we do a thing like Desert Rock. What we complain about, we’re doing it in the name of sovereignty. This is what the world is looking at.” 203

“It [sovereignty] encompasses everything. It’s somewhat holistic. There is that cultural piece of it as well. That perhaps is what slows down a lot of the modern progress, if you will, because we still want to hang onto what our cultural teachings are. But at the same time, we are living in the 21st century and we need those electrons to energize our homes. So you have to look at it and weigh the issues and that’s what sovereignty allows you to do – is to choose.” 204

“So that’s sovereignty to me, that’s what it is – that bubble that we live in – the four sacred mountains. Within those sacred mountains is where the law, the law that was given to us, the Fundamental Laws. So we live by that within these mountains. To me, that’s sovereignty.” 205

203 Interview with Harry Walters, Cove, UT, June 18, 2008.

204 Interview with Deborah Tewa, Phoenix, AZ, January 23, 2008.

205 Interview with Anna Frazier, Dilkon, AZ, June 13, 2008.
“What I believe is that the notion of just an intimate few are speaking for it and all we need is one to tip the scales of sovereignty to its true definition. Even if the Tribal Council says we are exercising sovereignty, what that means to me is that they are cashing in … There are two different notions here: The sovereignty of a government is what is written in the text of Title 2 [of the Navajo Nation Code], of how the government was recognized. The sovereignty of the people is an unwritten text. It is the natural law. That is the conflict.  

This selection of statements defies closure and cannot be easily put into a tidy, cogent discussion of core themes or concerns. This dynamism is precisely their power. This discussion starts to move us away from the realpolitik understandings of legitimate authority and tribal sovereignty, and into a realm of politics that goes beyond sovereignty. Each speaker articulates an alternative source of legitimacy within the concept of sovereignty, energizing how we imagine sovereignty’s historical and relational power, being worked out through contemporary energy debates. In other words, as we spoke about Desert Rock and energy development, each speaker situated sovereignty as possessing a deep source of authority and legitimacy, exceeding status quo, juridical understandings of sovereignty most often under negotiation in tests of “federal primacy.” These four statements disagree, even contradict one another on several levels. One way most relevant to this discussion lies in where the individual is positioned as a sovereign actor, vis-à-vis a wider collective. While the first two speakers position sovereignty as “freedom” and “choice,” the latter two position sovereignty within “Diné Fundamental Law,” the Diné concept of ethics that prevails in many of the public debates over energy development (discussed further in the next chapter). While all four speakers challenge the primacy of federal definitions of sovereignty, situating sovereignty within

206 Interview with Earl Tulley, Chinle, AZ, February 18, 2008.
specific indigenous landscapes of power (specifically, the “four sacred mountains”), the 
latter two assert the primacy of a Diné ethical code, countering the first speaker’s 
“freedom” with a sense of moral injunction. Realpolitik notions of sovereignty are still 
present, but do not dominate these interpretations.

I put these reflections on sovereignty into conversation to show the internal 
diversity of perspectives – voices of an educator, a tribal employee, a nonprofit 
employee, and a solar engineer, respectively – and to raise core questions concerning 
bases of authority for action that challenge conventional understandings of sovereignty. 
Each discursively links sovereignty with differing modes of power: natural or 
Fundamental law, electricity, individual choice and freedom, the sacred mountains, and 
Diné identity. These competing, alternate sources of power and authority are also what is 
at stake in the Desert Rock debates, though largely obscured by the political techniques 
and debates over federal primacy and tribal self-determination. This discussion has aimed 
to show how sovereignty as understood through the emergent object of Desert Rock, is 
instable, in flux, flowing through various circuits of meaning, contradictory, and – most 
importantly – itself a complex and emergent process. However, for some like Alice 
Gilmore, it is not at all central to what is at stake.

B. “Life Itself”: Grandma Alice’s Politics of Place

Alice Gilmore has been particularly vocal that the Navajo Coal Mine, the heart of 
Burnham’s energy potential should not mandate razing her family’s sheep camp. Her 
attachment to this particular place suggests a way in which independence, and 
interdependence, are understood through the land itself, through memory, knowledge,
and material practices such as herding sheep, collecting herbs and medicines, bearing children, and burying relatives.

Ms. Gilmore’s home place and grazing land lies just south of the mine, in a territory she calls Ram Springs Valley. This is the same area slated for the mine’s expansion, known as Area Four North by the U.S. Office of Surface Mining (OSM). I arrive there with Mike, an environmental policy specialist and regional activist, to participate in a teach-in of sorts, organized by Diné CARE activists for a group of environmental journalists visiting from the Pacific Northwest. We arrive early, walking around the empty wooden corral and crumbing sandstone house, noticing flecks of jasper and mica, barbed wire and bone shards exposed and glittering in the midday sun. There is horizon in all directions. Soon Dáilan, community organizer with Diné CARE, and his mother arrive in a large white pick up truck and we unload folding chairs for the elders and help stake an easel into the hard-packed earth. Ms. Gilmore, her daughter Bonnie, other Diné CARE members, and the journalists arrive within a few minutes, gathering together with their backs to the gusting wind, listening as Dáilan sketches the footprint of Desert Rock on the white easel paper, explaining how the mine expansion will absorb the very ground we all sit upon.

No longer physically able to herd sheep on this grazing land, elderly “Grandma Alice,” as many relatives and friends affectionately know her, lives with several generations of family at her husband’s farm in Fruitland. Their home and farm lie less than twenty miles away from her sheep camp and the proposed Desert Rock site. I visit her there one afternoon in June, finding the family farm just six miles down the road from the main entrance to the Four Corners Power Plant, where pick-up trucks pull speedboats
on their way for recreation on the power plant’s cooling pond, “Morgan Lake.” The high desert landscape is challenging to navigate; I use the landmark her daughter Bonnie gave me on the phone to locate their unmarked driveway: three oil derricks, all pumping. Lined by a row of apricot trees, the farm is growing corn, squash, melons, and beans and turkeys – enough to feed their family, Bonnie tells me, and then they’ll give away and sell the surplus. Looking to the northeast, I see the three fuming smoke stacks of the San Juan Generating Station, and realize that her family’s farm is the verdant epicenter of a landscape of existing and proposed, oil and coal operations – two juxtaposing projects of extraction and production.

Entering Ms. Gilmore’s cozy, wooden home, one unadorned bulb dangling from the ceiling on an exposed wire, I notice an assortment of framed pictures on the white-washed wall: a young man in military uniform, girls with bright bows in their dark hair, a painting of the Last Supper, and several calendars, all open to the month of June, bearing the logo of BHP Billiton, the mining company Ms. Gilmore and Bonnie are fighting. Ms. Gilmore is seated on a blanket bed, wearing a bright blue shirt and a wide-brimmed straw hat despite being indoors, cradling a skein of green yarn and crochet needle in her skirted lap, her thin legs suspended off the side of the daybed, not quite touching the floor. Bonnie and I sit on the small loveseat facing her mother, the boundaries of interviewer/interviewee quickly blurring, as she helps me interpret and ask questions of her mother, interjecting her own recollections, frequently interrogating her mother directly in Navajo, withholding any translation and leaving me to wonder. Bonnie introduces me to the young grandchildren that dash through the living room and greet us in Navajo (“they are fluent because their grandmother raises them,” Bonnie explains),
sharing colored popsicles with us on their way to play outside. Bonnie worked for twenty-one years as a truck driver and heavy equipment operator at the Navajo Mine, one of very few women employees among over 600 men. In addition to Bonnie, Ms. Gilmore’s son, two in-laws, and three grandchildren have also worked for the mine, even as she helps lead the movement to shut down the nearby power plants and prevent any new beeshii kó’í tsoh, or “big stoves” (Navajo translation of power plant) from opening.

The mining company’s presence is part of her family’s everyday life – from wall calendars to paychecks – and now is a political problem she works on by speaking out at chapter meetings, on television, at protests in Window Rock, and in the tribal newspaper.

Ms. Gilmore recalls decades ago, when the mine was small and didn’t intrude on her land, then remembers how it grew and soon, people were talking about a new power plant. Bonnie didn’t know her mother was involved with a coterie of local elders who were talking about the company’s plans until she saw her mother on the evening TV news during the December 2006 road blockade and resistance camp, talking about the new “big stove” planned for the area, surrounded by people protesting on her behalf. This was when the Gilmore sheep camp became a “big, important issue,” made more spectacular by the shooting of one of Ms. Gilmore’s sheepdogs, violence that she and others attributed to the Navajo police as they patrolled and restricted access to the resistance camp. Ms. Gilmore also lost four (pregnant) cows during that time, because she was cut off from her animals beyond the police lines. She became active at the

207 Interview with Alice Gilmore and Bonnie Wethington, Upper Fruitland, N.M., June 29, 2008. All translations of Ms. Gilmore’s statements are by Bonnie Wethington, June 29, 2008, except where noted.
resistance camp because of her family’s intimate, intergenerational connection to the land itself. Bonnie explains:

“It was her daddy’s land. Her father’s mom gave birth right there. They came back from Bosque Redondo, from the war, and were given two sheep at Fort Defiance. They gave birth to a little girl right there. That became her father’s mother. She gave birth to a boy there, named David, and he became her dad. Me, my mom, David, and David’s mother were all born there. Four generations since Bosque Redondo”.208

The memory of the war (the forced relocation and four year incarceration of the Navajo people at Bosque Redondo from 1864-1868) shapes the way that Bonnie and her mother perceive and value their sheep camp home still today. These memories and attachments to place, in turn, shape the understanding of Desert Rock’s threat (confirmed by the effects of the existing power plants) to these longstanding attachments, memories, and experiences of particular ways of living. Explaining how she noticed that the “sky was changing” above her sheep camp in Burnham and her husband’s farm in Fruitland due to pollution from so many aadoole’é (or “developments”)209 in the area, Ms. Gilmore’s voice crescendos:

“I don’t think we are ever going to see the vegetation, rain, ponds, and green leaves again. We’re not going to go back, just forward, to a direction where there is no life around the area. An example is that when we plant, it [corn] can’t grow anymore. Way back, you’d put in the seed and it would grow, because the soil was moist, we had a lot of rain. But now, the cornfield is so poor, it needs water

208 Ibid.

209 Translated here as “developments”, the word aadoole’é can also be translated as “things” or “objects,” for instance, “a building or other structure whose name is unknown. Navajo-English translation by Alex Mitchell, Chinle, AZ, October 15, 2008.
to have some life in it … So I don’t want this power plant to be built.”

Several times, she remarked on the absence of prairie dogs and rabbits, specific vegetation and rain, noting these changes over a fifty-year period of living at the home site. She also noted the absence of men in the early movement against Desert Rock, suggesting many had died from working in the uranium and coal mines but also arguing that it’s “women’s business and not men’s business to be community leaders.” Bonnie agreed, and in the polyvocal dialogue that this interview had become, intervened with her opinion before her mother could respond:

“It’s ‘cause the men work for the Nation, and the women are fighting the Nation, because the Nation is embedded [sic] and buddies with Sithe Global, and Sithe Global has made partnerships with the Navajo Nation and some of the men are working for the Nation. And the women are fighting for the land and so the men don’t come to the meetings. So it’s kind of a battle between the women and the men. The women are fighting for the land and the air and the children, but see it’s women’s business also to – let’s see, let me ask my mom.”

Bonnie then poses the question about women’s activism to her mother, dialogues with her mother in Navajo, then translates her mother’s response in a way that is an affirmation of her own insight that this issue is also “kind of a battle between the women and the men,” phrased in the language of caring for life (iinâ), blood (dil), and home (hogan):

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211 Interview with Bonnie Wethington, Upper Fruitland, N.M., June 29, 2008.
“Women’s business is the household, around the food, the children, their health, their clothes, and we’re very intimate with the ground and life itself and life sources (iina) and nurturing our children, so we fight for that part. That’s where the woman’s job is and what her business is. But the man he don’t know these things, he just goes and runs outside and takes care of business out there. But us, we’re different, we have to fight for our kids and raise them and feed them … A healthy family has a healthy blood flow (dil). Life is us women’s care. Our hogan, our iina and our kids, our blood flow. This is what women have to think about. We are protecting these things.”

Taken together, Ms. Gilmore’s reflections – the place of four generations of birth, the changes in the ecology and agriculture, and the active leadership of women in managing the land and blood flow of the family – point toward a gendered politics of place grounded in the land, in “life itself and life sources.” She does not mention sovereignty, yet her reflections suggest an ethic of self-sufficiency, protection, and interdependence. In this formulation, the issue at stake exceeds the conventional geopolitics of sovereignty and economic development, localizing the debate within the particularities of her home place, saturated with memories and the everyday practices of cultivating and protecting life. The articulation between women and the environment falls in line with the strict, gendered dualisms in the division of labor observed in many traditional Navajo households and embedded in traditional narratives of Diné gender, discussed elsewhere (Denetdale 2006). Yet, as Ms. Gilmore theorizes from her life experience and acknowledges a fundamental, material connection between women’s bodies and the land as the basis for her grassroots political action, her analysis also performs a central tenet of ecofeminism and feminist political ecology (Mies and Shiva 1993; D. Rocheleau, B. Thomas-Slayter, and E. Wangari 1996).

212 Interview with Gilmore, June 29, 2008, translation by Bonnie Wethington; translation confirmed by Alex Mitchell, Chinle, AZ, October 15, 2008.
Her politics of place is visible through non-electrical means of production, extraction, and reproduction: childbirth, agriculture, and the labor of caring for children, animals, and land through the space of the household (*hogan*) and decision-making surrounding land management. Grandma Alice’s and her daughter Bonnie’s criticism of the energy landscape in which they live and their work to stop Desert Rock – despite their intimate proximity to and financial dependence on existing coal operations – suggests how intimate interpenetrations of power affect their vision of self-determination and a self-sufficient life for their family. For Ms. Gilmore, being beyond sovereignty means ensuring “life itself” (*iiná*), which can include a range of seeming contradictions: lobbying the mining company to employ her children and grandchildren, while at the same time working to stop the mine’s expansion and the new power plant; or rejecting a change to the landscape she has known by any technology – coal power or solar power – arguing that any new *aadoole’ê* (“developments”) are not wanted.

She never raised the topic of sovereignty. Then again, as a Navajo-only speaker, she would not speak of “sovereignty,” per se, given that there is no clear translation for the English concept, with its long French history\(^\text{213}\), into Navajo. Researchers at the Diné Policy Institute took up this problem, conducting focus groups and a conference with Diné elders, scholars, ceremonial practitioners, lay historians, Navajo Nation judges, and students to explore how “sovereignty” might be thought and practiced “in Diné terms”. The concept has no smooth Navajo cognate, they concluded. In the place of sovereignty, she speaks about other values and other stakes, associated with “life itself.” Ms. Gilmore pushes the edges of the debate on Desert Rock, showing how the space for interrogating

\(^{213}\) See Dennison 2008 for a history and etymology of (European notions of) sovereignty.
meanings and producing new interpretations bleeds beyond existing terminology of the
debate itself, exceeding the well-trodden paths of “the political” in energy controversies.

Conclusion

As an emergent object, Desert Rock has produced a space for new deployments
and meanings of sovereignty to be negotiated. At one level, the debate over Desert Rock
calls upon the long, complicated history of realpolitik understandings of sovereignty: that
is, sovereignty is relational and historical and in a “double bind,” relying upon at the
same time it challenges U.S. federal primacy. Tribal officials and grassroots activists
engage this interpretation of sovereignty, as they both argue for how the Nation might
best develop its potential for more independent power – materially and semiotically.
While some tribal leaders deem environmentalism as the biggest “threat” to tribal
sovereignty and independence, the work of tribal members engaged in so-called
environmental issues and critiques of Desert Rock shows that this movement does not lie
“outside” the geopolitical boundaries of the reservation, but is very much constitutive of
the internal diversity and political action of the Nation itself. At the same time,
sovereignty as a category begins to come apart, when tribal members reflect on energy
issues and deploy sovereignty in relation to development challenges in general, and
Desert Rock in particular. Sovereignty is deployed as “freedom” and alternately, as
“natural law,” suggesting choice and restraint, within broader, invisible, even sacred
networks of responsibility, thus challenging the rigorous realpolitik definitions.

This suggests that sovereignty (like environmentalism, and like this dissertation in
many ways), is itself a “purification,” in Latour’s sense of the word (Latour 1991). That
is, the concept tends to obscure negotiations and struggles over meaning, hybrid and subjugated knowledges, and the histories of a broad range of actors involved in making the category of sovereignty appear stable. This approach does not negate sovereignty’s urgent, political importance, or the high stakes for Native Nations in advancing tribal sovereignty within the uneven, colonial dynamics of U.S. power. What recognizing sovereignty as a purification allows us to do, however, is to see how sovereignty is always about dependencies and interdependencies, involving experiences, narratives, and actors that normally lie beyond the purview of juridical debates on the matter. Ms. Gilmore’s desires de-center the power of sovereignty to define the debate in its totality. Sovereignty is crucial, essential, and pivotal for the Navajo Nation; and yet, the emergent object of Desert Rock has produced reflections, like Ms. Gilmore’s, that exceed the normal terms of polemics. What she is talking about goes beyond known definitions of the concept of sovereignty, suggesting an ethical positioning we have perhaps not yet seen, or described. And this positioning is not pure, but hybrid; she wants mining and power plant jobs for her children and grandchildren at the same time she wants the existing power plants shut down and no new “big stoves” to be built. She hangs the mining company’s calendar on her wall at the same time she refuses any more visits from the company’s representatives. We have to consider other relationships than those of the state, which sovereignty implicitly and explicitly privileges. We must consider the landscape, the wider ecology, the family, and the subject, herself, as a way of being in a place whose future is up for debate.

The question becomes how to construct sovereign power; not only through litigation, policy, and permitting processes, but through the built environment itself.
Family farms like Alice Gilmore’s are one such practice of building sovereign power, growing food for local consumption and limited distribution, as are the efforts of social movement groups like the Navajo Green Jobs Coalition. The ongoing Navajo Agricultural Products Industry, recently constructed tribal casino, and new tourist attractions in Monument Valley are other installations of possible sources of power, in the form of tribal revenue. In the energy landscape of the Navajo Nation, alternate sources of sovereign power are also being imagined through wind turbines and solar panels. Many are increasingly positioning such infrastructure as ways to achieve self-reliance at the level of the household and the Nation. These technologies however, like coal and the Desert Rock Energy Project, have their own legacies and uncertain futures, and will have their own implications for sovereignty’s many interdependencies.

The ways in which high-tech solar, wind, and coal projects are being deployed as mediators of these dimensions and politics compels a closer reading of the smaller artifacts Desert Rock is producing. Creative arenas of cultural production generate artifacts that engage the techno-logics and cosmo-logics of energy along different routes, yet still contributing to this affective genre. As the debate over Desert Rock unfolded, becoming increasingly complex in its implications for tribal sovereignty and related issues, energy events began to appear on and off tribal territory that contributed to the growing language of Navajo energy politics, pushing the debate beyond the shifting indeterminacies of sovereignty. Desert Rock is indeed leaving a trace of artifacts and the next chapter zooms in on specific works of art that envision subjects and landscapes of power through the spectral nature of past and future energy development.
Interlude 3: The Artist and the Wind Farm

President of the Cameron Chapter community on Western edge of the Navajo Nation, Ed Singer is also a renewable energy activist, cattle rancher, professional translator, and painter, who has shown his works from New York City to Paris. I first met Ed in the summer of 2007, when we were up to our elbows in mud and straw, helping construct a family’s straw bale house in the reservation town of St. Michael’s, not far from the Catholic church by the same name. As we plastered an adobe wall, he told me about his efforts to construct a 500-megawatt wind farm in his home community, describing the project as “prophetic.” The following spring, over greasy eggs and weak coffee at the Navajo Nation Quality Inn restaurant, Ed shared the controversy behind the proposed wind farm: the tribal power authority was attempting to establish their own wind farm at Gray Mountain, usurping the project from local control.

Nearly a year later, we meet again, this time at a remote gas station on Highway 89, a pit stop for tourists heading to and from the Grand Canyon to pick up sunscreen, potato chips, souvenir baseball caps, and fill their tanks with some of the most expensive gas in the state. Ed assures me my four-wheel drive Jeep can make it out to the nearby project site, though he gestures toward open pastureland with no visible road. He wants to show me an anemometer, a measuring device installed over a year ago to record wind speed and direction, collecting data for a study that will be used to determine the feasibility of placing a large-scale wind farm on the rugged, largely uninhabited
monocline known as Gray Mountain and Additional Hill. It is springtime and windy, though thankfully we are far west of the seasonal Chinle sandstorms, blizzards of fine-grained matter that can make the central region of the reservation impossible to navigate, even for longtime residents. Ed draws a map in my notebook, explaining the volcanic history of the Grey Mountain region, sketching lava flows and seismic shifts with the confident hand of an artist, landscape knowledge of a rancher, and urgency of an activist-turned-politician who has led the movement for localized energy production and consumption in his rural, windy community.

Gray Mountain rises slowly and is stopped only by the blue horizon; there is no sign of a way in or a way out. Large stones are scattered among the sagebrush and twisted remains of juniper trees now vanished. Again, I search for a path, thinking I must be misreading the terrain, unable to see what Ed sees, a rutted path or sheep route perhaps, something that my tires can hold onto. “We just go across it,” Ed assures me, pointing with his mouth toward a formidable and endless expanse of open range. “Your truck’s got four wheel, it’s a V-6 – it’s no problem. Just go real slow and exactly where I tell you.” We set off into the landscape, to my eyes more of a moonscape, its ecology alien and understated, striated by ancient igneous outcrops and ravines that appear out of nowhere, as the monochromatic earth suddenly gives way to drops not evident from a distance. There are no power lines out here, no windmills marking livestock wells, and no roads. Soon, I see a house – a white, wind-beaten trailer with two weather-beaten pick up trucks outside, a small wooden sheep corral, and a ground-mounted solar PV array wired to a fifteen or twenty-foot small turbine, spinning furiously like a child’s pinwheel in the gale force gusts that rush across the plain. “People live out here …” I mutter aloud,
unsure if I am making a statement or asking a question. “Yeah,” Ed replies, “that’s the Joe family. They got that system through the chapter some time last year. They can run a TV, small refrigerator, couple of lights, maybe.”

Another twenty minutes of pitching and lurching and then the deep chasm separating Gray Mountain from Additional Hill comes into view and with it, the mountains themselves. The two formations are made distinct by this separation, a finger canyon that traces the history of the Grand Canyon, just a few miles to the northwest. (Living here, I’ve learned to read the landscape in cardinal directions, natural, and human-built formations – pinnacles, gas stations, mesas, and broken fences). As my mind adjusts to see these as two distinct mountains rather than one expansive plateau, the sky no longer dominates the land and the terrain becomes more variegated, distinct, and discernable. I realize we have driven far enough that the highway has disappeared, leaving me utterly dependent on Ed and his knowledge of this place if I ever hope to make my way out. I understand now why the proposed project may require helicopters to transport the hardware to the windiest sites. Overhead, electrical transmission lines stretch east to west, reminders that the infrastructure to carry power from a wind farm to regional markets already exists. We reach the anemometer, a sleek metal tower secured to the ground by four taught cables, and Ed checks the meter, which has been recording wind data for over year. He adjusts his wide-brimmed hat loosened by the wind and shows me how to read the wind speed information, numbers that contain his hope for transforming this open landscape into a platform for wind turbines, generating local power in the form of electricity and in the form of community management of a
development project. “Like Desert Rock,” he tells me, “this is all about local control and consent.”

As we make our way slowly off Gray Mountain and back out to the paved road, the land’s inaccessibility and covert side canyons make this monocline feel like a distinct location, set apart from the Diné homesteads, souvenir trading posts, and RV traffic on Highway 89. Ed’s recent history of the mountain confirms this distinction: a pioneer doctor once owned this land. Recently, after failed attempts to sell the property, the doctor’s family estate gifted two forty-acre plots to the Cameron Chapter for “sustainable or green development,” setting in motion the local movement to develop a wind farm. Yet despite the doctor’s claim to the place, Navajos knew the mountain as Dzil Joobai – which Ed translates as “mountain of providence, help or mercy” – because of the many wild foods, game, and medicines found here. As I navigate boulders, I try to imagine the life he describes. Ed explains: “When there was sickness, the people would move up there to recover from diseases and epidemics. Now its gonna provide electricity.”

The Cameron Wind Project is a wind farm proposed for an area known as Grey Mountain, within the jurisdiction of the Cameron Chapter of the Navajo Nation, just southeast of the Grand Canyon. The residential, small-scale, hybrid solar-wind generator systems like the one on the Joe’s trailer number around one hundred in the Cameron area, installed by the Sacred Power Corporation in Albuquerque, with funding for a hundred more. The Gray Mountain anemometer, on the other hand, conjures a larger scale of harnessing wind energy primarily for transfer to regional urban markets. Some electricity will be consumed by area residents, contingent upon the extension of distribution lines and the transformation of a pump station once used for coal slurry from Black Mesa into
a sub-station for renewable power for local families. Ed’s struggle to “localize” wind power production through a project owned and managed by the chapter instead of by the central tribal government became an energy justice movement in its own right, correlating to the action in the Eastern Agency surrounding Desert Rock in terms of its critique of tribal governance and politics of local recognition.

Moreover, the Cameron Wind Farm struggle became emblematic of one of the deeper stakes underlying Desert Rock and other energy development debates on the Nation: the question of ownership and recognition. More precisely, it is a tension between nurturing decentralized community economies while building a strong, sovereign tribal government. For leaders like Ed, it is a literal and figurative contest between centralized and decentralized power. Like the public hearings on the Desert Rock Draft Environmental Impact Statement and Diné CARE’s Alternatives Report, the Cameron Wind Farm struggle galvanized the renewable energy movement on the reservation, despite measures of immediate “success” in establishing alternative energy projects. It, too, has been a site for constructing new meanings through energy technologies and the imagined worlds those technologies signify. Questions of fiscal management, ownership of wind data, joint venture structuring, grandstanding by elected officials, re-apportionment of community borders, and local accountability conflated to make the wind farm proposition fertile ground for the political ecology of technology to take shape.

For Ed and others at Cameron, being recognized as local authorities, enlisting their own experts and producing their own knowledge, and claiming ownership on a local development project was tantamount to their struggle; so much so, that the wind turbine
itself (or the anemometer awaiting replacement by the turbines) fades into the background as the arbiter of justice. Instead, as with the events defining the Desert Rock dispute, the imagined wind turbine (or the proposed coal plant) works with its advocates and opponents to assemble a particular concerned public, but then dissolves into its immateriality. It is both there and not there, a negative presence of one possible future, competing for existence amidst the contingencies of trans-local finance, political will, movement charisma and expertise, electrical grid infrastructure, legal uncertainties, and ecological calculations.

On another occasion, wielding a paintbrush rather than a wind speed meter, Ed greets visitors at the “Reunion of the Masters” gallery opening at the Gallup Cultural Center. While working on a small canvas secured to a wooden easel, he explains how the Boston-based wind developer working with the tribal power authority is now courting the Cameron community, promising vague “benefits,” while the Phoenix-based developer enlisted by Ed and the community has a clear plan for royalty payments, potential local ownership, repairing earthen dams containing water for livestock, and establishing a nonprofit entity which will install smaller, regionally dispersed turbines to generate power strictly for local families. But the wind farm’s future is not stable. Many Cameron residents have expressed concern over potential suffering that could be caused by harnessing air, one of the sacred elements, and fighting over something “laid down by the Holy People” which ultimately cannot be owned. Despite his determination to see the turbines erected, Ed acknowledges that such technologies engage certain liturgical and philosophical understandings of wind, recognized through a blessingway ceremony they
held on the mountain at the outset of the feasibility study. Nonetheless, he assures me, “Grey Mountain will eventually be developed. It’s just a question of who gets to build it, what it looks like, and who is in charge. This is precedent-setting and history making.”

After I study his several paintings on display at the Cultural Center, Ed shows me a photograph of his newest rendition of Gray Mountain. *Annunciation* is a six- by ten-foot oil canvas, painted with geological accuracy, an isolated cloud in the painting’s upper left corner recalling an airplane’s explosion over the Mountain in 1957, when Ed was a child. Hanging in the wind farm developer’s home outside Phoenix, the painting depicts Ed’s knowledge of this landscape, now contested by competing movements for renewable energy, which at their core, are struggles over ownership and recognition.

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214 Navajo philosophers, other researchers and ethnographers have pointed to the inextricable, intimate connections among wind, land, and words in Navajo philosophy (Sherry 2002; McNeley 1981; Farella 1984; Kelley and Francis 1994). For instance, “It is only by Holy Wind that we talk,” said a Navajo elder to Sherry (Sherry 2002, 78). Wind, or *nilch’i*, is understood to be the breath that animates all life, given by the *Divin Diné’e* or Holy People. It is said that the wind that animates life is visible in the whorls in one’s fingerprints and in the dust storm funnels (or “ghost riders”) that twist and gallop across open vistas.

215 Interviews with Ed Singer, Window Rock, AZ, April 4, 2008; in Gallup, N.M., June 2, 2008; and in Cameron, AZ, July 13, 2008; Public presentation by Ed Singer at the Navajo Studies Conference, Shiprock, N.M., March 13, 2009.
Chapter V: Artifacts of Energy Futures

As an emergent object, how exactly does the Desert Rock Energy Project and energy activism more broadly, produce stories that inhabit their audiences? How are new publics assembled and mobilized, new landscapes imagined, and possible futures rendered? Through what practices are energy politics formed and transformed through the figure of Desert Rock? These questions drive the dissertation’s remaining chapters, each of which elaborates a particular way in which energy development proposals are made “real” through the work of those invested in their future. This chapter traces Desert Rock’s productivity through the expressive practices and cultural artifacts the debate is generating, with primary attention to paintings, photographs, and cartoons, and secondary attention to television broadcasts and political slogans. (Note: all of the images are included in sequence as numbered figures at the end of this chapter, their numbers noted in the text where relevant).

These material objects, and the expressive practices through which they are made, in turn texture the energy activism surrounding the Desert Rock controversy, working visually to the figured world (D.C. Holland et al. 1998) and its wider publics of energy politics. Specific futures are being materialized and mobilized through these objects, movements made visible, and a creative genre of energy politics is being produced.

Attending to the expressive practices and artifacts of a controversy is a method of making emergent entities visible. Expressive practices include the knowledge-practices of
movements, yet are inclusive of non-textual products as well. While recent approaches to knowledge production (including my own) have importantly focused anthropology’s attention on the publications and other written products in non- or quasi-academic arenas of knowledge work, such approaches remain largely logocentric with a blind spot to non- or trans-textual arenas of knowledge practice. Going beyond written text, expanding our focus to include silent media – visual artifacts, in particular – opens up new possibilities for seeing and hearing other epistemologies and critical voices, and with these, other modes of knowing, being, and doing.

The tangibility of this dialogue, read through its objects, shows how the controversy over the proposed power plant generates figured worlds of dystopia and utopia – contrasting futures dependent upon the same technologies. Careful consideration of how the future is being imagined and materially rendered in the present sheds light on the politics and aesthetics of development from the perspective of differently located actors, united in their mutual investment in the future of energy on the Navajo Nation. Specifically, this chapter addresses how contemporary Native artists, activists, documentarians, and satirists have expressively responded to the Desert Rock Energy Project proposal and broader energy development debates in which it is implicated. The performative politics surrounding Desert Rock has generated visible demonstrations, including direct actions, parades, music concerts, art shows, rallies, cartoons, fashion shows, and other creative actions, producing durable artifacts as well as a collective aesthetics of energy activism, shaping how the future of the landscape, people, and technology is imagined and read through material objects in the present. As signs, these artifacts refer to stories and histories that shape collective understandings of colonialism,
energy histories, and Diné identity; at the same time, these artifacts suggest a critical politics and knowledge that is not always, or perhaps ever, understood as such, explicated, or widely disseminated.

Following my historical approach to energy activism that considers tribal members, non-governmental organizations, and tribal leaders as part of a broad, diverse, anti- or de-colonial movement for new modes of energy independence on tribal territories – even when various actors’ interpretations of sovereignty, environmentalism, and sustainability conflict and diverge – I do not consider the artifacts and expressive practices of energy activism to be limited to a sterilized domain of the grassroots opposition to Desert Rock. As Chapter II argues, the work of Navajo energy activists is diverse and interpenetrating, complex and shifting – with tribal leaders, grassroots leaders, and energy entrepreneurs working at times against and at other times with one another (and themselves altering positions, over time) to advance a new politics and infrastructure of independence for the Navajo Nation. Yet at the same time, the prolific expression of the opposition cannot be denied; the movement against Desert Rock and for renewable energy technologies has undertaken a wide array of spectacular, creative, and material methods of making their politics visible, deploying these objects and events to garner attention and force action within and beyond the Nation’s geographic boundaries. Therefore, this chapter primarily addresses the projects of energy activists working to block Desert Rock, yet also gives basic consideration to the project proponents’ expressive practices and artifacts, as these are part of a critical dialogue with the opposition.
The chapter is organized around a discussion of several types of trans-textual, aesthetic and political artifacts central to how the future of energy is being performed, or staged, on the Navajo Nation: the painting, the photograph, the political cartoon, the television talk show, and the bumper sticker. These objects work together to display, or make visible, particular contours of subjectivity and place as they are mediated by the Desert Rock controversy. These objects and their makers further populate the “crowded field” of interpretations of Desert Rock, offering a narrative of energy development that draws upon, but also departs from, the story of Desert Rock told by policy experts, tribal leaders, scientists, and non-governmental organizations. I show how these artifacts, while addressing the pivotal future of Desert Rock and specific conditions of the Navajo Nation, are at the same time part of – and informed by – a broader, national aesthetics of indigenous art addressing energy development in Native communities. The circulation of these works and the artists who create them constitutes a network of expressive practices, constituted by nodes of pluricultural encounter and objects addressing energy development on tribal territory, generating a critical knowledge of the particular, often hidden histories of energy development. At the same time, these objects posit alternative futures – utopias and dystopias – doing the imaginative work necessary for their creators and audiences to envision how technoscience is forming and transforming their landscapes, communities, bodies, and identities. The political significance of these objects is their ability to summon new audiences and stories, transmitting knowledge about places, people, and the problem of power that offers a counter-narrative to dominant energy stories told by project proponents. The chapter concludes with a summary overview of other spectacles of Desert Rock, in which adversaries and allies,
alike, are intimately bound by a shared, dialogic politics of self-reliance, despite their
divergent views and differential amount and forms of power to shape precisely how such
a future should be built.

I. Painting Energy Futures: The Spectacle of Two Art Shows
   A. Connections: Earth + Artist = A Tribute Art Show in Resistance to Desert Rock

   In late 2007, a call went out inviting submissions of artwork in any medium for a
special art installation focusing on Desert Rock. The show, Connections: Earth + Artist
= A Tribute Art Show in Resistance to Desert Rock, opened at the College’s Center for
Southwest Studies in June 2008 and ran until early October of that year, then traveled
onto the reservation town of Shiprock, New Mexico the following year for a showing at
the Navajo Studies Conference. Held on a warm afternoon in late June, the opening
reception for the show at Center for Southwest Studies displayed new paintings,
sculpture, photographs, poetry, and mixed media pieces by primarily Diné artists. The
show drew more than seventy-five people, including prominent grassroots activists from
the organizations Diné CARE and Doodá Desert Rock, along with professors, students, a
reporter from the Durango Herald, the contributing artists, and Durango residents. With
the air quality of their Four Corners area increasingly yellow with smog, many people
living in Durango have been active opponents of the proposed power plant, citing its
estimated carbon dioxide and other emissions as unacceptable in a region already
disproportionately burdened by the energy industry. Thus, Connections: Earth + Artist
was held on sympathetic ground, several hours’ drive from the reservation capitol of
Window Rock. Unsurprisingly, no tribal leaders or Desert Rock developers were present.
Walking among the pieces, some hanging and others installed on pedestals in the room’s center, I was drawn to three paintings in particular. Their vibrant colors, stark dystopias, presentation of the human (and quasi-human) figure, and rendering of the northern New Mexico landscape were gripping. Each reworked familiar tropes of indigeneity, modernity, and the Western frontier with keen, critical attention to the actual and imagined effects of the energy landscape on its inhabitants. In each image, Desert Rock is implicated as background, a haunting presence not actually visible in the painting, mimicking the spectral, emergent nature of Desert Rock in debates on the power plant outside of the art gallery. In each, the effects of energy infrastructure are made visible in disfigured bodies and ruined landscapes, with transformation of the subject and landscape working as dominant themes in these dystopias. In what follows, I offer brief readings of the paintings by Navajo artists James Joe, Ed Singer, Gloria Emerson, and Venaya Yazzie, illustrating this theme and its centrality to the movement opposing Desert Rock.

Welcoming the predominantly non-Diné audience, curator Venaya Yazzie recalled her inspiration to design this show. “I was inspired by attending the Navajo Studies Conference last Fall where I heard about the Desert Rock issue, and then by going out to the Doodá Desert Rock camp site [in Burnham] and meeting the local elders who were in resistance and who were fighting so hard.” With several academics as well as several of the Burnham leaders in the audience, including Elouise Brown of Doodá Desert Rock and Dáilan Long of Diné CARE, the exhibit expressed a response to this local knowledge production work; that is, Yazzie’s curatorial work dialogued with the activists who inspired her, several of whom now attended the event that visualized their
critiques. This degree of recursivity and dialogism, to once again draw on a major theme in Bakhtin’s work, is prevalent in the crowded field of Desert Rock – with artists, activists, writers, politicians, scientists, and others responding to one another over the proposal’s duration, their interactions producing new cultural artifacts and critical discourses on energy development.

Taking the “Best in Show” award, the painting “Bleeding Sky” [Figure 4] by Diné teacher and muralist James Joe, makes visible some of these interdisciplinary activist dialogues. Joe claimed this position – stating that his painting was in response to a global and local crisis: “Something has gone wrong on this earth. We are now looking up Mother Nature’s skirt.” Interpreting this crisis as a gendered act of impropriety and exploitation, Joe introduced “Bleeding Sky” in the language of transgression and reversal – of defiling the subject position of Mother Nature and thus the authority of this subject in Navajo ethics.

Joe’s painting juxtaposes conventional images and scripts of Navajo identity (the sheep, the turquoise jewelry, the wide-brimmed hat) with an unexpected backdrop of energy infrastructure framing a recognizable Navajo family relying on life-support devices such as oxygen tanks and facemasks. The landscape is a barren expanse littered with rocks, tires, bones, its horizon of defoliated trees dominated by two transmission towers and smoke stacks of a distant power plant. The turquoise lines demarcating four quadrants of the painting evokes the sense of the four sacred directions (the South, in particular) and their related colors, but is interrupted by the thicker, descending lines of red, indicating the “bleeding sky” of the work’s title. The vacuous stare of the mother and indiscernible expressions of the father and children suggest an erasure of the Navajo
subject – a subject arguably erased, already, by over a century of staid and staged photographic portraits; yet this time, the erasure is done by a Diné artist, who produces a sense of absence and by obscuring the individuals’ features. The father clutches a white sheep and on his lapel, wears the seal of the Navajo Nation, suggesting he might be a member of the Tribal Council; his faced is whitened, racializing the protagonist of development projects like Desert Rock. The mother/father-wife/husband pair is shadowed by red outlines of their bodies, suggesting that only a trace of their former selves remains or that their usual places have been transformed.

In his artist’s statement, Joe acknowledged the tropic reversals he was playing upon, particularly the durability of early 20th century representations of “picture-perfect” natives (in the genre of famous photographer of the Navajo, Laura Gilpin), juxtaposing the human with the non-human, and life with death. Describing the dystopia of Desert Rock, his statement reads:

“This is a worst-case scenario of what might happen if a coal-fired power plant were to be built here. This is not a pretty picture because what is about to happen is not going to be pretty. The painting has multiple meanings. A once proud Laura Gilpin picture-perfect ‘Enduring Navajo’ family stand alone against change. They stand with their backs against the two giant metal monsters looming toward them. Who is the man with the evasive red eyes and no ears to hear our voices? He is too white, but wears a tribal seal. The woman sees all and sees nothing. Our children, our future, seen but not heard. It’s bad enough they only speak English now. We once lived in accordance with nature, today we are way off center. Change is good but the negative outweighs the positive. Jobs will be made available to a few but we will All be subjected to the aftermath. Future generations will condemn us for a problem they will have to solve. Not only humans, but species in the ecosystem. No to Desert Rock!!”

216 James Joe, Artist Statement, Durango, CO, June 22, 2008
Joe’s admonition that we will be condemned by future generations of humans and non-humans invokes a sense of the apocalyptic. His primary focus is on the projected transformation of the Navajo subject’s ability to sense, and thus comprehend. Unable to truly hear, to see, to breathe, to speak the Navajo language, or live “in accordance with nature,” the Navajo subject would be changed in a fundamental way by energy development. The slippage between past and present in his statement (i.e., “what might happen” versus “today we are way off center”) speaks to the ambivalence many people feel about the degree of threat embodied in Desert Rock given the difficult conditions that many tribal members face, already. Extending his analysis, the dystopia promised by Desert Rock is not so temporally distant, but is already unfolding through the ongoing losses and erasures marking Navajo experience today.

Visualizing the dystopia of Desert Rock by invoking the past rather than the future, Ed Singer’s painting, “Dear Downwinders,” [Figure 5] critiques Desert Rock by way of memory – reminding viewers of the legacy of uranium mining and nuclear testing in the Southwest. Living as “downwinders” from the U.S. government’s nuclear weapons test sites in Nevada, Navajos (and other inhabitants of the region, as well as many of the lower ranking military personnel themselves) were subjected to radioactive exposure without any prior, informed notice. Singer’s contemporary critique of energy development is thus part of longer history of Navajo people and lands being subject to colonization, national security strategies, and technological experimentation. Ed Singer said this of his work:

“To artistically communicate on a broad scale, I must borrow from the dominant culture, the familiar visual idiom of representationalism. In order to effectively communicate, especially to the dominant culture, MY own ideas, I have to be ‘on
the same page,’ artistically. And if the dominant culture, the colonizers, wish to understand and engage in a meaningful dialogue, then they must make an effort to educate themselves about prevalent issues. They need to view things from a post-colonial perspective. I hope that my work makes the audience re-think their ideas about colonizer/colonized; oppressor/victim; documentarian/object; museum/artifact; as well as artist/model. The immediacy of the painted surface, the directness of an incised line are the most basic arteries of communication. More open and honest than history books, more revealing than the artificial cloak of so-called civilizations, painting and drawing are a necessary and viable tool today if we are to move forward into the future as we would like to envision ourselves. Native Americans need to reappraise their roles if they want to be taken seriously as thinkers and doers.”

The color yellow, vibrant and dominating the painting, invokes “yellowcake” – the brilliant shine of uranium when it is mined. It also suggests radiation, emanating from the mushroom cloud in the distance, casting streaks of yellow and red across the torso (more accurately, into the body) of a downwind man, identifiable as Diné by his turquoise earring and especially his tsiiyeel, the customary hair bun, twisted and wrapped with string, worn by many Diné men and women. Appearing to brace himself against the blast, the figure’s face is turned away from the viewer, gazing instead at the source of the radiation. Like James Joe’s absent subjects, this downwinder’s specific identity is concealed, or erased and his body is being remade by the effects of energy conversion, only in this image, the change is more subtle than in Joe’s family portrait; radioactive isotopes threaten to transform the body of this downwind cowboy without him, or the viewer, seeing any immediate change at all. The landscape, rather than explicitly barren or decayed as in Joe’s painting, is ephemeral and transitory, locatable only by the faint suggestion of a mountain peak on the horizon – possibly, Mt. Hesperus, the Navajos’ sacred mountain to the north. As such, it is an uncertain landscape, unrecognizable and

dangerous.

At the gallery opening in Durango, Singer told me he made this painting some months before Yazzie and the Center for Southwest Studies sent out the call for Desert Rock pieces. He had been working already on several pieces concerning uranium mining, at the same time he was working on developing a wind farm in the Cameron Chapter where he lives and where, later that year, he would be elected Chapter President. Singer’s energy activism cut in multiple directions: he worked to stop Desert Rock by participating in events like the art show and attending rallies and meetings, while at the same time became more involved in large-scale wind power development as an alternative economic strategy. He deployed the canvas and the turbine as technologies for re-imagining the Navajo landscape, countering dystopias like the nuclear landscape wrought by upwind military testing as depicted in “Dear Downwinders” with more utopian visions of an alternative energy landscape under local control.

Gloria Emerson’s painting, “Rock Desert” [Figure 6] inverts the name of Desert Rock in its title and in the text inscribed in the image, underscoring the perception of the northern New Mexico landscape that has underpinned the discourse of the Desert Rock proponents, developers, and even the Desert Rock Draft Environmental Impact Statement. Imagining the region as barren and empty – indeed, as a “rock desert” – as opposed to inhabited by families, sheep, and vast desert ecosystems – makes it more plausible to propose building a third coal fired power plant in the region. The anonymous black figure in the center of the painting is armless and headless, evoking death and despair, ambiguously suggesting the human and non-human residents of the proposed site. Its distended belly conjures malnutrition and/or pregnancy, simultaneously evoking
sickness and life. This figure’s identity is the most erased of the three paintings being considered; its erasure of Navajo identity is overwhelmed by its utter absence of human identity. In the distance, the rising peaks of the Shiprock formation are barely visible through the blue and yellow haze, yet prominent enough for anyone familiar with the terrain to situate this image in a specific landscape. Otherwise absent of any visible energy infrastructure, the landscape is dominated by an open road on which the figure (and its shadow) stands and is marked with a red bull’s eye, suggesting the site proposed for the power plant. Blue hills stretch beyond view in all directions, evoking the monochromatic expansiveness of the badlands territory.

Emerson’s “Rock Desert” is one example of her broader body of work on Navajo landscapes. Using sand, paint, and poetry, she follows the “tactile traditions of sand painting,” Emerson has created many “personal place myths” that acknowledge, but do not correspond with, traditional Navajo oratory (Emerson 2003, xiii). Understanding Emerson’s transformation of Navajo landscapes through these works of art like “Rock Desert” – and the “place myths” they create – requires seeing the “hidden” dimensions of landscapes; that is, reading the land not only on its surface, but through its subterranean potentialities – the very dimension that gives rise to energy development. In the Preface to At the Hems of the Lowest Clouds (2003), Emerson writes poetically of her visual emphasis on the Hidden Landscapes of Navajo territory:

“We race through this land deaf to the echoing sounds of history, glacial grinding within the stomachs of mesas, jungles drying up like rattlers in the Bisti, embattled reptilian monsters gasping for air in the bowels of the lava lands. Rock fracturings recall the violence of meteors slamming into Arizona and grotesque mammals running as shadows in howling dust storms. / And we ignore the spirituality of place and the orthographies layered millennia upon millennia, ignorant of the wisdom that walks in the mountains, of knowledge that runs in
the canyons, of stories that run like rivers” (Emerson 2003, xv).

This meditation is a reminder that landscapes bear visible and invisible realms and histories that weave geologic time with mythical memories and languages. Inasmuch as we are “deaf” to these histories, we also cannot hear or see the knowledge that inheres in the landscape (in its mountains, canyons, rivers), independent of its human inhabitants. When we consider Emerson’s “Rock Desert” against her earlier meditation on hidden landscapes, we are called upon to listen to, and enter into the painting in a new way. We move into its metaphysics. The undulating blue hills appear now to contain histories and knowledges not readily apparent; the jagged Shiprock formation on the horizon is a reminder of the Jurrassic period in which it formed, co-existing with forms of life as alien to the viewer as dark, disfigured body that appears to walk the empty road. In sum, read against her broader body of work on Navajo landscapes, “Rock Desert” offers critical commentary not only about the proposed coal-fired power plant and its potential effects on the place Emerson calls home (Shiprock, NM), but offers a dense vision of the mysteries of geologic change and the cultural, intellectual (and not only ecological) losses that are sustained when these hidden elements are transformed.

Finally, Venaya Yazzie’s mixed media work, “Homecoming,” depicts a subject whose face is transmogrified by the stacks and curling smoke of a power plant. [Figure 7]. The subject is recognizable as a Diné woman by the skirt, silver belt, hair in a tsiiyeel, and turquoise earring. Her politics is made evident by a small sign on her left collar reading, “Doodá Desert Rock!” Yazzie does not paint a landscape outright, but intimates ecological change through red clouds – or hills – the ambiguity of these formations suggesting a simultaneously polluted sky and earth. Also a poet, Yazzie inscribes verse
onto the subject’s chest, further intimating a landscape of contamination and death: “She walks in pollution / mercury breath trails her / CO₂ aura / Our lady / shrouded in nitrogen / oxide sits on brittle / earth and scrapes dry / dust pebbles digging for / clear H₂O water, sky …”. This dystopia is thus read through the body of the subject, a figure indexing both the anonymous Diné woman as well as the supreme Navajo deity, Changing Woman (Asdzáán Náádlehe), through the stars that form her skirt and the address “Our lady,” in the poetic inscription. Such double entendre imbues the image with metaphysical power, situating Desert Rock as a transgression not only against the human body, but against the deities, themselves.

Yazzie’s “Homecoming” references her poem, “Benedicto,” also included in the Connections show [Figure 8]. The two pieces are a conversation, securing the painting’s reference to Changing Woman and thus, the ethical, metaphysical, and gendered transgression of Desert Rock. Together, like the rest of the artworks in the Connections show, the contribute to a broader language for debating energy issues on the Navajo Nation, furthering a creative genre for re-thinking development. The poem, below, introduces three other beings not directly depicted in the painting: the Sky (gendered as male, consistent with Diné cosmology), as well as a hummingbird, and eaglets, both of which hold particular meanings in Diné cosmology and creation stories. As flying beings, these birds are associated with the air, or the (“Father”) Sky in the poem, suggesting that while the human body and its landscape have been radically altered – her “desert hands” must “dig[s] for glint of H₂O” – the air remains able to support life. As a “benedicto,” Catholicism (widely practiced in northern New Mexico) penetrates Diné cosmology,
making the poem work as a blessing for a specific group of people in a specific place: “the Elders at Doodá Desert Rock resistance encampment.”

Both *Connections* shows, in Durango in 2008 and Shiprock in 2009, expressed the politics and aesthetics of the movement opposing Desert Rock, materializing the movement, making it visible – even spectacular. Such tangibility made it possible for the movement, through its artists *qua* spokespeople, to reach wider publics and advance a politics concerning the human, ecological, and spiritual integrity of a particular place. In each work, absent, disfigured subjects inhabit a dystopia wrought by energy development, transforming familiar bodies and locales into surreal, threatening figures. The artists succeed in objectifying the sense of crisis and urgency felt by those opposing Desert Rock by producing a narrative of transgression and loss, making deeply and widely held meanings of Diné identity appear precarious and uncertain. Though each artist created her/his work independently, together they work as a set to produce an imaginary of the proposed power plant as a crisis of human and geologic dimensions, a sci-fi future in which life itself is besieged by the residues and side effects of power production. Cultural objects such as these paintings are necessary to create the broader social imaginary, or “figured world” of Desert Rock; as Holland et al argue, “figured worlds rely upon artifacts” (Holland et al. 1998, 60).

These artworks are, of course, part of a much longer trajectory of Diné material culture, and works of art in particular. Weavings and turquoise silverwork (as well as sacred objects including sand paintings and clay vessels, to a lesser extent) are perhaps the most widely recognized works, but whereas those circulate in global markets of interest to Native and non-Native consumers, these pieces of energy-related artwork,
inspired by the situated histories and competing futures of energy extraction on the
Nation have been created with Navajo viewers in mind. They reference a very specific
landscape, heritage, set of collective identifications, and invoke a particular repertoire of
extractive legacies, the necessary background of understanding why the stakes are so
high in the Desert Rock possibility. Much like the emerging institutions of Diné
knowledge production discussed in Chapter I, this movement of cultural production takes
ergy development as a core problem around which to formulate knowledge that goes
beyond the textual, speaking primarily to Diné audiences.

B. National Movement of “Energy Justice” Artwork: From Dystopia to Utopia

These Desert Rock paintings represent situated knowledge of a particular energy
landscape: the history and future of energy on the Navajo Nation. As traveling artifacts of
energy debates, they are expressions of a broader movement by Native artists creating
critical artwork concerning energy development in other indigenous territories. These
works of art are crucial to the politics and aesthetics of “energy justice” as a traveling
discourse throughout Native America. For instance, the show Impacted Nations traveled
from October 2005 through early 2009 in dozens of cities and university campuses
around the U.S., featuring over fifty works by forty Native artists from across the
continent, using a wide range of media to comment on the historical effects and potential
futures of energy production in tribal communities. The works of art in this show
visualize the impacts of dams, coal and uranium mining, nuclear power and oil
exploration, depicting visions of threat and danger, similar to the Desert Rock dystopia
imagined by James Joe, Ed Singer, and Gloria Emerson. However, addressing energy
development more broadly (than one particular coal plant proposal), some of these works posit energy utopias, offering, in the words of the show’s statement, “an alternative vision for the future, a future that draws upon the sun and wind.”

I encountered the *Impacted Nations* exhibit when it landed in Santa Fe in June 2006, drawing high-dollar donors, art dealers, art educators, national and regional activists, and Santa Fe’s usual well-heeled gallery clientele to its opening night at the Institute for American Indian Arts (IAIA) Museum. Presented and organized by the non-governmental organization Honor the Earth, the *Impacted Nations* show visualized the national energy justice movement, with most of its artists addressing the “deadly legacy” of mega-dams, oil exploration, coal mining, nuclear power, and global warming, while a subset of artists made works projecting the “promising future” of wind and solar power. The show became an event, like the *Connections* shows in Durango and Shiprock, for the movement critiquing fossil-fuel based energy development in Native communities to be seen and heard, reach new publics, and make its politics tangible through a gallery of gripping images. In the Museum’s lobby, there was an information table with literature and staff from the SAGE Council, a Navajo/Pueblo non-profit organization focusing on sacred site protection in the greater Albuquerque area. Winona LaDuke, founder and

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219 I remembered my first encounter with the SAGE Council ten years ago, when they were fighting the city of Albuquerque’s plans to extend a freeway through the suburbs west of the city, razing an area of rock outcroppings full of petroglyphs. I had helped organize a press conference at the petroglyph site, bringing nationally-known musicians together with Native activists to convince the media and policymakers of the cultural injustice entrenched in the city’s expanding infrastructure. The story ran widely and still, the road was built. At the Santa Fe show, the SAGE Council offered literature on their work to thwart new uranium mining in the region and to mobilize Native voters in the upcoming presidential election.
director of Honor the Earth, welcomed the eager audience to the reception, noting that the show assembled cutting-edge work by Native artists from across North America.

Across the *Impacted Nations* show, visions of dystopia and utopia generated a visual dialogue about the future, speaking to one another from the walls, halls, and rooms of the IAIA gallery. For instance, Bunky Echo-Hawk (Pawnee/Yakama) illustrates the nuclear legacy of the Hanford nuclear weapons development site in Washington state, where years of experimental release of radioactive materials contaminated the Columbia River and its tributaries, impacting the health of the Yakama and other Native communities who rely upon the River’s salmon as part of their livelihoods and cultural patrimony. [Figure 9]. Echo-Hawk’s painting contrasts with the work of another contributor to the show, Thomas Haukaas (Lakota), whose image of a Sundance ceremony is flanked by onlookers, drummers and singers, and two houses powered by wind turbines. [Figure 10].

The technologies of the power plant stacks on the horizon in Echo-Hawk’s “Downwind from Hanford” contrast sharply with the wind turbines in Haukaas’ “Generating the Winds,” indicating the range of temporalities operative in this genre of work; nuclear power is associated with a destructive past, whereas the wind power is associated with reverent ceremonies and a communities of the future. Such temporal and technological juxtapositions drive the logic of the discourse of “energy colonialism” and “energy justice,” as discussed earlier in Chapter II, and which I have addressed elsewhere (Powell and Long 2010). Like the absent subjects in the paintings in the *Connections* exhibit, Echo-Hawk’s three subjects are also absent, suggesting the erasure and losses associated with the negative effects of radioactive contamination. Their bodies signal
Native identity through widely recognizable, staid markers of indigeneity – headdresses, bear claw necklaces, feather, and pipe – yet their individuality is erased by their gas masked faces and vacant eyes. These markers of generic indigeneity combined with the erasures of individuality and life produce a sense of the subjects’ alienation from the landscape and one another. This contrasts with Haukaas’ work, where the subjects pictured, in addition to the Sundancers, appear to be families, friends, singers, even dogs and horses, creating a sense of a lively, vibrant community, living harmoniously with solar-paneled roofs and wind turbines, their skies blue and ceremonial center intact. Such juxtapositions are part of the positive narrative of energy justice, countering fossil fuel and nuclear power with wind and solar power, the former technologies indexing a sick, painful, colonial past while the latter technologies index a hopeful, balanced future. These counter-posed artifacts counter-pose desires, investing specific technological infrastructure with meaning that is both intimate and political.

Haukaas’ painting – and the others in the show depicting a future of solar and wind power – is part of an effort, led by Native non- and quasi-governmental organizations including Honor the Earth, the Indigenous Environmental Network, the Intertribal Council on Utility Policy, among others, who are advocating for wind and solar energy as alternatives to decades of extractive industry on tribal territories. Part of a broader collaborative model to fund, train, and build “sustainable tribal economies” across North America, Honor the Earth researches and develops site-specific techniques for revitalizing locally-grown and consumed indigenous foods and constructing locally-produced and consumed electrical power. This approach proposes a food-energy methodology, positioned within the urgent political need for greater independence for
Native communities by promoting the revitalization of local, indigenous food systems and renewable energy technologies for “food and energy sovereignty” in Native America (LaDuke 2005). Resonating with the previous chapter’s discussion of how Desert Rock is producing an arena for fresh deployments and interpretations of sovereignty – and politics beyond sovereignty – Honor the Earth’s engagement with energy development more broadly (than the Navajo Nation alone) produces a critical consideration of sovereignty through nurturing local food and energy movements.

Haukaas’ painting depicts a different landscape of power for Native Nations, where cars, houses, and wind turbines operate alongside pan-Indian ceremonial practices. The image ascribes material, political, and sacred power to the wind turbines by aligning them with the Sundance ceremony – itself another traveling, expressive practice of indigeneity today. Graphically integrating these interpenetrating sources of power – the wind turbine and the Sundance ceremony – posits a utopia in which this particular version of Native identity is supported by a renewable energy infrastructure. The renewability embedded in ceremonial practice and wind power technology is thus both metaphor and material.

Echo-Hawk’s and Haukaas’ works are part of a sub-genre of Native art, traveling in circuits of energy activism as exemplars of a burgeoning critique of fossil fuel dependency, landing in private and museum collections of Indian art. A final example of

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220 On the Navajo Nation, Sundances are put on every summer throughout the reservation. They carry the memory of a social movement with them, as they are reminders of the Navajo resistance to relocation at Big Mountain, where the first Sundance on Navajo territory is reported to have taken place. They continue to produce a pan-Indian and pluricultural space for a spiritual practice which is also very much understood, by its participants, as a political practice. I attended several Sundances during my fieldwork, but choose not to write about these events out of respect for their participants and my own promise not to document these types of encounters.
this sub-genre depicting the interpenetrations of power and utopian dimensions of energy technology, cast against dense histories of energy extraction in Native communities, is Lakota artist Donald Montileaux’s ledger drawing [Figure 11]. This piece was inspired by a specific event and artifact: the first Native-owned and operated commercial scale wind turbine. Installed on the Rosebud Nation in 2003 as a joint project of the Nation, Honor the Earth and the Intertribal Council on Utility Policy, this single turbine generated enough power for the nearby tribal casino, with the potential to power up to 250-300 additional residences. Montileaux created this piece for Honor the Earth’s energy justice campaign, which critiques the “historically unjust energy policy” in Native territories by promoting wind and solar development as economically and environmentally safer alternatives. In a reversal on the absent subject motif, the subjects pictured in the work are identifiable as specific individuals, despite their featureless faces or turned backs. Each is someone who helped the Rosebud turbine materialize, through activism, funding, and political maneuvering. The mandolin player is Amy Ray and the guitar player is Emily Saliers of Indigo Girls – the musicians made a visit to the turbine shortly after its dedication; the masked men are Bob Gough and Pat Spears of the Intertribal Council on Utility Policy; and the two Native women, flanked by their children, are Winona LaDuke and Lori Pourier, national activists.

Montileaux’s drawing later joined the Impacted Nations show when Honor the Earth launched the exhibit in 2005. His medium recovers a lesser known expressive practice and circulating artifact of indigeneity. Plains peoples in the 19th century used ledger paper, a colonial accounting technology, for making drawings,
“as mnemonic devices to record historical events called winter counts and were painted on [buffalo] hides. Others were used in narratives, or stories, and were painted on robes, tipis, shields, and other objects. Stories told in pictographs normally read from right to left. Portions of figures often represented the whole. Cartoonlike, wavy lines were used to indicate dreams. Drawing was done freehand in pencil or ink and the outline was then filled in with flat color. There was usually no attempt at perspective (Matthaei, Cvijanovic, and Grutman 1994, 70).

European colonists imported large sheets of ledger paper for recording monetary transactions, which Plains artists took up as their new canvas as buffalo hides (and the buffalo, themselves) became scarce. A generation or two later, these pictographs were reproduced by Native children removed from their families and sent to East coast boarding schools, whose assimilation project was “to learn the white man’s skills in the civilized East” (Matthaei, Cvijanovic, and Grutman 1994, 70). Prohibited from speaking their languages and not yet knowing English, children from Plains Native Nations used these pictographs as way of communicating their experiences of displacement and re-education.  

This history suggests that the ledger drawing is an historical antecedent to contemporary “mneumonic devices” of one strain of energy activism in which, on the one hand, existing or proposed fossil fuel technologies (like Desert Rock on the Navajo Nation) are associated with the loss, or erasure of indigenous subjects and identities, promising future dystopias; while on the other hand, renewable energy technologies are associated with the revitalization, adaptability, and sustaining of indigenous identities,

221 This discussion of Montileaux’s ledger drawing is elaborated further in a longer paper exploring national indigenous environmental activism and wind power project on the Rosebud Sioux Tribe (Powell 2006).
promising utopian – or at least more desirable – outcomes. As such, these “technologies of traditional futures” (Powell and Long 2010) interpenetrate past and future, memory and longing, channeling indigenous oral histories through Danish wind turbines.

In both the dystopic visions of Joe, Singer, Emerson, Yazzie, and Echo-Hawk and the utopian visions of Haukaas and Montileaux, the indigenous subjects and landscapes are transformed through the effects of energy technology and its infrastructures. The surreal despair of the first set cast against the equally surreal hope in the latter two suggests that the politics of these subjective and ecological transformations, as imagined, is intimately linked with the specific technologies: put starkly, coal plants signify death while wind turbines signify life. Imbued with the power to signify death and life, energy technologies take on meaning that grossly exceed their mechanical design. They are, effectively, semiotic mediators of how communities are made to live – or die – through particular development interventions. These resonances with biopower strike at the heart of the knowledge implicit in these artifacts: Native bodies and landscapes have already been transformed by a century of intensive energy extraction. Thus, theirs is a story of the past as much as it is a projection of competing dystopian or utopian futures.

These images have traveled through and beyond Navajo territory and its borders, replicating themselves in new media, reaching wider publics through online avenues including movement websites and blogs (see for example, honorearth.org, ienearth.org, and desert-rock-blog.com); as prints of the originals, sold by artists as subsequent showings and in gallery stores; at conferences and gatherings like the U.S. Social Forums; and in print as the book cover of the edited volume, *Indians & Energy*.
Exploitation or Opportunity. As they travel, these images become unmoored from their makers and places of origin. Moreover, they help constitute wider art markets in which paintings – like Echo-Hawk’s – command thousands of dollars, converting critical commentary into commodities for consumption on the global Indian art market. Nonetheless, “the market” for these objects is itself not a monolithic, coherent, or easily delimited place, and in the margins of this market – like the small art gallery and coffee shop Gloria Emerson runs next to a gas station in Shiprock – critical artwork is alive, re-imagining the very landscape just beyond the gallery’s door.

II. Multiple Exposures: Photographs and Cartoons of Energy Sites and Subjects

To expose is to reveal or lay bare, but also to make vulnerable. Photographs and political cartoons perform the work of exposure on Desert Rock and energy development on the Navajo Nation, more broadly, making the movements opposing and supporting the power plant visible in mediums both stark, in the case of black and white photography, and satirical, in the case of cartoons. Though they are quite different genres, the former being sutured with fine art, documentary, and representations of the real, while the latter is an expressive practice of caricature and the hyperreal, relying upon collective

222 The back story to this replication of Bunky Echo-Hawk’s painting, “Natural Resource Management” (also included in the Impacted Nations show), is that as a contributing author to Indians & Energy, I suggested this image as the book cover at a meeting at the School of Advanced Research in 2008. This is yet another example of first, how anthropology has a hand in the proliferation of these images, and second, how collaborations between researchers (myself) and Native artists and intellectuals (Bunky Echo-Hawk, in this case) can simultaneously promote indigenous art and activist-academic research. Indians & Energy in the Southwest: Exploitation or Opportunity, edited by Sherry Smith and Brian Frehner, Santa Fe: SAR Press (2010).

cultural and political imaginaries to make sense of specific exaggerations and parodies, both photography and cartoons work to expose life and produce the politics surrounding the Desert Rock controversy. Desert Rock, as an emergent phenomenon, has been made vulnerable by these artifacts of exposure; photographs offer outsiders a glimpse into the lives and landscape of the impacted area, while political cartoons provide animated commentary on the futility of ongoing energy development projects. As cultural artifacts, both the photographs and the cartoons work to reveal certain knowledges and politics of subjectivity, landscapes, and land use, simultaneously making the power plant’s present more tangible and its future more vulnerable.

Photographs are unique in that they operate in a different temporality – they are not projections of future dystopia or utopia, but (at least appear to) offer reliable depictions of the present. Although the photographer decides on framing, composition, color, and exhibition, thereby asserting a narrative structure of sorts, documentary photographs suggest the here-and-now in a way that generates a sense of urgency in the present, a silent, trans-textual call to action. Such photographs threaten the future of Desert Rock, as they travel and circulate far beyond the places where they are made. In what follows, I discuss some of the work of Carlan Tapp, a particularly prolific photographer of Desert Rock, whose collaborative documentary work positioned him as an activist opposing the power plant. I follow with an examination of two drawings that ran in the *Navajo Times* by staff cartoonist Jack Ahasteen, satirizing Desert Rock and other ongoing energy debates. While the artworks in the *Connections* and *Impacted Nations* shows contribute to the figured world of Desert Rock and energy development, more broadly, by focusing on the transformation of generic Native subjects and
landscapes in post-development worlds, Tapp’s photographs expose the vulnerability, and the power, of specific, locatable subjects and landscapes in the present. Ahasteen’s cartoons, on the other hand, expose wider political networks in which the Navajo Nation’s energy practices are entangled and the losses suffered by tribal members and leaders because of these interpenetrations of power.

A. “A Question of Power”: Carlan Tapp’s Photographic Witnessing

A student of Ansel Adams and resident of Santa Fe, documentarian Carlan Tapp has shot over 4,000 frames, made a still film, and conducted over 40 audio interviews with people living near the proposed Desert Rock site. His black and white photographs are the products of collaborative work with individual Burnham residents and the organization Diné CARE, which has used his images to help make visible their movement to stop construction of the power plant. The photographs are objects around which events can be organized, working to draw new publics much like the paintings inspired by Desert Rock in the Connections shows. Tapp himself was drawn into the movement opposing Desert Rock by learning from a friend with the Indian Health Service about the dire health conditions of people living in the Four Corners region and further motivated when he was unable to obtain any official information from the agency on actual health statistics. “I knew then that something was going on there,” he said. Describing his work as being a “witness” for the people of Burnham, Tapp spent the next few years driving the back roads of Burnham with Sarah Jane White, Lucy Willie and
other area elders, documenting the resistance camp and events in the centers of state and tribal policymaking, Santa Fe and Window Rock.224

In July 2007, at the Open Shutter Gallery in Durango, Carlan presented several dozen of his silver prints. Showing just a fraction of his larger body of work on Desert Rock, the show “A Question of Power” featured Burnham elders, land formations and other meaningful places within the geographic area surrounding the Navajo Mine and proposed Desert Rock site.225 Whereas the Connections and Impacted Nations paintings posit alternate futures wrought through particular technologies, Tapp’s documentary photography – as a medium sutured more closely to notions of evidence, objectivity, and “the real” – records the subjects and landscapes as they exist and are being made now, through active anticipations of the verdict on Desert Rock. Yet, his interest in witnessing to create a “visual voice for the people” has an ear to the past, as well; this “voice” is political and suppressed, he notes, by colonial institutions’ continuing effects, especially among the older generation. As he traveled with White and Willie to visit rural families, often driving “thirty to forty miles on a four-wheel drive road,” he found that,

“people who wanted electricity were never given it, people who wanted to be told about things were never told. And in the Navajo way, people who endured those BIA [Bureau of Indian Affairs] schools were told not to speak up, told not to voice their feelings or opinions. That’s been a prevalent thing that continues. There are so many people against Desert Rock but are afraid to voice their opinions. They are in fear of doing anything.”226

224 Interview with Carlan Tapp, Santa Fe, N.M., July 20, 2007.

225 These photographs are part of Tapp’s broader, multi-sited project, Question of Power: the social cost of electricity in America, featuring stories of communities facing coal development in the Southwest and the Southeast, showing the common power geographies facing rural areas from the Navajo Nation to Alabama. Description of Tapp’s project, including photographs, audio interview excerpts, Tapp’s blog, and maps are viewable at www.questionofpower.org. Last accessed on October 16, 2010.

226 Interview with Carlan Tapp, Santa Fe, N.M., July 20, 2007.
Events like the Open Shutter Gallery show are Tapp’s effort to subvert some of this historical silence and fear. Sponsored by regional activist organizations Diné CARE, Energy Minerals Law Center, and the San Juan Citizens Alliance, the show was a collaborative event among the individuals and groups working together through community organizing, litigation, and policy advocacy, respectively, to stop the construction of the power plant. At the show’s opening reception, which drew over sixty people, both Tapp and White spoke about their collaborative documentary work and the day-to-day lives of the families who would be relocated by the expansion of the Navajo Mine. Following summaries of the Desert Rock issue by Lori Goodman of Diné CARE and Brad Bartlett, the lead attorney working with Diné CARE, Tapp and White offered reflections on their collaboration. Each stood at a small podium, their backs against the white-washed gallery wall hung with Tapp’s photos, many of which featured White herself. Their presentation was polyvocal and recursive; Tapp had interviewed and photographed White, while White had, in turn, guided Tapp through the rugged, austere terrain around the proposed site and conducted ethnographic interviews with Burnham area residents on their opinions of the proposed power plant (discussed in Chapter VI). Collaboratively, Tapp and White produced a series of images and stories in which White was featured, but hers was not the sole narrative. The photographs thus generated a story with multiple voices – not only those of Tapp and White – but others living in the area who were not as likely to turn up at a gallery opening in Durango. Tapp’s photographs of elders at the Desert Rock resistance camp during its formative period in the winter of 2006-2007 [Figure 12] and the direct action march in Window Rock in January 2007
[Figure 13] capture central expressive events of the movement as it gained momentum, helping narrate the action beyond the Navajo Nation.

The camp and the direct action made the movement visible, along with the banners, placards, horseback riders, decorated trucks and trailers that paraded through the Nation’s capitol. The banner shown in Figure 13 became a consistent, durable symbol of the Doodá Desert Rock movement. Showing a Diné woman wrapped in a blanket and wearing a biohazard gas mask, with billowing smoke stacks in the background, the banner appeared at multiple marches, parades, camp site vigils and rallies, outside the Chambers of the Navajo Nation Council, and even at least once on the streets of Manhattan during a protest outside the offices of The Blackstone Group, the project’s financiers. Over time, the banner became a contested object as well, as different segments of the movement claimed ownership over it, attempting to claim and use it for their particular events.

Among the most gripping at the Open Shutter show were Tapp’s photographs of the unique desert landscape in which Desert Rock would be located. Figures 14 and 15 show this landscape, at once open, vast, geologic, while simultaneously inhabited and built, juxtaposing the non-human with the human in a wider ecology highly politicized by the emergent threat of Desert Rock.

Tapp has not been the sole documentarian or photographer working on Desert Rock, of course; his work is exemplary, however, in its breadth and temporal scope. With thousands of photographs of the Burnham area spanning five years, Tapp produced a body of work unmatched by other activists, documentarians, journalists, or researchers. His collaborative positioning with White (and others associated with Diné CARE and
Doodá Desert Rock) placed him in an active, critical role, supplying the movement with images that have circulated through the Associated Press, National Public Radio online, regional newspapers, activist blog and websites, and print publications.

The artifacts he made not only enlisted wider publics through their circulations, but his work on them drew the photographer himself deeper into his witnessing role in the Desert Rock struggle. During a coincidental visit to the site in the summer of 2008, Tapp helped residents mitigate their shock at discovering the mining company’s disturbance of burial sites, ceremonial areas, and archaeological sites surrounding the proposed Desert Rock location. He put his photographic proof of the disturbed landscape on public record during a hearing at the Burnham chapter house with the U.S. Office of Surface Mining (OSM), the federal agency responsible for overseeing the proposed expansion of BHP’s Navajo Mine, a connected action of Desert Rock. Though the OSM hearing was ostensibly held to take public comments on proposed plans to realign the road leading into the Mine, Tapp’s comments – and those of many others – questioned other impacts of the Mine expansion, especially its effects on the landscape beyond one single road. Tapp recounted how when activists at the hearing pressured the OSM to release the contents of BHP’s ethnographic study of the impacted area – detailing artifacts and human activity in the landscape – they were told, “this is all under lock and key in Washington, DC now … Literally, their words, ‘We can’t talk about this.’”

Frustrated by the OSM’s stubborn nondisclosure, Tapp confessed he had “never experienced how the government really works, on this level.” His and others’ attempted

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227 Interview with Carlan Tapp, Wheatfields, AZ, June 26, 2008. Tapp recounted his impression of the proceedings from the Office of Surface Mining hearing held at the Burnham Chapter house on June 26, 2008, ostensibly focusing on the relocation of the Burnham Road.
exposé of the company’s activity around the site, including the ethnographic study, is a poignant metaphoric counterpart to the exposures embedded in Tapp’s photographs; both reveal the people, places and objects often obscured in policy and bureaucratic debates over development projects. Tapp’s photographic “witnessing,” made possible through the artifacts he encountered and produced, thus exposed much of what had gone unseen prior to his involvement. The power to make visible the meanings and knowledges embedded in a place, including but also beyond its immediate inhabitants, has been crucial to the movement’s potency.

B. Comic Relief: Exposing Interpenetrations of Power

The Navajo Times, the weekly newspaper owned by the Navajo Nation, has a total circulation of 24,764 (including subscriptions), covering the reservation every Thursday as the primary source of local news along with the tribal radio station, KTNN/AM 660. The newspaper regularly features news stories, op-eds, and comics on the controversy surrounding Desert Rock and other ongoing development debates, from coal mining at Black Mesa to the inaugural tribal casino. It is beyond the scope of this chapter to review the full extent of the newspaper’s extensive coverage of energy development and the Desert Rock controversy, in particular, as coverage spans from 2003 to the present, proliferating at the height of the public discussion on Desert Rock during the summer 2007 Draft EIS hearings. The op-ed articles, in particular, are rich with personal testimonials, critical analyses, misinformation, ongoing dialogue and debate, as well as predictable scripts from the opposition and the proponents of Desert Rock, requiring in-depth analysis and discussion for another content analysis project. However,
a small sample of a few weekly comics offers a glimpse into the discursive trail of Desert Rock as another venue of original images that continue to exist in the newspaper’s archives and circulate on and beyond the Nation, tacked on refrigerators and bulletin boards, replicated on blogs and in the media, as meaningful artifacts of the controversy.

Because the paper is tribally owned and Desert Rock has been the tribal administration’s showcase project in recent years, it is not surprising that the critique of energy development implicit in cartoonist Jack Ahasteen’s drawings does not condemn Desert Rock, outright. However, Ahasteen takes a critical position, exposing the wider political networks in which the Navajo Nation’s energy practices are entangled, commenting on the marginalization of the Navajo Nation and its members affected by these connections which are difficult entanglements and arguably, ongoing colonial relationships. Two of Ahasteen’s cartoons, in particular, depict the complexities and contradictions of these wider relationships, suggesting – though not condemning, outright – that Desert Rock is part of a longer, ongoing, and complicated history of energy entanglements that reach far beyond the Colorado Plateau.

Figure 16 is one such commentary, depicting the United States, embodied as Uncle Sam, in bed with Peabody Coal Company. The two are apparently caught in the act by a jilted, enraged Navajo Nation, exclaiming, “You cheated on me!” The ambiguity of the address is telling – it is unclear whether the federal government or Peabody has betrayed the Navajo Nation – or both – suggesting the intimate alliances that the Nation has alternately maintained with both the government and corporate energy giants in its efforts to develop coal mining at Black Mesa. The homoeroticism of the drawing also cannot be ignored; the two male bedfellows are as blatant as Uncle Sam’s striped pants.
tossed across the bed’s footboard, despite the widely acknowledged difficulty in openly discussing gay, lesbian, bisexual and transgender relations on the Navajo Nation. The look of wide-eyed surprise and guilt on the faces of Uncle Sam and Peabody give away the duplicity in their consensual conjoining, suggesting that the now-scorned Navajo Nation had the right to be in bed with (one of) them, before their infraction.

This cartoon ran in September 2007, following a long summer of heated public hearings on the Draft EIS for Desert Rock and the resurgence of debate on the future of Peabody’s coalmines at Black Mesa, which had been shut down since the previous year. Ahasteen’s satirical drawing implicates the historic collusion between corporate and federal interests in Navajo energy development, often occurring without the Nation’s full consent or equal partnership. Though it is a comedic commentary on participation in energy development, the notion of being “cheated” cuts much deeper, conjuring histories of uneven, uninformed, 19th century treaty deals forged between the U.S. and Native nations, as well as 20th century hijackings of lease payment and royalty rates by Peabody in its negotiations over Navajo coal extraction. Controversy over Peabody Coal’s relationship with federal agencies and the Navajo Nation have been part of the debate over Desert Rock as well. Both opponents and advocates of Desert Rock often refer to Black Mesa as a reference point for what went wrong before – in terms of limited ownership, low or unpaid royalties, environmental impact, and use of water from pristine aquifers – and what could be done better (in the case of proponents) or not at all (in the case of opponents) with Desert Rock. Therefore, although Ahasteen’s cartoon directs its critique at the U.S. government and Peabody Coal (instead of Sithe Global or BHP Billiton, developers of Desert Rock and the Navajo Mine), it contributes to the imaginary
of Desert Rock as the newest dystopia or utopia of energy development for the Nation, depending on the viewer’s own politics and partiality to the project.

The following summer, in the midst of another resource controversy discursively related to Desert Rock, Ahasteen created a cartoon that continued the theme of being “cheated.” This time, however, marginality is embodied in the individual farmer, rather than the political body of the Navajo Nation [Figure 17]. Tilling what appears to be a dry field, the farmer stands in the foreground of two massive conduits of energy infrastructure – one existing, and one proposed: the electrical transmission lines that march across the horizon, transporting power from existing power plants in the region to consumers outside the reservation, and the proposed “New Mexico Navajo-Gallup” water pipeline, diverting over 37,000 acre feet of water from the San Juan River to eastern Navajo Nation communities, the Jicarilla Apache Nation, and the southern border town of Gallup, NM. The pipeline has been a controversial resource use issue, given the Navajo Nation’s unresolved water-rights claims in New Mexico and the doubt, on the part of many, that the pipeline will fulfill its promise to deliver much-needed water to rural households and family farms. Ahasteen’s comic depicts this skepticism, suggesting that the pipeline – should it be built – will transport energy off the reservation just like the transmission lines towering above it. The farmer’s quotation-bubble sums up the general critique of the pipeline, connecting it to broader inequities in power distribution: “No water for farms. No electricity for our houses. Some things never change.” In this case, the sense of “things” that “never change” are the infrastructures that traverse the Navajo landscape, carrying resources sourced on Navajo territory to non-Navajo consumers. The inequity of production and consumption in energy resources has been integral to the
discourse on Desert Rock; while project proponents maintain local consumption will be bolstered through the tribal revenue from the project and entertain the possibility of some local distribution of power, critics of Desert Rock note that the proposal is no significant departure from decades of export-based models of natural resource development. Moreover, many opponents of Desert Rock feared one of the pipeline’s conduits would be constructed to divert water from the San Juan River water to support coal processing at the new power plant, since there is no mention of the project’s water lease in the Draft EIS.

These cartoons, along with scores of others like them, are contemporary artifacts of energy development and natural resource use. As they appear in the weekly paper, online, and then circulate as clippings and portable document files (pdfs), they make visible the stakes in the debate: the intimacies of tribal-federal-industry relationships; the scarcity of resources for consumption despite the massive extraction and transportation of power through the reservation; and, more fundamentally, the deep-seated doubt and suspicion that many feel regarding equity and justice in these allocations. Embedded in these seemingly comedic drawings are enduring histories of betrayal and marginalization, reflecting decades of experience with “how the [federal] government really works” (to use Carlan Tapp’s words, quoted above) in many cases to foreclose meaningful participation by Navajo tribal members and tribal government in relationships and infrastructures that shape the future of Navajo landscapes, bodies, and communities. At the same time, critics are often in a double bind, as the federal government makes funding, training, and technical expertise possible for implementing renewable energy technologies on tribal lands through the Department of Energy’s Tribal Energy Program.
Cartoonist Ahasteen plays upon these contradictions, shifting alliances, and moving targets of critique, situating the Desert Rock controversy in these longstanding negotiations of power that continue to shape, and be produced through, emerging development proposals.

III. Interactive Spectacles of Desert Rock: Dialogues of Cultural Production

The artifacts and spectacles explicated above stand out as exemplary objects of cultural and knowledge production being produced by and through the controversy surrounding Desert Rock and broader energy debates on the Navajo Nation and beyond. However, they are not alone. Other expressive practices, perhaps less tangible in their products but equally powerful in their effects, have shaped the spectacle of Desert Rock in the Navajo Nation’s national imaginary. These include benefit music concerts, rallies, vigils, marches, fashion shows, workshops, parades, television and radio shows, meetings, legislative actions, earth ship building and campsite construction, petition drives, and online media such as blog and social networking sites. Through these events, adversaries and allies, alike, are intimately engaged through a shared, dialogic politics of independence, despite their divergent views on precisely how such a future should be built. While marches in Window Rock (as depicted in Figure 13) and follow a predictable, now global script of activist practice and are largely the domain of practice for the opposition to Desert Rock; and public hearings are part of the mandatory,

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228 An earth ship is a home or other structure made out of renewable materials, normally involving earth-ram building techniques, re-used materials such as tires, glass bottles, aluminum cans, and/or low-impact materials such as straw bale or stone. The Doodá Desert Rock resistance camp had an earth ship under construction from 2007 onward, with an 8-10 foot pit dug out of the desert floor and lined with architecturally stacked discarded tires, secured by compacted sand and dirt.
federally scripted, governmentality of participation in proposed development projects creating spaces of restrained dialogue (mentioned above, and discussed in detail in the next chapter), Desert Rock has generated and hitched onto other spectacles beyond the march or the public hearing in which adversaries and allies engage one another on the issue of energy technology. In this final section, I briefly consider two such spectacles specifically addressing the Desert Rock controversy, involving both opponents and advocates of the proposed power plant. Each spectacle produced its own artifacts, contributing to the escalating archive of the emergent phenomenon. First, I consider the television talk show and second, I turn to consider one of the most abiding vehicles of political positioning: the bumper sticker.

A. “Talk of the Town”: Desert Rock in Durango

Exposure Productions television studio in Durango, Colorado staged the Desert Rock controversy through a debate between one opponent of the project, Mike Eisenfeld of San Juan Citizens Alliance, and two project proponents, Nathan Plagens of Desert Rock Energy Company, LLC and Norman Johns, Navajo Nation Council Delegate. The show, “Talk of the Town,” is the city of Durango’s monthly talk show, hosted by Tami Graham. Having been hired to facilitate the Desert Rock Draft EIS hearings earlier in the summer, Graham developed relationships with these leading figures in the Desert Rock controversy, inviting them to Durango on this cool September morning to engage one another for a half-hour of lively conversation on the talk show. Plagens and Johns arrived together, similarly clad in jeans, cowboy hats and boots, bolo ties, and sports jackets, with hints of turquoise and silver at their wrists. Without a jacket or hat, Eisenfeld
appears more casual in trousers, a fleece pullover, and hiking shoes. He and I have driven up from Farmington together for this early morning taping in which he, as the opponent of Desert Rock, will face two staunch supporters of the project representing the joint venture corporation and tribal government, respectively. Staged as an informal, living room scene, the three guests squeezed awkwardly side by side on a long sofa, cups of steaming coffee resting on a table in front of them. Graham took a seat off to one side in an armchair and I joined the producers in the control room, decorated with framed prints of vintage Harley Davidson motorcycles.

Cameras rolling (live to tape), Graham asks Plagens and Johns about the possibility of the alternatives discussed in the Draft EIS. Plagens responds, saying that wind and solar are being “investigated” but they are of course entirely separate projects from Desert Rock. Johns concurs, elaborating that there may be “problems with these alternatives,” especially with finding tribal members to “give up” the thousands of acres of land needed for wind farms and solar fields. “Coal remains the best alternative,” argues Johns. At the commercial break, the panelists and facilitator break into easy laughter; it is clearly a relief to be off record. Plagens corrects Graham’s pronunciation of his name: “It’s a hard ‘g’,” he explains, “as in guns.”

Taping resumes, and Eisenfeld picks up the previous theme of alternatives, noting the study on viable energy and economic alternatives that his organization has helped commission, along with Diné CARE. He argues that wind and solar options are competitive with coal, surpassing coal’s uncertainty regarding possible federal carbon

229 These excerpts of dialogue are from the participants’ statements during the in-studio, live-to-tape recording, Talk of the Town, hosted by Tami Graham for the City of Durango, CO, September 25, 2007.
taxes, asking who ultimately would be responsible for paying these fines to pollute – Sithe Global or the Navajo Nation? Plagens responds, focusing on the projected reductions in emissions to which Desert Rock has agreed. Eisenfeld counters, noting the “existing legacy” of pollution in the Four Corners area and Desert Rock’s certain and significant contribution to the already “disproportionately impacted” area.

Suddenly, in the control room, the producer curses and starts flipping various switches on the soundboard. The audio has shut down, it appears, so the last eleven minutes of taping have been lost. This unexpected breakdown puts the producer in a frenzy, muttering, “this has absolutely never happened before,” as he works to determine where the sound cut out, and therefore, how much of the conversation would have to be re-created. The show has to be taped over again, starting from the commercial break; the panelists and facilitator are evidently ruffled – they will have to re-perform their debate, yet with their constructed spontaneity and amicability undermined by a technological breakdown.

During the final take, Graham asks each of the panelists to clarify why, in their opinion, this particular development project has gained so much local and national attention. Plagens argues the reason has to do with global warming discussions and efforts among many global warming proponents to “discredit the current U.S. [Bush] administration.” From his perspective as a Navajo Nation Council Delegate, Johns responds that the reason for so much attention is because Desert Rock would be built on Indian land, making it “a question of Indian sovereignty and the possibility of a Navajo economic boom.”

Eisenfeld begins with a more technical answer, noting the various

\[230\] Ibid.
known toxic emissions that Desert Rock would release, but concludes with the argument that “non-Native people are entitled to weigh in, despite sovereignty.” During our one-hour drive from Farmington to Durango that morning, Eisenfeld predicted that one of the key issues in the debate would be the question of sovereignty. Who has the right to speak on this question remains a contested matter – not only among activists, but among academics, policymakers, “outside” environmentalists, and tribal members (as discussed in the previous chapter).

The staging of Desert Rock through the spectacle of the television talk show illuminates the performativity of the debate – doubly performed, in this instance, due to the unexpected technological failure in the control room and the need to re-create the conversation on tape. The choice of these three particular individuals to engage in the debate affected the quality of this staging, and thus the meanings of Desert Rock it would produce, in several ways. First, the uneven number of three panelists placed two proponents against one opponent of the project, embodying the alliance between the Nation and energy industry (through Johns and Plagens) and casting it against the position of the so-called outside environmentalist. In other words, having the opposition to Desert Rock reduced to one, and represented by a Navajo environmentalist reinscribed the predictable subject positioning that has become well-worn and highly problematic in this debate: the notion of non-Diné activists manipulating tribal members to stand against their own government and its industry alliances. This positioning purifies the work of a much broader, diverse network in which Eisenfeld is an integral actor, eclipsing the many tribal members with whom he collaborates and who take leadership in the Desert Rock issue when it is staged on reservation territory.
Second, the gender politics are noteworthy. Graham, as the sole woman on the show, facilitates but is unable to offer her own opinion in the matter (despite being an area resident, herself), generating another obfuscation: the primary leaders in the Desert Rock opposition are women – and elderly – tribal members. Third, staging the debate in a cozy, yet anonymous Durango living room displaces one of the core stakes of the controversy: the eastern edge of the Navajo Nation and proposed site, itself. Thus, for anyone uninitiated in the Desert Rock debate, tuning into “Talk of the Town” would be an encounter with a reduction of the politics of difference and place surrounding the debate. The complexity of the issues, the wider networks of difference and action, and the landscape itself would be invisible. Such purifications are, however, the nature of polemical debates, perhaps necessary to make intelligible and make a spectacle of the more complicated entanglements of power at work in development proposals such as Desert Rock. These microcosmic reductions can, on the other hand, be quite effective in positioning key spokespeople (like the panelists in “Talk of the Town”) to be seen and heard by wider audiences, bringing new people into the action. A well-established, traveling trope of political action in the U.S., the political bumper sticker, may be the ultimate reduction in the staging of complex issues.

B. *No/Yes Desert Rock! The Polemics and Purifications of the Sticker*

Desert Rock bumper stickers were rarely seen on actual automobile bumpers. Only occasionally, while traversing back roads and BIA highways of the reservation, would I spot a small, round, “Doodá (No!) Desert Rock!” sticker or its counterpart, the “Yes! Desert Rock!” sticker on the rear of any car or truck. These two stickers were far
more commonly displayed on t-shirts, lapels, briefcases, notebooks, laptops, placards, hats, and on the brows or haunches of horses mounted in rides through Window Rock – the horseback “trail ride” being a now standard, political spectacle of arrival into the Nation’s capital, employed by Council Delegates at the opening of a new legislative session and by grassroots activists during any given march or rally. The original sticker was round, approximately five inches in diameter, a white background with red and black lettering, reading “No Desert Rock!” Developed by the group Doodá (No) Desert Rock (DDR), whose encampment near the proposed power plant site Burnham (and later moved to Chaco Rio) symbolized, for many, the opposition to Desert Rock, this sticker found its way onto human and non-human bodies in the summer of 2007. Used strategically at the public hearings on the Draft EIS for Desert Rock, activists opposing Desert Rock wore this sticker as they claimed front-row seats in the hearing auditoriums, spoke on camera with news reporters, and posed for photographs taken by reporters, supporters, students, and fellow activists. Figure 18 shows one charged moment of these stickers in action, worn by DDR leaders on horseback at a protest ride-in to the Chambers of the Navajo Nation Council.

Sometime during the Summer 2007 public hearings, the “Yes Desert Rock” sticker appeared. Its sudden debut evoked surprise and comic relief, the spirit of the action almost playful, teasing. The new sticker worn by the project proponents mimicked the DDR sticker in its exact size, shape, and colors – the only difference being the replacement of “Doodá/No” with the word, “Yes.” Employees of the Diné Power Authority (the tribal agency in direct partnership with Sithe Global) passed their stickers out at public hearings, parades, and other community events. It was an inversion of the
opposition’s sticker – an uninvited response to their call, staking its position as starkly
and unequivocally as the placards activists wielded in Window Rock since Desert Rock’s
first announcement.

To display one of these stickers was, of course, to make one’s position known,
consolidating a complex politics of energy, economic development, environmentalism,
and sovereignty into several monosyllabic words, reducing the message to a direct and
unwavering claim, mimicking the conventional efficiency of the political bumper sticker.
The sticker had the power to draw people off the bench and into the action, so to speak,
silently but powerfully asserting an unambiguous position on the issue. People who had
lingered in the margins of the hearings, taking notes, taking photos, drinking coffee, now
had to choose whether or not to don a sticker and, in doing so, to associate with the two
counter-posed, though intimately entangled movements concerned with the future of
Desert Rock.

Linguistically, by staking a position of opposition – expressed as “No” – the “No
Desert Rock” stickers produced a politics of opposition not altogether commensurate
with the movement’s broader goals and vision of the energy future. That is, part of the
movement’s most ardent work was to promote “alternative” or renewable energy
technologies, calling on the Nation to invest in wind and solar farms for residential power
consumption and export to wider markets. Likewise, by staking out the “No” position, the
sticker inadvertently created a dialogic space for the project proponents to say “Yes,”
reducing their politics as well to a three-word statement mirroring, through its
affirmation, the opposition’s original claim. This dialogic dynamic or polemicized speech
acts not only reduced each side’s position to a three word statement (true to the reductive
form of the bumper sticker or political slogan), but more importantly, worked to associate those opposing Desert Rock with a negativity or rejection, while associating the project proponents with a positivity or an acceptance. The hidden reversal embedded in these associations is that, while the opposition’s sticker staked a “No” position, much of the opposition was working, in their everyday mobilizing, research, and networking, to develop alternatives to the Nation’s reliance on coal power. Yet, this positivity was not made visible by their emblem. On the other hand, the “Yes” sticker worn by Desert Rock proponents rather than masking a hidden “no,” veiled the fact that project proponents (especially those in the tribal government) are taking a position of multiple affirmations; that is, theirs is a politics of diverse technologies, advocating for coal power at the same time that they advocate for solar, wind, natural gas, and oil development (as intimated by Plagens and Johns in the talk show discussed above). In fact, the only outright “no” that the tribal government has issued has been in regard to new or re-opened uranium mines on the reservation.

This slippery nature of the affirmative and negative positions notwithstanding, the stickers are noteworthy as artifacts of the energy activism surrounding Desert Rock, particularly for their dialogic and polemical staging of the debate. They exacted a surprising force, as they multiplied throughout the summer, they forced people to choose a side – or remain ambiguous, itself a political choice. Yet, while their dialogic performance had the sheen of a conversation, they did not require any meaningful engagement between adversaries. In fact, they enabled silence on the matter, as one could wear a sticker to make their position known, without having to offer a personal testimony at the hearings, write an op-ed to the newspaper, or sign a petition. As signs one could
hide behind, the stickers disabled meaningful, engaged dialogue, following a performative script of political debate found – and often reviled – in mainstream electoral politics. As objects, they worked as signs of affiliation, becoming part of how Desert Rock was staged as a negative or positive technological prospect, despite the multitude of shared interests among their wearers.

This ability to unequivocally locate its wearer made the sticker a difficult artifact for me in my role as anthropologist in this unfolding drama. My alignments extended in two directions – with the tribal government, through my research permit, and also with Diné CARE and DDR in my collaborative relationships with each of those organizations, even as these relationships changed over time. In the end, these most mundane, ordinary, throwaway pieces of reductive politics became objects I had to confront. Realizing the stickers would not accommodate my ambiguous identity as an “activist-anthropologist,” I chose not to wear one publicly. Instead, I stuck one of the DDR stickers on the fake leather interior of the driver’s door of my Jeep, a daily reminder of where I stood in relation to the proposed power plant, though I chose not to broadcast this position at public events. My original dismissal of these objects as unimportant, even peripheral cultural productions of the debate surrounding Desert Rock returned to stare me in the face: I found their stark, succinct, reductive power unnerving. That was, of course, their purpose.

Conclusion

The emergent object of Desert Rock has produced these actual artifacts in its place, populating the controversy with materializations of the differently imagined energy
futures contained in its own possibility. Taken together, they illustrate situated knowledge of a particular energy landscape: the histories and possible, competing futures of power on the Navajo Nation. These paintings, photographs, cartoons, recorded television shows, and stickers are significant because they make the emergent visible, lending a traceability to events, encounters, and imaginaries that are otherwise difficult to know. In some sense, they not only contribute to the debate, but they are the debate on Desert Rock; it is through these objects (and others, like the documents presented in the next chapter), that the proposed development project is comprehensible and acted upon. They may outlive the controversy on Desert Rock, becoming fossils of a particular moment that soon will fade into the collective memory of energy and economic development debates within the Navajo Nation. But remembering them – and remembering them now, before the moment has fully passed – allows us to consider how both landscapes and subjects of the future are being worked out through technology. As an emergent object, Desert Rock has produced these images, which circulate as new cultural resources, accruing meaning, enlisting newcomers into the issue, and feeding into the collective memory of these encounters, whether or not the power plant is ever built.

Their circulation constitutes a network of expressive practices, connecting with other networks of art and activism surrounding energy development on tribal lands. They have been reasons for gallery openings, new websites, re-runs, and pluri-cultural encounters at public events where they are on display, staging the Navajo Nation’s energy future in modalities at times stark, and at other times, playful. Putting them in conversation in this chapter has been an effort to show how, together, they are generating a critical knowledge of the particular, often hidden histories of energy development. The
utopia and dystopia they alternately propose is imaginative work, crucial for their creators and audiences in envisioning how technoscience is forming and transforming local landscapes, communities, bodies, and identities.

As much as the power plants, turbines, nuclear explosions, or solar panels depicted in these images, the media themselves are technologies for re-imagining changing Navajo landscapes of power. The canvas, the camera, the pen, the video camera, the sticker – all are technologies that give energy development a way of being affective and knowable. They need an audience, just as wind and solar projects need Desert Rock, to be able to counter its dystopias with their utopias and thus gain more luster. Narratives of loss, transgression and ruin require narratives of wealth, wellness, and wholeness; the power of the sun or wind to generate new social formations requires the power of coal, and its presumed failures. The complex interdependencies of these various technologies thus force the question of what is capable of being a true “alternative”? Working out uncertain futures on canvas, through poetry, the lens of the camera, the cartoonist’s pen, the TV producer’s editing eye, and other means, these objects assist in materializing what many consider to be at stake in the Navajo Nation’s energy future. They contribute to an energy discourse – visual and textual – and a broader, creative genre through which public debates on energy occur. Together, they contribute to a broader, visible narrative of urgency, danger and hope surrounding energy development on Native lands as well as a political analysis of the colonial conditions facing the Navajo Nation today.
Images for Chapter V

All images used with permission from the artist

Figure 4: Bleeding Sky, by James Joe, 2008
Oil on canvas
Figure 5: *Dear Downwinders*, by Ed Singer

Oil on canvas
Figure 6: *Rock Desert*, by Gloria Emerson, 2008
Oil on canvas
Figure 7: *Homecoming*, by Venaya Yazzie, 2008
Mixed media
Figure 8: Benedicto, by Venaya Yazzie, 2008

Benedicto for the Elders at Doodá Desert Rock resistance encampment, New Mexico, USA

He reminds her
of rain-

She can smell
New Mexico storm cloud
in his hair.

Her body-
80% water,
inhaled churning indigo
rain jargon-

She walks in pollution.

On the rim of supple cloud
circular mercury particles trail her CO2 aura.
Asdzáán, shrouded in nitrogen oxide
sits-

as hummingbird reflection swirls
in the bed of her desert hands.
And
he,
Sky.
Father watches.

In the shadow of horizontal night
she digs for
glint of H2O and crawls
to find her way back south-
where eaglets are being born.

She observes quickness in his eyes,
And longs
for language overflowing with
drops of water upon her
paper-parched tongue.

Grey smoke stack streams.
And twilight change her moods-
under her eyes
prayer words
float and swirl all around her.

Her 21st century circular rituals
surge in the palm of her hands,
like star explosion
she carries
granules of earth mountain sacraments
in her shiny silver belt.
Figure 9: *Downwind from Hanford*, by Bunky Echo-Hawk, Jr.

Oil on canvas
Figure 10: *Generating the Winds*, by Thomas Haukaas, 2005
Ink and acrylic on muslin
Figure 11: Honor the Earth, by Donald Montileaux, 2005
Ink on ledger paper
Figure 12: Elders at the Doodá Desert Rock resistance camp, December 2006
Photo by Carlan Tapp
Figure 13: March by Desert Rock resisters on Window Rock, AZ, Navajo Nation.

Photo by Carlan Tapp
Figure 14: Ram Springs, NM, near the proposed Desert Rock site
Photo by Carlan Tapp
Figure 15: Jim Mason at his home near the proposed site of Desert Rock. Photo by Carlan Tapp
Figure 16: Cartoon by Jack Ahasteen, Navajo Times, 9.20.2007
Figure 17: Cartoon by Jack Ahasteen, Navajo Times, 7.17.2008
Figure 18: "No Desert Rock" stickers, in action
Doodá Desert Rock leaders and horse, protest in front of the Navajo Nation Tribal Council Chambers, Window Rock, AZ, Navajo Nation
Figure 19: “No Desert Rock” stickers worn by activists at a public hearing
Chapter VI: Contesting Expertise

“This chapter community is fully supportive of the project [of Desert Rock] … they all agree. We support the resolution. How do people know that the pollution is killing us? I would understand if it was documented by the doctors, that ‘so and so got sick from the pollution’.”

Howell Pete, President, Nenahnezad Chapter231

“It’s important to understand that we are our own thinkers. We don’t have outsiders as our mouthpieces. We have a brain, we have a plan, we have initiatives and we want to bring this to the forefront. Any time a proposal like Desert Rock is made, it’s good to have a thinking process … We can utilize this second language we have learned to master, better articulate and make our position known throughout the world.”

Earl Tulley, Diné CARE232

As these quotations from Navajo leaders on opposite sides of the Desert Rock Energy Project controversy suggest, being recognized as an expert – and in turn, recognizing others’ expertise – is part of what is at stake in sorting out the problems of energy development. Yet, these are not straightforward or uniformly accepted knowledge claims; scientific and biomedical expertise, as well as other forms of knowledge, contest one another for visibility, legitimacy, and authority in the Desert Rock debate. As


232 Earl Tulley, statement on live broadcast on the Navajo Nation’s radio station, KTNN/AM 660, June 10, 2009. Mr. Tulley spoke as a leader of the grassroots organization Diné CARE and an employee of the Navajo Housing Authority. At the time of this writing, he is running for Vice-President of the Navajo Nation.
Honneth (1995) and others argue, recognition is never pre-given or self-evident, but always situated within and generated through social struggles. Often, the platform for such assertions is self-consciously public, the utterance and the moment of its enunciation combine in an effort to enroll others into a particular worldview or shared identification. Inasmuch as they are not private conversations, these assertions of expertise are similarly not only “local” knowledge struggles among the Nation’s contesting political actors; they are, in Tulley’s terms, broader efforts to have particular knowledges “known throughout the world.” At the same time, these knowledges are, in Donna Haraway’s terms, ultimately “situated,” in that they each rely upon “specific and particular embodiment” to achieve their own “partial perspective” (Haraway 1991, 190). This goes for scientists and sheepherders (and for those who are both). In the debates generated through Desert Rock, the power to legitimate a truth-claim required situating that assertion into broader, hybrid knowledges and longstanding narratives concerning the people, landscapes, and histories of the Navajo Nation. Such contestations of expert knowledge raise questions of whose truth-claims have greater power to enlist others in decisions and actions, and what practices of recognition and knowledge production have the power to shift the moral weight of the debate.

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My approach to recognition is informed by Axel Honneth, who demonstrates how the politics of recognition is also always a politics of identity and struggles for recognition are always at the center of social life (Honneth 1995). Other theorists considering recognition (and its undersides) and its intimate links to identity are Patchen Markell (Markell 2003) and Elizabeth Povinelli who explores the “cunning” of recognition in the context of indigenous identity formation (Povinelli 2002). These scholars, Honneth and Markell in particular, are working from Hegel’s concepts of recognition and intersubjective relations as postulated in his “master-slave dialectic” (Westphal 2009). My understanding of recognition is further influenced by the phenomenological work of Martin Buber and his “I-Thou” dialogical hypothesis (Buber and Kaufmann 1970) and the work of Frantz Fanon on recognition, particularly his writings on the subjectivity and personhood of the historically marginalized (Fanon 1968).
The result of these contesting modes of expertise is the production of a dynamic, situated, historical, and intersubjective “figured world” (D.C. Holland et al. 1998) of energy politics and environmentalism, incorporating yet also exceeding prevailing technical and regulatory discourses of energy development. This chapter considers in detail two events that contributed significantly to this figured world of energy politics and environmentalism on the Navajo Nation, putting the power of expertise and knowledge production on display. Both are moments within the urgent controversy surrounding Desert Rock between 2007 and 2009, yet draw upon broader repertoires of meaning associated with the Nation’s longstanding legacies of extraction. Through each event, I examine how the emergent object of Desert Rock produces a space for recognizing and contesting multiple forms of knowledge, exceeding the expected, instrumental, economistic techno-logics of energy issues. The first event under consideration is the series of public hearings on the Draft Environmental Impact Statement on Desert Rock (Draft EIS), held in July 2007 throughout the Eastern Agency of the Navajo Nation and three (off-reservation) cities in New Mexico. Though part of a strictly mandated and monitored federal process, their outcome was less curtailed or predictable. That is, despite the “failure” of the hearings to immediately transform the course of the project, they created a space that galvanized the movement against Desert Rock, shifting the moral weight of issue from the technical to the ethical-political.

The second event this chapter explores is the work behind the production of a document, “Economic and Energy Alternatives to the Desert Rock Energy Project,” a hybrid research report combining renewable energy science, engineering, and financing with Diné oral history and philosophy. Like the public hearings, the Alternatives Report
became a recognizable action of the movement opposing Desert Rock, enlisting new supporters, and situating a particular knowledge of technology and cosmology. Also working to redefine the terms of the debate, the Alternatives Report became a landmark event in its insistence on a new discourse of philosophical and ethical comportment in energy debates. Both events demonstrate how the process of materialization for an emergent object like Desert Rock is a contest of various modes of expertise, its efficacy measured not only through the usual, quantifiable outcomes (such as regulatory permits or the actual construction of the infrastructure) and more by the ability to garner public recognition and thus shift the moral weight within ongoing energy debates. At the same time, both events demonstrate how efforts to be recognized as an “expert” enunciating “truth” often operate within predictable scripts of democratic political engagement – the public hearing and the research report, respectively – yet at the same time often exceed the structural and procedural limitations of these scripts.

Such moments of democratic action, in this sense, are exceeded by their own participants, whose differential modes of expertise refuse to fit neatly, for example, into the three-minute slot allotted to speakers at the hearings, or the standard prose of techno-scientific analyses in renewable energy research. To use Spinosa, Flores and Dreyfus’ terms, these two energy events are not fully within the strict domain of the so-called “public sphere” of liberal democracy, filled with intellectual, “disengaged discussion” and abstracted opinions (Spinosa, Flores, and Dreyfus 1997). Rather, these events showcase practices of impassioned, specific, “practical expertise,” a perspective which requires “rootedness in particular problems” and “the expertise acquired by risking action from a particular perspective” (Spinosa, Flores, and Dreyfus 1997, 87). Spinosa et al’s
notion of “practical expertise” suggests that people involved in public disputes do not speak from an abstract repertoire of rules and principles in a realm devoid of power (as supposedly occurs in liberal debates in the so-called public sphere), but rather, “practical experts” engage in “interpretive speaking,” a “skill involved in changing what fellow citizens do by changing the way society understands and treats certain phenomena” (Spinosa et al 1997, 88). This practice of exercising practical expertise through interpretive speaking is thus a political practice as it vies for legitimacy and recognition within a broader network of speakers – some adversaries, some allies. Practical expertise is mode of democratic action not only beyond professional politics but which takes as its point of departure the “rootedness” of historically situated problems, such as the possible effects of constructing a 1500-megawatt coal-fired power plant in an historically marginalized community.

Given that Spinosa et al’s approach is about transforming action by way of transforming thought (“changing what fellow citizens do by changing the way society understands”), it is an approach that asserts the ethical dimensions of expertise. That is, to change action we must change thinking. In a kindred vein, this expanded notion of expertise and its engagements echoes Francisco J. Varela’s theory of “ethical know-how” (Varela 1999). Arguing that “skilled behavior” (akin to Spinosa et al’s “practical expertise”) is a type of knowledge widely unrecognized and thus undervalued, Varela asserts that “ethical know-how” is a mode of expertise that exceeds deliberate reasoning, bringing being to bear on thought and action. In Varela’a words, “an ethical expert is nothing more or less than a full participant in a community: we are all experts because we all belong to a fully textured tradition in which we move at ease (Varela 1999, 24). In his
analysis, the essence of cognitive intelligence resides in its embodiment, exercised not in reflection (in Descartes’ sense) but in and through action. Varela’s focus on practice and being moves our understanding of expertise in this new direction – from “know-what” to “know-how,” and where cognition and ethical expertise depends upon the corporeal existence of situated agents in specific environments, who have a perspective (Varela 1999, 55). In these formulations, expertise is not equated with abstract judgments or intellectual reasoning alone, but requires the skilled, embodied knowledge of everyday life lived in particular places.

In each of the two sections of this chapter, we meet a range of hybrid knowledges, practical expertise, and ethical experts, contesting for legitimacy as part of the democratic action produced by Desert Rock. First, the public hearings on the Draft EIS constitute an event(s) of “interpretive speech,” that is, “practical experts” (as well as “experts” in the conventional sense of the word) enunciating concerns over the proposed power plant in a way that attempts to transform the understanding of what is at stake in the Desert Rock issue. Beginning with the public hearing in Burnham (and an unanticipated, highly figurative “blackout” event) and a brief overview of the federally mandated public hearings process, the section foregrounds the speech of area residents, offering a sample of testimonies spanning nine of the ten hearings. This is followed by a discussion of the way that expertise operates within a network of clan and kinship ties, ethics of balance and beauty, and contributes to an affective genre of energy politics on the Navajo Nation. Second, the chapter turns to consider an exemplary activist-research report, which offers a detailed technical, economic, geographic, financial, and cosmological mapping of how renewable energy technologies could generate as much power, if not more, than the
proposed Desert Rock Energy Project. Detailing the arduous work behind the final product, this discussion aims to show how various modes of expertise, hybrid knowledges, and languages of difference had to be negotiated in order to produce a document that could speak to, and thus mobilize, a diverse local and trans-local audience. The discussion centers around how the Alternatives Report is a vehicle for technical, cosmological, and grassroots ethnographic expertise to merge, situating the authors’ proposal for high-tech solar and wind power within cultural-political desires for a future that is both traditional and technological. Taken together, these two energy events helped significantly shift the moral weight of the debate over energy development on the Navajo Nation, garnering wider recognition for the movement opposing Desert Rock.

I. The Public Hearings: Events of Interpretive Speech

A. Anatomy of a Hearing

Even indoors, the July heat of northwestern New Mexico numbed my senses. It was only ten o’clock in the morning, but the metal folding chairs were branding devices, searing the arms and legs of people as they stumbled inside the small chapter house in the community of Burnham, blinded by the sudden loss of sunlight. Overhead fans moved the dry air, and a few people used notebooks and Desert Rock literature to fan their sweating faces and necks, waiting for the meeting to begin. This particular public hearing was midway in a series of ten total hearings on the Draft Environmental Impact Statement (Draft EIS) for the Desert Rock Energy Project, proposed for construction just a few miles north of where we all sat. The stillness of the hot desert air on this day matched the tension in the room as community members from ground zero of the power
plant’s proposed site parked their trucks in the dusty lot outside and filed indoors to go on public record with their opinions on the project, or offer witness to others who would speak. Along the room’s rear concrete block wall, conspicuously overdressed executives and BIA officials stood poised and still, quietly watching the elderly men in cowboy hats and grandmas in customary velvet skirts enter the low-ceilinged room, all members of a community that had already voted down the proposed power plant. After adding their names to the “Speaker’s List” on a white dry erase board stationed by the open door, community members took their seats and waited patiently to be called forward by the meeting facilitator. The highly structured procedure offered three minutes to each speaker to share their comments publicly at the microphone, while others were encouraged to see the court reporters in the back of the room to record their comments in Navajo or in English. Following a short presentation about the technicalities of the proposed power plant, speakers began to make their statements, one by one, hour after hour as the morning wore on.

Suddenly, in the middle of one elderly woman’s ardent plea to stop the proposed plant, the dull whirring of the fans fell silent, as did the static feedback from the microphone and the chattering of the typewriters. The single, dim light bulb overhead faded slowly away. A hush came over the assembled crowd and suddenly, a shared recognition of a very ordinary event: the building had lost all electricity. In the minutes that followed, what began as confusion and dismay among many of the project proponents and hearing organizers gave way to a visible sense of irony among many of the project opponents. Moments after vanishing, the fans and typewriters buzzed back to life, powered by an outdoor portable solar photovoltaic system brought to the hearing as a
demonstration by a local solar power activist. He had the array of panels mounted in the open bed of his pick up truck, and when the building’s power outage occurred – as if by design – he patched his system into the building’s electrical wiring, an exhibition of the flexibility and independence of solar power. As the bare light bulb began to burn again, a fervent, giddy laughter rippled across the room. One grandma smiled broadly, shielding her eyes against the bright sun to peer through the door and catch a glimpse of the heroic system. “So, let’s continue,” said the facilitator, “it seems the power is back on.” Seated in her wheelchair, clearing her throat and smoothing the wrinkles in her pink blouse and long brown skirt, Alice Gilmore resumed speaking in Navajo, demanding compensation for her sheepdog that someone killed last winter out at the Desert Rock resistance blockade. Although the facilitator signaled that her three minutes had passed, Ms. Gilmore continued, “I’ve been sitting here all day to speak, I am taking more time.”

The National Environmental Policy Act (NEPA) requires an Environmental Impact Statement (EIS) to be issued by the lead agency on any large-scale development project – including projects slated for sovereign, American Indian territories. The unique legal status of American Indians requires the federal government to engage in government-to-government consultation with Native Nations “when contemplating actions which may affect tribal lands, resources, members and welfare” (NEJAC 2000: 5). The process of releasing the Draft EIS to the public and documenting the public’s response is the means by which democracy is supposedly ensured and enacted in (often

234 See http://www.epa.gov/oecaerth/basics/nepa.html for a full overview of the National Environmental Policy Act [42 U.S.C. 4321 et seq.], signed into law in January 1970, wherein Title I “requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony.”
controversial) projects subject to federal review. In the case of the Desert Rock Energy Project (Desert Rock), the Bureau of Indian Affairs (BIA) is the lead federal agency, working in partnership with the project developer, Sithe Global Power, and the Navajo Nation. The BIA and Sithe Global contracted the URS Corporation to write the Draft EIS on Desert Rock and on the connected action of an extension of the existing Navajo Mine (to provide coal resources to the power plant) and the document was published and made available to the public by the BIA on June 20, 2007. URS, in turn, contracted a company called Ecosphere to organize and facilitate the federally mandated public hearings. The law requires that public hearings be held to permit community members to register their opinions on the Draft EIS with the lead agency, which is then bound to review all of the statements and issue responses. In the NEPA process for Desert Rock, the BIA accepted oral and written comments from the date of publication of the document until the initial closing of the comment period on August 20, 2007, which was later extended until October 2007.

In May 2007, the same month that I arrived on the Navajo Nation for the beginning of my in residence fieldwork period, the BIA released the Draft EIS for Desert Rock. This 200-plus-page document – a mandatory assessment under federal law – was mailed out in CD format to thousands of stakeholders on and around the Navajo Nation. However, the electrical and other logistical requirements of such a high-tech format, not to mention its unwieldy length, made it inaccessible to the many rural-dwelling tribal members who have no electricity, no access to or capability to use a computer, and do not read English (or Navajo). A few hard copies of the Draft EIS were made available at border town libraries (Farmington and Gallup Public Libraries, for instance) and at the
Navajo Nation Library in Window Rock, Arizona, on the reservation. Yet again, this performance of accessibility – placing the document in a public space – met with intense critique, as many tribal members, especially elders living close to the proposed site, have limited experience with public, off-reservation institutions such as city libraries, nor would they chose to spend limited gasoline resources for the two to three hour round trip journey. The lack of culturally appropriate access to the information became a major point of critique made by the opponents of Desert Rock, especially tribal organizations like Diné CARE.

My first official fieldwork encounter with Diné CARE was at a press conference on June 18, 2007, the day that the Draft EIS public hearings were supposed to begin – but in fact the hearings had been pushed later a full month. Diné CARE called the press conference to critique the BIA for changing the dates of the public hearings at the last minute, without announcing a retraction of the original dates and with little or no publicity about the rescheduled hearings. I arrived at the Window Rock Museum where the press conference was to be held, and after walking through the large glass doors into the spacious, carpeted lobby, I was greeted by one young man wearing a stylish, tweed driving cap, several elderly women seated in chairs, wearing vibrant turquoise jewelry, and chatting quietly in Navajo with one another, and two or three middle-aged women – the lead organizers of this event. When I introduced myself to the young Diné man in the driving cap, he replied, half-smiling, “Oh – you’re the anthropologist they mentioned.

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235 This raises the methodological problematic of the “beginning” (and thus the end, as well) of fieldwork, given that I had seven years of background experience working from a distance with members of Diné CARE. As I discuss in the Prologue and Epilogue, this experience challenges standard relational and temporal boundaries of “the field,” which are being re-thought through the more networked approach to fieldwork many ethnographers undertake today.
Anthropology’s not the most popular profession out here, you know.” There was just one journalist, a news writer from the Navajo Times. The activists explained how this unannounced change of dates on the public hearings undermined the process of public participation and appeared to be an intentional confusion of the community members by the developers. This event confirmed my growing suspicion that what the media and economic analysts had largely posed as a technical issue was in fact far more than that. These women had not driven two and three hours from home to confront the press on the efficacy of Desert Rock’s super critical coal firing capacity or its claims to being “clean coal” technology. (They would, however, make these challenges later in the public hearings). Instead, the appeared in the Nation’s capitol that day to be recognized in their concern over thwarted democratic participation, arguing that the impacted community had not been properly informed or consulted in a major development decision.

Over the course of eight scorching hot days in mid-July 2007, the public hearings on Desert Rock were held in ten locations: in reservation chapter houses at Burnham, Sanostee, Nenahnezad, Shiprock, and Window Rock, and in nearby border towns of Farmington, Durango, Albuquerque, Santa Fe, and Towaoc (on Ute Mountain Ute territory, near Cortez, CO). To generate awareness about the upcoming hearings, a reservation-wide coalition of activists from organizations Doodá (No) Desert Rock, C Aquifer for Diné, Diné CARE, and the Black Mesa Water Coalition had ridden on horseback from the southwest corner of the reservation as well as from the Doodá Desert Rock campsite at the proposed Desert Rock site in Burnham, camping out along the way until they rode in to intersect at the Tribal Council Chambers complex in Window
Rock. Their ride attracted the attention of the media, supporters and opponents alike, so that when the first hearing was held in Farmington, NM on July 17, newspapers, blogs, radio broadcasts, and the bulletin boards in local convenience stores were abuzz with discussion and anticipation. Attendance at the hearings ranged from 70 to 200 people (with Santa Fe being the smallest and Farmington the largest hearing) and the length of the meetings ranged from three to seven hours, largely depending on the extent of Navajo-English and English-Navajo translation required. Out of 325 total speakers at nine of the ten hearings, there were 38 who spoke in favor of Desert Rock and 288 who spoke in opposition to Desert Rock over the course of 40.5 total combined hours of hearings.

The URS Corporation was responsible for compiling all of the oral and written comments, promising that official transcripts of all ten meetings would be made available to the public by Fall 2007. At the time of this writing, these transcripts have not yet been released, even though the company has been paid.

The “public hearing” followed a generic, predictable script, relying upon ideas of the good citizen, participation, transparency, and democracy. Unfolding like a social drama certain roles and actors, each hearing became a careful staging of technical presentation by the project proponents followed by personal testimonials and statements from the assembled audience. These texts were iterations, with minor variations, creating

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236 The trail ride, as a political action, is not limited to non-governmental activist groups. Navajo Nation Council delegates also use it every year, with many traveling on horseback for days from their home chapters to Window Rock for the opening of the year’s legislative sessions.

237 These numbers reflect all of the hearings (nine out of ten) except the hearing at the Sanostee Chapter House on the afternoon of July 24, 2007. This was the one hearing I did not attend personally out of the ten, and therefore was unable to obtain any profiles, testimonials, or numbers on the speakers. The Bureau of Indian Affairs, Navajo Office, should have the official record of all ten hearings, though it has not been released to the public. See Appendix A for a breakdown of the hearings and further explanation.
performative speaking encounters – though not true dialogues – between the developers (allied with the state, through the BIA) and the citizens of the region, Diné and non-Diné. For instance, each hearing began with a narrated power point presentation prepared by the URS Corporation, explaining the proposed project and the Environmental Impact Statement (EIS) process. Meeting facilitators (hired by the URS and Ecosphere as independent and neutral mediators) would read the presentation aloud, following a script dramatized by power point slides such as, “How to Make Your Comments Most Effective,” instructing community members to adhere to their 3 minute time allotment, be specific in their comments, and speak to the Draft EIS document, citing page numbers, if possible. At most of the meetings – and in all of the off-reservation meetings – the back of the room, between the court reporters and a water cooler, were colorful poster boards mounted on easels, produced by the URS Corporation for the EIS process. These boards displayed topographical maps for the proposed alternatives in the Draft EIS, flow charts of the scoping and EIS process, reminders of the three-minute time limit and instructions on “How to Make Your Comments Most Effective,” and computer-generated “visual simulations” of the landscape pre- and post-Desert Rock, showing an uninhabited, barren, blue-skied terrain in the first image and an equally clear-skied photograph in the second image, with the addition of a 1500-megawatt power plant. Many speakers challenged this simulation’s absence of humans and animals and continual presence of blue skies, given the pervasive yellow haze already blanketing northwestern New Mexico from existing power plants. The lead facilitators welcomed everyone to each hearing, reminding attendees that the poster area “is staffed by individuals with technical expertise,” should anyone have specific questions.
They explained the various phases of the long-term EIS process, as mandated under the National Environmental Policy Act. First, “Scoping,” which occurred from December 2004 through March 2005 and included 9 meetings in the region, three of which were on the reservation, identifying four central concerns expressed by the local community: (1) impacts on animals and plants used by the Navajo; (2) effects on local water quality due to the large amount of water required by the plant; (3) impacts on Mother Earth; and (4) the need for broader discussion of the “project alternatives” to the proposed “Alternative B” action of Desert Rock – the first (“Alternative A”) being a legally required “No Action Alternative,” and the other (“Alternative C”) being a proposal for a 550MW Generation Facility, that is, a coal power plant with one-third the power production of Desert Rock. The second phase of the EIS process was collection of data on environmental and cultural resources, wildlife and livestock, and water uses. The power point slide accompanying the data collection phase showed photographic images of the majestic limestone landscape, grazing cows, and Navajo cowboys on horseback, their eyes gazing toward the expansive sky. Third, the EIS process “identifies impacts, to help the BIA and other agencies to make decisions on the project.” Next, the alternatives are evaluated: Alternative A = No Action; Alternative B = the Proposed Desert Rock Project; and Alternative C = a 550MW power plant facility. This phase of evaluation also included analysis of the associated transmission lines and well-field locations, discussing the environmental consequences for each alternative. Next is the phase we are currently in today, says the facilitator: the public review period phase,

238 The National Environmental Policy Act requires that an agency always consider “no action” as one alternative to a proposed action. (Title 40, Code of Federal Regulations, Section 1502.13(d) [40 CFR 1502.13(d)].)
which continues through ten total public hearings and officially closes on August 20. Following the series of public hearings, the Final EIS will be released with changes made based on the comments submitted and finally, a Record of Decision (ROD) will be released to the public. During the meetings, activists and their attorneys successfully pressed to have the comment period extended to October 9, 2007, at which time the BIA received more than 54,000 total comments from the public on the Desert Rock project. At the time of this writing (more than three years since the public hearings), the BIA has not yet responded to all of the comments, as they are bound by law to do, nor has a Final EIS been released.

Portion two of each public hearing was devoted to comments, oral and written. With court reporters stationed in the back of the room and glossy, color forms available for recording the confidential comments of people who, for whatever reason, chose not to stand at the microphone before the assembled crowd, the process enabled these several methods of highly-structured participation. However, the focus of most of the comment period of each meeting was the much-anticipated, performative oratory of those who had come to speak for and against Desert Rock: community leaders, scientists, elders, students, tribal officials, policy analysts, shepherders, attorneys, executives, mineworkers, engineers, and neighbors. The facilitator had given a strict set of rules and procedures, enumerating the official procedures for participation: signing one’s name on the white board; limiting comments to three minutes, which would be signaled by a yellow card at one minute remaining and a red card when time was up, giving any remaining parts of your statement to the court reporter seated in the back of the room; avoiding conversation while speakers are at the microphone; moving to the chair in the
front row marked “Reserved for Speaker on Deck” if you are the next in line to speak; and spelling your name, city and state where you live, and your organization for the accuracy of the public record. All comments would be translated, from English to Navajo or from Navajo to English, as needed, by Joanna Manygoats, licensed court interpreter hired for all ten hearings.

These rules were thus the structured mode of participation, designed for efficient, streamlined and standardized participation by the public.239 Although several direct actions and demonstrations had been conducted since December 2006, both at the proposed site and in the tribal capitol of Window Rock, these official meetings were the only chance the community had to come together, face to face, with the project proponents (Diné Power Authority employees and Sithe Global Power executives) to voice their opinions on the public record.240 However, speakers regularly overflowed their three minute time limit – especially Navajo elders – sending the facilitators (two Anglo women from nearby border towns) into a minor panic when first their yellow “1 minute left” time cards and then their “time is up” red cards were ignored, outright. As it turned out at all ten of the hearings, people had waited months or years and traveled far to voice their opinions for, or against, the power plant and, like Ms. Gilmore in the vignette that opens this chapter, would not so easily relinquish their platform to speak. Because

239 NEPA defines the public’s role as follows: “The public can participate in the NEPA process by attending NEPA-related hearings or public meetings and by submitting comments directly to the lead agency. The lead agency must take into consideration all comments received from the public and other parties on NEPA documents during the comment period.” See http://www.epa.gov/oecaerth/basics/nepa.html#eis. Last accessed October 16, 2010.

240 Other sites of voicing opinions on this contentious issue include op-ed pieces in the weekly Navajo Times and direct actions and other public events organized by the movement against Desert Rock. These sites of action will be discussed elsewhere.
the Draft EIS was only published in English and never released in the Navajo language (or in Spanish, for that matter); because it was placed in hard copy format in very few libraries in the region, making it inaccessible to much of the rural population; because it was mailed to community members (who requested a printed copy) in CD format when many people in the impacted area, especially elders, have no access to or operational knowledge of computers; because the BIA’s website and staff emails were “inoperative” that summer, purportedly due to the ongoing Cobell vs. Kemthorne lawsuit and related web-hacking and cybersecurity fears; and because the document was hundreds of pages long, with technical and legal complexities, the majority of community members had not been able to read or review the document they were criticizing or supporting prior to their statements at the hearings. Yet as many would tell me, “We don’t need to see that paper – we know what this is all about.” Overall, community members knew what they were up against: a development project endorsed by their tribal leaders, designed and financed by energy corporations, and following a familiar model of

\[241\] In 2007, the case was known as Cobell v. Kempthorne (formerly Cobell v. Babbitt and Cobell v. Norton) but became Cobell v. Salazar soon thereafter (the name changes following the succession of each Secretary of the U.S. Department of the Interior, over the history of the case). The case is also known as the “Individual Indian Monies” case. Filed in 1996 by Louise Cobell, a member of the Blackfeet Tribe (Montana), this is a class-action lawsuit against the United States government over the historical mismanagement funds related to Indian trust assets. As the fiduciary agent of Indian trust lands, the Dept. of the Interior was held responsible for the accounting for these monies in question. In 2008 (under Secretary of the Interior Kempthorne), a settlement was reached, but was subsequently overturned in July 2009. In December 2009, a settlement of $3.4 billion was announced. The relevance to the Desert Rock case was that in 2007, at the time of the Draft EIS hearings, the privacy and security of the DOI’s information systems had been in question at least since 2001, with its online information technology systems containing the Native American trust fund date deemed “vulnerable” to hackers. This resulted in a closing down of the BIA and other related websites until the security of these information systems could be assured.
exporting power to Southwestern cities, while many of their homes (as many as 40% reservation-wide)\textsuperscript{242} still are not electrified.

B. Testimonials: A Study in Practical, Ethical, and Technical Expertise

The following statements illustrate the range of expertise and varying positions of authority deployed in this structured performance of participation, as well as the future-oriented discourse of the debate. Though many touch upon issues of environmental degradation, protection, or pollution, there are other interests, issues and knowledges at stake, including knowledge of the landscape and rural livelihoods; knowledge of Diné creation stories, Fundamental Laws and Navajo philosophy; and historical knowledge of the colonial conditions of extractive industry and its negative effects on Diné bodies, lands and communities. Excerpted from an extensive set of particularly dynamic public comments made at several of the ten hearings during July 2007, these highlights are taken from my fieldnotes and audio recordings.\textsuperscript{243} It is crucial to note, however, that the small sample of testimonials offered below is not representative of the breakdown of pro versus anti Desert Rock sentiments. Overwhelmingly, the vast majority of speakers at all ten hearings gave statements opposing Desert Rock, while the small minority of Desert Rock

\textsuperscript{242} The Nation’s own Navajo Tribal Utility Authority (NTUA) estimates that 38,000 homes on the reservation have electricity service, while 18,000 homes do not. When asked about the accuracy of these numbers, one NTUA employee confessed that they really do not know for sure, due to the fact that so many homes are in extreme, often inaccessible rural locations and the NTUA has difficulty coordinating information across the Nation’s five Agencies (similar to provinces) that it services.

\textsuperscript{243} Although all of the text is taken from my personal fieldnotes and audio recordings, I choose to use the actual names of speakers rather than aliases, since their identities and statements were disclosed through their public testimonies and are on public record. I also choose to note the person’s self-identified ethnic and/or racial identification, because these differences were meaningful for the “inside” versus “outside” discourse that emerged during the public hearings and also make it possible for the reader to identify tribal members from border town residents.
supporters were largely the same set of people (Diné Power Authority employees, for instance) who attended two or more hearings. Each hearing became an important event in the broader Desert Rock controversy, in which a wide range of actors with differential investments were assembled, engaging knowledge-practices and differential modes of expertise, delivering testimonials with affect or intensity, asserting specific identities, and in doing so, conjuring particular utopias or dystopias.

“I understand we are following a legal process here … but we haven’t incorporated all the issues we know are coming. Adding any nitrogen oxides, mercury, etcetera, is not trivial. Process follows the laws but we have to go beyond that in these meetings. We have to move toward the future. I hold a Ph.D. in Chemistry and have worked on fuel cells and currently work on efficiency… All of these things lead to a future with life in it.”  

“I hitchhiked here and I will hitchhike home. I live simple. I dedicate my three-minute speech to a little woman who fought an earlier power plant – Colleen Bates – who challenged Chairman Peter MacDonald. I call my talk ‘Sacrifice of the Glittering World’… Young people shouldn’t be employed in dangerous, low-level jobs. They need to be educated to think critically … The Nation has chose to make the Four Corners region a sacrifice region.”

“This Nation is a dysfunctional family … When we [Navajo youth] went away and got education and came back, you called us “apples” – red on the outside, white on the inside.” [Speaker holds up half an apple to dramatize his point]. “The core – we’re all Diné to the core. This is a balance process … These bilagáanas [Americans, or “whites”] are pushing us from the outside.”

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244 Gail Riba, (Anglo), Chemist, Santa Fe, July 20, 2007.
245 Lorraine Claushcee (Diné), 74 years old, retired teacher and reading specialist, Shiprock, NM, July 23, 2007.
246 Chris Clark-Deschene (Diné), Attorney with Diné Power Authority, Burnham, NM, July 18, 2007.
This first set of testimonials, taken from three different hearings, illustrates the differing mobilizations of expertise, which are in turn linked to differing mobilizations of Diné identity. When an elderly Diné woman such as Lorraine Clauschee speaks about the “Sacrifice of the Glittering World,” she commands authority based on her age, gender, and reference to Navajo creation stories and ontology, in which the Glittering World is the fifth and present world, inhabited by all five-fingered beings. She is making an apocalyptic claim, tying the notion of sacrifice to geopolitical ideas of the Four Corners region categorized as a “national sacrifice area” (along with Southern Appalachia and parts of the Great Plains) by the Department of Energy and the Trilateral Commission.247 At the same time, she is admonishing educational trends, which have advanced technical skills among Navajo youth at the expense of critical thinking. Similarly, when the woman with a doctorate in Chemistry speaks about mercury and other emissions from coal processing, she commands an expert knowledge that supports the anti-Desert Rock movement, despite her political and ethnic role as an “outsider” (Anglo, or “bilagaana”) to the Navajo Nation – fitting a role that has been demonized by many Desert Rock supporters, such as the speaker who claims, “These bilagáanas are pushing us from the outside.” The spatial positionality of “outsider” versus “insider” is a centrally contested position of power and critique in the controversy, with “outsiders” being shifting actors, seen alternately as allies and as adversaries. While employees of Diné Power Authority (DPA) have been highly critical of tribal members and activists who align with “outside”

environmental groups and citizens of the region, activists criticize DPA for failing to see their own “outside” alignments with the developers and financiers that make the Desert Rock proposal possible. Shared by both sides of the debate, however, is a common understanding of a territorial “inside” and “outside” to the Nation, which also figuratively aligns with notions of historical and ethnic difference (insiders being Navajo, outsiders being non-Navajo), even when very often, “outsiders” turn out to be other Native Americans, and “insiders” include Anglos who work for the Nation.

“It bothers me when Sithe Global says there are going to be jobs, but who is asking for jobs? People on the rez – we have jobs. We are ranchers, we’ve always been ranchers. That’s what we love to do. We raise cattle, sheep, horses, pigs, goats – we’re Native Americans, that’s in our blood. We love to work with animals. This thing about jobs is an excuse to get people to agree. They are not really concerned about the Navajo people.”

“I support Desert Rock Energy Project and I am asking the BIA to support Alternative B [Desert Rock 1500 MW plant] on the project. When I am driving up here, I see beautiful homes in this area. They have power, streetlights, people working downtown. We want those same opportunities. We want power to every home, we want streetlights, we want water to our homes on the rez. Many of you never lived without running water or electricity. I live that kind of life. All my life I live like that. We raise sheep, cattle and horses to feed ourselves. When you are driving out there, you see your people unemployed. You don’t know what it means. Out here, you run into hospitals. Hospitals need electricity – schools need electricity; we can’t get away from it. The Navajo Nation Council approved the lease for Desert Rock last year in a vote of 66 to 7. Shirley signed off on that. They debated for many years, finally came to a vote. Let’s see how far we can go – money for the Nation, elderlies, scholarships for the kids, that’s what we are about.”

“I live approx three and a half miles northeast of where the proposed site is. I’ve

248 Victoria Alba (Diné), Burnham resident and Doodá Desert Rock activist, Durango, CO, July 18, 2007.

249 Herbert Pioche (Diné), Durango, CO, July 18, 2007.
been camping out at the Doodá Desert Rock camp area since December 12th of this year … I do not want Desert Rock. I say no to Desert Rock. This started approximately 6 years ago when I got involved in the issue. I keep telling Mr. Stephen Begay [of Diné Power Authority] that I am opposed to the project. They have sold us, they have sold our land to these companies and sold our souls to them. Joe Shirley does not help me, he continually says there is no money for our chapter. I heard this electricity is not for the benefit of the Navajo people. It has contaminated the water and the food. I have noticed and have observed that there are more resources that come out of the New Mexico area of the Navajo reservation and we’ve put more money into the Navajo Nation revenue account and still they have displaced us, they want us to move away from where we are residing. They talk about jobs – none of our people benefit when it comes to jobs. Not in these chapter areas. A lot of our people have worked at the two existing power plants but they have passed on. There are new employees at these power plants, union or other crafts organizations. They will be the ones to get the jobs, not our children in those areas that are affected.”

The emphasis on jobs and employment was a central theme of testimonials given at all ten of the hearings. The promise of jobs (whether realistic or not) is one of the most persuasive arguments made by the Desert Rock proponents, given that the reservation’s official unemployment rate currently hovers around 50%. However, development itself is tied to a certain mode of understanding labor, bringing along an economy based on cash and on exchange value, which is not fully commensurate with the lived experiences of many Diné people. In tension here is this developmentalist understanding of labor (the full time, wage-earning, tax-paying job with benefits) versus an understanding of labor that could be better thought of as livelihood – practices of sheepherding and livestock care, weaving, seasonal agricultural work, and sporadic employment in service industries, often the mélange of cash and non-cash earning practices deployed by many Navajo


251 According to the most recent Navajo Nation Comprehensive Economic Development Strategy (released in 2009), the Nation's unemployment rate has risen from 44% in 2000 to 50% in 2007, although the per capita income has gone from $6,512 in 2000 to $7,121 in 2007. In 2001, over 56 percent of Navajos lived below the poverty level, the highest poverty rate in the U.S., even among American Indians.
people in order to make a living. Victoria Alba’s claim that such livelihood practices are “in our blood” resonates with many Diné people, even those who no longer keep sheep or live close to the land, as their parents or grandparents would have lived. It is a powerful identity claim, constituting a large part of what it means to “be Navajo” in the imaginary of Diné identity; and importantly, what it means to “be Navajo” is one of the stakes involved in the Desert Rock controversy, expressed over and over at the public hearings.

The reversal of this identity claim is expressed by Pioche, who supports Desert Rock as a means of moving away from these everyday life practices that tie people to the land (raising livestock for food) and experiences that typify Diné identity, such as having no running water or electricity in the home. His desire for infrastructure requiring electricity thus trumps the preservation of rural livelihoods, which many anti-Desert Rock activists maintain as a core value. This contradiction in the two speakers’ positions thus hinges on the same lived reality: keeping animals is linked with a lack of running water and electricity – all of which are seen as quintessentially “Diné” – yet for the first speaker, this sort of livelihood is something to maintain and move towards, whereas the second speaker sees such livelihoods as a barrier to better health, education, and advancement. Finally, Pauline Gilmore, one of the elderly women activists at the forefront of the anti-Desert Rock movement, expresses a common distrust among area residents of the promises of employment made by the project proponents. She, like others, has fought for her children to receive jobs at the two existing power plants in the area, often unsuccessfully.\(^\text{252}\) Her sense of a disproportionate investment of local

\[\text{252 The Navajo Preference in Employment Act (Title 15, Chapter 7 of the Navajo Nation Code, last amended by the Tribal Council in October 1990) does not guarantee employment of Navajos, but rather requires all employers doing business within the territorial boundaries of the Navajo Nation to give}\]
resources into the Nation’s growth while facing the threat of displacement from her home is a bitterness expressed by many residents of the affected region, reflecting an historical knowledge of past promises unmet by previous energy development projects.

“I am also a member, embarrassingly, of the Navajo Nation. My census number is 216323. Last time I gave that number I lost a scholarship to attend a school. But that’s not all I’ve lost due to these things. The “we” I speak of is my family … a family of miners. We’ve got schools built from radioactive materials left over from these processes. These beautiful houses you see as you drive into Farmington – these are built on blood. This is not worth it. 216323 might as well be tattooed on my arm, because this is a holocaust. Our fate as a people is being decided by other people, not by us. The pay-off the Navajo Nation is receiving is blood money. It’s unconscionable. When is it going to stop? What do we have to do? I am not different than any of you. I graduated from college, I have a degree, two degrees, but that means nothing. What can any of you do to make a difference? Answer that question, and do it.”

“I work for Diné Power Authority and am speaking on behalf of the Desert Rock project and its technology, which I believe in strongly. I went to a similar project in Turkey and really liked it. Water use will be about 80% less than in existing power plants … There’s a decommission clause at some point in the future. The economic consequences of failing to develop coal … this means higher energy costs, which directly suppress family incomes … The conversion to natural gas would have an impact on the poor – in terms of cost of energy. Socio-economic status is highly related to health status … We want the nice jewelry, the nice haircuts, the air conditioning – everything that mainstream America has.”

The contrast of these two speakers is striking, particularly in their assessment of the past and future and the commodities associated with being “healthy”. While Craig

“preference in employment to Navajos … [including] specific Navajo affirmative action plans.” The Act is a series of labor laws pertaining to recruitment, referral and advertising (as well as union associations, wages, contracts, grievances, and other labor concerns) but again does not ensure the hiring of Navajos over non-Navajos in specific enterprises.

253 Craig Benally (Diné), Durango, CO, July 18, 2007.

Benally recalls a history of radioactive contamination from decades of uranium mining on the reservation, Suzy Baldwin looks ahead to the possibility of material goods that the plant would deliver, before it would be decommissioned “at some point in the future.” Her desire for the jewelry, haircuts, and air conditioning associated with “mainstream America” contrasts sharply with Benally’s association of Farmington’s “beautiful houses” (also of mainstream America) with a legacy of the energy industry’s exploitation of Navajo lands and laborers. They are, in a sense, telling two different stories of modernity – one that has already exacted a “holocaust” on the Navajo people versus one that places modernity on the horizon, wherein health is linked to increased income and the symbols of advancement and comfort (i.e., air conditioning) are just barely out of reach. However both are speaking to an historical knowledge of their “fate as a people [is] being decided by other people, not by us,” though they resist that legacy of external control in different terms, following different values and desires.

“I live 10 miles from the site – but I guess I won’t be affected, since they’re telling us it won’t go beyond 8 miles. I guess I’m alright. Where I live you can look into the pollution – it goes from yellow, to brown, to black. You don’t have to be a scientist to know that this is not right – not good for us. When I drive down the road and my eyes burn and I cough, this is not good. Who do they think we are? Do they think we are that ignorant and stupid, that we are going to be ok with another power plant? We have been affected since Contact – first it was genocide, then forced relocation. Why not put that into the “impact statement” that has been impacting us for hundreds of years? Then it was livestock reduction, then it was uranium mining. My people are sick with bad health, the leaders at the top are sick with greed. Here’s another comment for the BIA, DPA, and Navajo Chairman: you are going to allow this project no matter what we say, because of the greed and money, this sickness that is there. No to Desert Rock! We don’t need another power plant on top of what we’ve got. There is a canyon of ash down there, a mesa of ash, and when the wind blows, it blows right down onto my people … Look at the alternatives – the sun, and the wind” (my
“We have many issues that are factual and proven that affect us – diabetes, etcetera. This is not Arizona Public Service [Four Corners Power Plant], this is not San Juan Generating Station, but a much cleaner and more efficient power station. We have the opportunity to lead the way into the future for establishing standards that will allow cleaner air, internationally. This is best for the Navajo Nation. There are many chapters with no economic future, no source of income … I’ve been a coal miner for 33 years, it’s all I know, all my life. Has helped me give an education to my children. Being an electrician is an honorable trade, a carpenter, a welder … an honorable trade.”

“I am Research Director at the Southwest Research and Information Center here in Albuquerque. The Alternatives section of the environmental statements says, ‘the purpose of this proposal is to support a lease to generate economic benefits from coal resources on the Navajo Nation,’ and the Alternatives section also states that “solar and wind alternatives are technically feasible and would generate smaller air emissions than the current proposal.” The Alternatives section says it would take approximately 20,000 acres to provide enough land for a solar power plant which is just about the size of the proposed mine. So it seems to me that the dismissal of solar alternatives in the alternatives section of the impact statement is inappropriate and is not supported by the argument provided there. The argument is disproportionately shallow for a firm that calls itself ‘the world’s largest engineering company’ and conclusory rather than technical in nature. The potential for using the lands for solar generation would provide the employment opportunities that trades and residents are interested in, would protect the land’s surface by preserving many of the cultural sites and is compatible with grazing, and those alternatives should be considered for generating economic benefits from those lands. The coal power plant is a distraction in my opinion from trying to generate economic benefits from Navajo lands … Navajo people want to be in control of their resources, generating energy from sustainable technologies rather than resource extraction that has major emissions problems. There is also a substantial history of uranium mining in northwest New Mexico, mentioned about 15-20 times in the environmental statement. What is not mentioned is that the coal proposed for burning also contains uranium, as do all coals in the Southwest.”

255 David Nez (Diné), Towaoc, CO, July 18, 2007.

256 Barry Dixon (Diné), Nenahnezad, NM, July 23, 2007.

The differential mobilization of technoscientific knowledge in these three, very different statements – two anti-Desert Rock and one pro-Desert Rock – illuminates the slippery quantification of health, air quality, water quality, and technical expertise involved in these hearings. While the first speaker claims we don’t have to rely on science to prove the negative impacts of the existing energy industry on the region, the second speaker echoes the “clean coal” discourse espoused by the project’s proponents. The third speaker attacks the Draft EIS document itself, critiquing the logic of its argument and its assessment of the best means of achieving economic benefits for the Nation, which he considers to be wind and solar power, while also evoking the legacy of uranium mining by noting the uranium contained in coal. Although all three speakers call upon science to give authority to their statements, the appeal to the science of wind and solar power by David Nez and Paul Robinson stands in strong contrast to Barry Dixon’s appeal to the science of “clean coal.” Dixon’s claim that Navajos “have the opportunity to lead the way into the future” with Desert Rock further contrasts with many of the wind and solar power advocates who locate coal as a resource of a past that should be left behind, while the sun and wind are resources of a valued past (e.g., tradition, or customary practice) and a hoped-for future. Other speakers echoed these discourses of technoscience and ethical futures in their statements, positioning the Navajo Nation as a global player in energy development with the power to “set an example for the region and the world.” Standing at the microphone inside the Ute Mountain Casino in Towoac, Colorado, on Ute Mountain Ute tribal land, a middle-aged woman addressed the project developers:

“I would like to know who your customers and buyers are. California will not
buy your power with their new low-emissions standards. Arizona and New Mexico could pass similar measures. The photo you show of the power plant is interesting – it shows a clear blue sky above the simulated power plant – no particulates, no hazy skies. *I ask the developers of this power plant: would you live next to this? Would you raise your children by it? The Navajo Nation has a great opportunity to set an example for the region and the world. Investigate renewables in the form of wind, solar, and geothermal … you could be on the cutting edge of the future rather than dragging on the toxic waste of the past*” (my emphasis).258

Finally, health impacts of coal emissions’ effects on the air and water were of utmost concern to those opposing the plant and were expressed both in technical terms as well as in the language of experience, historical and traditional knowledge. At the first hearing in Farmington, New Mexico, an elderly man with emphysema slowly made his way to the speaker’s podium, weighed down by an oxygen tank on his back, tubes connected to a mask on his face, and said:

“You can look at me and tell which side I’m on – clean air. I not only wear my oxygen on my back like an artificial lung, I have two dogs that keep my blood pressure down. I thought this hearing about the power plant would be about shutting down the existing two plants. New York City has cleaner air than we do. I have a very sensitive air quality meter built into me, down in my lungs. It’s very simple – don’t build Desert Rock and shut down the other two.”259

“I vote at the Burnham Chapter. I support Alternative A [No Action] for many reasons. One, water. Two, the health impacts on people and the livestock. The livestock need water as well and they need the environment to graze. Ruining the water and the environment is a detriment. I oppose and stand in opposition to the Desert Rock Energy Project. Water is very precious and scarce. I have no running water in my home … There were many promises broken from companies

258 Silvia Fleights (Anglo), Towoac, CO, July 18, 2007.

259 David Hutchinson (Anglo), Farmington, NM, July 17, 2007.
like this. There is a water line about 22 miles from my home and we have to haul water every day for our livestock and domestic use. My family has livestock and for that reason I oppose Desert Rock being built because of the contaminants and pollutants that would go into the water and the vegetation.\textsuperscript{260}

“I’m an RN in the OB-GYN unit at San Juan Regional Medical Center and I’m concerned about the Draft EIS’s bias toward Alternative B [Desert Rock]. Only Alternative A [No Action] is the safe alternative for embryonic development. Mercury is the second most toxic substance to our body, second only to plutonium. If a woman is 150 pounds, her fetus would get 10,000 times exposure to the mercury level she is getting. Most mercury exposure is to the lungs, by pulling it out of the ground in the form of coal, and it will stay with us. We have high birth defects in this region already – one to two out of every one hundred.\textsuperscript{261}

“I am from Little Water, New Mexico, four miles from the proposed Desert Rock site. I have lived there all my life, educated mainly in Navajo philosophy. Grown up, taught, before I could even walk. Brought up in the culture, a spoken language. All oral – there are no written records. \textit{This is what is at stake: the very philosophy that makes us Navajo.} The defining moment that gives us our spirituality, the core values of the four sacred directions and four elements of life. Most of us are offended to drink out of somebody else’s water bottle – backwash, disease, contaminants. Right now, a drilling site is gong into the Morrison Aquifer, the entire water table for the Four Corners Area. Is that not backwash? Contamination? “Clean coal” -- what is clean coal? You pick it up, you get the black stuff on your hands, you burn it and you get some kind of exhaust. It’s downright insulting when somebody from your own Nation, your own brother, is spearheading this operation [referring to Stephen Begay of the Diné Power Authority and his clan relation to the Dixons] … The four sacred elements of life are sacred to all – it does not discriminate. We all breathe the same air, drink the same water” (my emphasis).\textsuperscript{262}

\textsuperscript{260} Harriet Yazzie (Diné), Window Rock, AZ, July 25, 2007, English Translation by Joanna Manygoats.

\textsuperscript{261} Nora (Anglo), Farmington, NM, July 17, 2007.

\textsuperscript{262} Hank Dixon (Diné), Santa Fe, NM, July 20, 2007.
Hank Dixon’s statement, “This is what is at stake: the very philosophy that makes us Navajo,” cuts to the quick of these public debates. Whereas the majority of the non-Diné speakers gave testimonials that “stuck to the facts” of coal, mercury, carbon dioxide, the NEPA process and shortcomings in the Draft EIS document, air and water contamination, landscape ruin, and unexplored wind and solar alternatives, a vast majority of the Diné speakers at all ten hearings spoke on a more intensive register of meanings and self-identifications – of being recognized as Diné. Their comments worked to produce a “figured world” of what means to be Diné in relation to technoscientific developments. Even the many Diné speakers who stood in favor of Desert Rock worded their comments in terms of Diné identity, or what Diné people could or ought to become in the future. For instance, Stephen C. Begay, General Manager of Diné Power Authority and perhaps the most controversial figure for many anti-Desert Rock activists, spoke in terms of Diné identity and the possibility of a sovereign future: “This is a Navajo Nation project. We are trying to become self-determined, self-sustaining … and we all use electricity. That’s what we want – we like it.” Begay went on to discuss Diné Fundamental Law – the Diné code of ethics and philosophy – saying, “that’s what this is all about.”

C. Recognizing Relationality: Clan and Kinship Ties

Kinship – a classic anthropological concern – surfaces here as a core element of how organizing work is done on the reservation, how alliances form and disintegrate, how memories and longstanding feuds play out in contemporary coalition building and

activist practice. Often taken to be the essence of Diné identity, clan relations are recognized publicly through a scripted introduction of one’s maternal (who one is “born of”) and paternal (who one is “born for”) relations. However, at the same time they are deemed essential and primordial, many people acknowledge the more recently created clans, such as the Nakai or “Mexican” clan, a reminder of Diné encounters with the Spanish and their descendents prior to Anglo arrival in the Southwest. Such deep ties of kinship and clan relations not only matter among those who oppose Desert Rock, but cross-cut the movements for and against the power plant, binding people to one another in intimate ways, despite their different social positions and political alignments. For instance, Elouise Brown, leader of the Doodá Desert Rock group opposing the power plant and mine expansion, openly acknowledges her clan relationship with Stephen C. Begay, Director of Diné Power Authority and leading proponent of the power plant Brown works ardently to block. Protocols and practices of clan relations mandate particular kinds of recognition and greetings when relatives meet. Therefore, during the public hearings, if Elouise and Stephen met as they entered the building where the hearing was taking place, would greet one another in Navajo, according to the paternal/maternal and gendered relation (for instance, shideezhi or shizeedi, depending on the maternal or paternal relation to the speaker as well as the gender of the addressee’s parent). Recognizing one’s relatives – clan relatives or more sanguine familial relatives – is not only a core part of what is considered a proper Navajo method of self-introduction, but is considered necessary prior to making any public statement. As a result, statements of clan relations – often across political divides – opened many of the testimonials made by participants in the public hearings, creating a sense of community, kinship, and
solidarity at the same time these participants were challenging specific relatives’ actions, philosophies, and public positions on specific energy projects.

Recognizing and respecting one’s relatives also put certain constraints on the way in which some activists chose to approach their adversaries. Anna Frazier of Diné CARE, on multiple occasions, noted how she was related to so many of the tribal government delegates that she always approached them with respect and recognition, even when she met them to debate energy policy or development schemes they were supporting and which she was opposing. This over-arching respect for historical relationships, even when the terms of the encounters were rife with tension and dissent, at moments rendered the controversy intimate, familial and infused with a sense of responsibility. That is, in the Diné concept of k’é, which guides ethical action, one is responsible to relatives in material and spiritual terms, providing financial assistance or in-kind help when resources are scarce, and attending to the health and well-being of people through ceremony when someone is ill. K’é implies relationality as well as responsibility to those relations. Such responsibility, as figured by k’é, is not optional nor does it operate in private; it is a public practice of recognition, evidenced by public greetings and introductions of self to relatives, demonstrations of support through the production of meals, leveraging resources, and organizing of multi-day ceremonies. During the public hearings, and in all of the events surrounding the Desert Rock controversy, k’é tied opponents to one another in complex and contradictory ways, sometimes galvanizing the movement (when many relatives worked harmoniously on a given project – as will be described below in section II on the Alternatives Report), but at other times fracturing the movement (as when relatives at odds with one another vied for recognition within the movement
organizations, challenging the principles of respect and reciprocity normally practiced under *k’e*).  

### D. Debating Balance and Beauty

Within this small sample of public statements, we see Desert Rock opponents appealing to health issues, air pollution, histories of oppression ("genocide" and "relocation"), techno-science, creation stories and Diné philosophy, education, employment, family, and histories of uranium and coal. While we see Desert Rock advocates appealing to education, Navajo identity, tribal self-determination, material goods, modern infrastructure, employment, energy costs, global energy technologies, and poverty. Within these themes (read more extensively across the nearly 400 total oral testimonials given during the hearings), the science of the project (e.g., supercritical boiler technology, emissions, economic projections, water usage) is claimed and contested by both sides of the debate, regarding what it means to be, think, and act Diné in the face of such difficult development decisions. Likewise, we see different actors able to claim and exercise authority in different ways, deploying different speech genres and different cultural referents. It is a shifting terrain of truth-claims – with elderly grandmothers claiming utmost authority in certain moments while lifelong miners claimed their own authority in others. Overwhelmingly, however, the spirit of the meetings was cathartic and weighted towards the resistance movement. Albeit deficient and constrained by time limits and formal protocols, the public hearings process became

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264 I have made a personal and political choice in this dissertation not to indulge in an explication of the movement’s fractures. Fractures, as part of the social drama of human life, are endemic in any political action or social movement.
a stage on which ordinary citizens could assemble to see and be seen as a concerned public, and to build a momentous critical discourse based in particular understandings of who they are, what they know, and what kind of world they want to construct. In this way, the hearings galvanized the movement, above and beyond the particular statements that went on record. Even if none of their comments “counted” in the technical register sought by the BIA, citizens (who might or might not self-identify as “activists” or affiliates of any particular organization) were able to clarify the stakes of the controversy as being more complex and nuanced than the “jobs and development” discourse offered by the project proponents. Meaningful for the majority of the speakers was conserving a landscape and the practices associated with that landscape (i.e., herding sheep, living in a rural homestead, visiting family grave sites, enjoying vistas of Shiprock and other familiar formations), and maintaining “balance” or “beauty” for future generations.

This assemblage of testimonials illuminates many of the different modes of expertise and meanings contesting for power, within the confines of a restrained, orchestrated, mandatory process of “public participation”. It is not just the act of coming together to debate particular development issues that constitutes this as meaning-making practice, but the ways in which these concerns are made public, expressed, represented, and coordinated among the diverse group of speakers, strengthening some meanings of the Desert Rock struggle, while weakening others. In Latour’s words: “To assemble is one thing; to represent to the eyes and ears of those assembled what is at stake is another” (Latour 2006, 18).

These representations and contestations are also part of the knowledge-practice work being done through this controversy, both by the movement opposing Desert Rock
and also by the Desert Rock advocates who mobilize a type of expertise (be it technoscience or indigenous knowledge) for different ends. As shown, both opponents and advocates of Desert Rock mobilize biomedical and environmental science as well as oral histories, Diné philosophy, and the experiential authority of everyday life. Importantly, none of these arenas of expertise are proprietary to a particular political position or subject position – elderly Diné grandmothers call upon intimate knowledge of the landscape as well as scientific knowledge of pollution effects to make their case. Similarly, environmental policy specialists from the region called upon their specialized knowledge of NEPA and regulatory constraints on the power plant, but also drew upon a cache of authority rooted in their experiences dwelling and raising children in the polluted Four Corners region. The knowledges in contest are hybrid, not purified.

Yet ultimately, all of these statements reveal the controversy over Desert Rock as a site of ethical positioning by inhabitants of the reservation and greater region; that is, the testimonials are not merely expository, but are interpretive speech acts – persuading the immediate public at each hearing as well as the broader publics reached by the media that at stake in the issue at hand is one thing, and not another. The movement against Desert Rock took this ethical arena as an opportunity to shift the terms of the debate away from the project proponents’ generic emphasis on jobs, economic development, and other quantitative measures of growth, re-casting these same issues in terms of livelihoods, lifeways, and the specifics of what the mine expansion would mean for particular families who would lose their home and grazing lands. In doing so, they redefined what is at stake in the controversy, emphasizing the more distant future over more immediate (and yet still dubious) monetary gains. All of the speakers’ statements were informed by specific,
ethical visions of how the world ought to be, hitched to particular technological possibilities (the idea of another coal power plant versus the idea of wind and solar). For one speaker, at stake in this debate is precisely “a future with life in it” versus, as other speakers insinuate, a lifeless, dystopic future, or a future of death, “ruin” and “detriment.” In this way, the work done by contesting expertise is to use the space produced by the emergent object of Desert Rock to discursively construct futures laden with meaning. Such projective, meaning-making work relies upon the imagination of all those involved, evoking desire for a good life – yet with the material conditions of that good life still up for debate.

This debate over ethics, the future, and the stakes of the present was perhaps most stark in the contested interpretations of “balance” that played out during the hearings. Translated as “balance” or “beauty” in English, the Diné concept of hózhóón is a considered a core tenet of Diné pedagogy and teachings, part of the broader, foundational concept or “natural law” of S’aah Naghai Bikeh Hozhoon, or “SNBH” as it is referred to in shorthand. Diné intellectual and educator Avery Denny translates SNBH as “old age, journey or walking, prosperous life, and beauty/balance,” summarizing it as the core “philosophy of life.” Like clans, SNBH is widely revered, treated as essential, authoritative, and primordial. However, there is widespread disagreement over precisely what SNBH means and how to translate it into English, further complicating how to enact it into contemporary tribal policy. Though its authoritative role goes largely unquestioned, its efficacy and compatibility with modern institutions is constantly up for debate. Some express the recent codification of SNBH into the Navajo Nation Code as a

transgression against the very “spirit of the law,” pointing out that legal codification defiles the inherent polyvocality, dynamism, sacred dimensions, and practice-based nature of this code.\footnote{266}

There is a vast body of thinking on SNBH by Diné and non-Diné scholars, which is too extensive for discussion here, but the practical implications for SNBH in the “modern world” are of utmost concern to Diné activists and policymakers, taking center stage during the Desert Rock public hearings. One series of statements and counter-statements exemplifies this clash over meanings. At the Burnham chapterhouse meeting on July 24, Chris Clark-Deschene, the young, in-house attorney for the Diné Power Authority argued passionately for the “balance” and “sovereignty” that this “clean coal” power plant would guarantee for the Navajo Nation, offering much-needed jobs and industry with minimal environmental impact. This was the kind of “balance” implied in Diné Fundamental Law, he argued, as established by the Diné Holy People, and if any damage was incurred by the project, it could be mitigated through the appropriate ceremonial offerings. At a subsequent hearing, Dáilan Long, another young Diné leader responded, openly challenging the attorney’s interpretations of Diné Fundamental Law and balance, arguing that Diné philosophy intended balance with the earth to mean not engaging in extractive industry, and no act or ceremony of atonement could rectify the degree of damage and instability that would be wrought by a new power plant.

This clash over interpretations of balance and SNBH were themes throughout the hearings, and elaborated in the *Navajo Times* in op-ed pieces in the months during and

\footnote{266 Anthropologist Klara Kelley, personal communication, July 2007. This is also the position taken by the researchers at the Diné Policy Institute and the problematic informing much of their ongoing research work.}
following the summer 2007 hearings. As one tribal member opined in August regarding 
Desert Rock: “It is a violation of Title I of Diné (Navajo) natural law, which explicitly 
prohibits the destruction and desecration of our land.”267 In fact, Clark-Deschene wrote 
an equally impassioned op-ed in October, entitled, “Sovereignty means we make our own 
decisions,”268 which was answered in the following weeks by a flurry of responses – 
some supporting Clark-Deschene, but the majority opposing – including a lengthy 
response a week later by Long269, continuing their dialogic counter-arguments begun 
during the live hearings. This weekly discussion carried on throughout the fall, winter, 
and into the next year, sparking other op-ed pieces for and against Desert Rock, 
exemplifying the circulation of this debate. The contest of meanings moving from the live 
performance at the public hearings to the print genre of the weekly paper, the most 
widely read news source on the reservation. Thus, while the hearings were a site for 
galvanizing the movement and shifting the terms and moral weight of the debate toward 
stakes other than the dominant discourse of jobs and economic development, the public 
dialogue did not end with the hearings; the hearings were, in fact, igniters of broader 
discussions over the meanings and significance of coal power technology for the Nation.

E. Affective Genre of Energy Politics

Notable in this brief sampling of public hearing statements is most participants’ lack – or refusal – to speak of the issue in purely technical terms. While all of the hearings include statements by attorneys, scientists, and policy experts who addressed, very specifically, the technical and regulatory shortcomings of the Draft EIS – criticizing the shortcomings of the “range of alternatives” discussed, the “disproportionate impacts” on local residents, or the water source for the coal processing – the majority of the speakers at all ten hearings spoke at a different register. Similarly, some Desert Rock advocates spoke of the “clean coal technology” purported by the plant’s developers, yet they, too, spoke more at the register of cultural politics – expressing a desire for modern infrastructure, education, and employment. These differing registers of speech, however, cannot be understood as strictly “emotional” versus “technical”, although this was the dichotomy warned against by many of the anti-Desert Rock activists. Quite the contrary: the technical statements were in fact deeply affective in their delivery, while the more narrative, personal testimonials also drew upon a reservoir of technical knowledge – though perhaps technical knowledge of a different order. Instead of drawing only upon technoscientific knowledge and expertise, these statements of a different register drew upon extensive experiential, embodied knowledge of the landscape, its ecology, economy, and essential everyday practices; that is, a kind of “technical knowledge” of the land that is not opposed to, but exceeds the boundaries of Western scientific knowledge.

Invigorating the hearings and most speakers’ testimonials is an element of affect, which we might understand as the intensity experienced through embodied, “ethical know-how” (to return to Varela’s terms). Desert Rock is made visible through an array of spectacles (like the public hearings, marches on Window Rock, and Burnham resistance
camp) as well as artifacts, as will be elaborated in the next chapter, which generate an affective arena of energy politics. This production of affect, through events and objects, contributes to a language beyond policy through which to talk about these difficult issues. The affective aspect of energy politics animates the various modes of expertise and meanings being contested in these public hearing encounters, rendering the purified, technical accounts of these dilemmas (offered in the language of energy economics, environmental policy, chemical science, and engineering), only one dimension of a more complex and nuanced story. The hearings, as a series, created a space in which the mobilization of affect became a method for shifting the moral weight of the issue and garnering recognition; that is, affective speech – coupled with specific expertise (life history, policy and law, philosophy, and science) – was a practice for being heard and being seen, on the record, contributing to a new discourse of what is at stake in the placement of a coal plant in the Burnham community.

The technical shortcomings of the Draft EIS were considerable, however, and were similarly addressed with a degree of affect, securing specific truth-claims as foundational to the opposition’s position. As stated in his 35-page comment letter to the BIA, Mike Eisenfeld of the San Juan Citizens Alliance (working closely with Diné CARE) summarized the failures of the Draft EIS as follows:

“The Draft EIS is severely deficient and fails to meet the basic requirements of NEPA due to a narrow purpose and need, the failure of the BIA to provide a reasonable range of Alternatives, and numerous incomplete studies and/or studies never conducted/evaluated (including groundwater and hydrologic characterization, aquifer testing and analysis, public health, coal sampling, particulate matter calculations, mercury deposition analysis, CCW’s [coal combustion waste], and environmental justice). The Draft EIS fails to analyze the significant impacts of DREF [Desert Rock Energy Facility] emissions of 12.7 million tons per year of CO2 and is therefore fatally flawed (CO2 impact analysis
is certainly required under NEPA, regardless of legal interpretations concerning EPA oversight of CO2). The third party use of URS Corporation to prepare the Desert Rock Draft EIS on behalf of BIA has resulted in a predetermined conclusion approving DREF per the faulty purpose and need for the project …”.

Central to Eisenfeld’s and others’ critique of the Draft EIS is the faulty logic of a “predetermined conclusion” in what is supposed to be a well-researched presentation of a range of equally viable technological alternatives. As presented, the 1500 MW coal plant (Alternative B in the Draft EIS) is presented as the only reasonable response to the stated purpose and need of “developing Navajo coal resources.” As Eisenfeld notes, this “narrow purpose and need” thus forecloses any possibility of thinking more creatively or expansively about the larger issues at stake – such as economic development and tribal self-determination, or, to echo Hank Dixon’s testimonial, “the very philosophy that makes us Navajo.” In other words, by beginning with coal itself as the driving actor in the problem, rather than beginning with broader questions of the economic future of the Navajo Nation, the Draft EIS prefigures its findings, rendering “No Action” (Alternative A in Draft EIS) or a smaller coal power plant (Alternative C in the Draft EIS) nonsensical. Finally, in this logic of coal as the driving actor for development, wind and solar power cannot even be considered as viable alternatives, although they are mentioned as possible sources of electrical power elsewhere in the Draft EIS.

Yet, in a departure from this technical analysis, the affective power of the issue compelled most speakers to tell personal stories about living in the region, inhabiting the

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particular landscape, pursuing livelihoods, and living in clan-based communities, despite repeated warnings by agency experts to speakers to “stick to the text” and to the technoscientific aspects of the document. Across the ten days of hearings and hundreds of speakers, these practices of meaning-making worked in concert to stabilize a narrative of Diné identity that conferred authority upon the speakers, even at the same time that their particular utterances could be disregarded by agents of the Bureau of Indian Affairs (BIA). In fact, in the back of the room at one of the hearings, speaking almost inaudibly, one employee of the Navajo Nation’s EPA office privately advised one of the activists to tell the anti-Desert Rock supporters to be very specific and “un-emotional” in their comments, tying criticisms to specific page citations in the Draft EIS. Otherwise, he warned, the BIA may deem speakers’ comments as emotional and therefore officially “unresponsive,” thus allowing the BIA to ignore or “toss the comments aside” in the final consideration.271

However, exhibited again and again, the skill of “interpretive speaking” (and not detached reflection or overly technical language) animated these public encounters, advancing a sense of a collective will throughout the course of the hearings. It is useful here to understand clearly what this term indicates:

“Interpretive speaking consists in (1) articulating an experience that does not fit comfortably with the normal, commonsense descriptions of life in the polity, (2) uncovering the grounds of this unusual experience … and then (3) offering some description of the relation of these marginal practices to the dominant practices … interpretive speaking forces people to (1) remain true to the concrete experiences of their subworlds, (2) acknowledge and respect the different experiences in other subworlds, and (3) seek opportunities for cross-appropriating practices from other subworlds. In other words, interpretive speaking emphasizes expertise, recognition of difference, and collaboration” (Spinosa, Flores, and Dreyfus 1997, 99).

Articulating their own experiences in relation to dominant practices, both anti-Desert Rock and pro-Desert Rock speakers contributed to a notion of Diné identity premised upon a subworld of difference – even when the particular values of that subworld were contested (i.e., the value of nice homes and urban infrastructure versus the value to herd sheep and haul water). Notably, even the non-Diné speakers contributed to this notion of Diné difference. Furthermore, the collaborations across difference that emerged during these hearings were not based on ethnic affinities, but rather on the desire to cross-appropriate the expertise of others in the room. In effect, a situated counter-narrative to the generic techno-science of the debate about coal power technology formed through many of these testimonies. While mercury, carbon dioxide, water usage, air quality, employment estimates, income projections, and carbon sequestration possibilities remained important, substantive components of many of the speakers’ statements, the ways in which these techno-scientific issues were rendered and performed were highly affective and intimate, bleeding beyond technoscience and environmental policy and into other arenas of knowledge with competing authority, including: (a) knowledge of the landscape and rural livelihoods; (b) knowledge of Diné creation stories and Navajo philosophy; and (c) historical knowledge of the colonial condition of extractive industry and its negative effects on Diné bodies, lands and communities. The experts in these three arenas of knowledge were everyday tribal members (especially elderly women, like Alice Gilmore), many of whom grew up herding sheep in the greater Burnham area or in other locales on the reservation and have emerged at the forefront of the grassroots resistance to Desert Rock.
Such epistemologies are distinct in that they reflect an expertise informed by deep connections to place and everyday experience – again, what we might consider “practical expertise” – and they are part of a broader public dialogue on the future through a modality of “interpretive speaking” (Spinosa et al 1997). These epistemologies reflect a politics informed by historical difference and a sense of place-based heritage – as seen in the previous chapter through Alice Gilmore’s reflections. However, this epistemic difference is also informed by interpenetrations of other kinds knowledges and expertise, especially knowledge of public health and environmental effects of air and water-borne contamination, as evidenced throughout the hearings. Speakers were able to mobilize these hybrid knowledges, while still speaking from a place of historical difference, cognizant of the broader, uneven relations of power at work in the triad of federal-corporate-tribal development projects. When such politics are situated, even partially, within different ways of knowing and being in the world, as is the case with a great majority of the elderly resisters to Desert Rock, these politics often escape the confined procedures of democratic participation built into the NEPA and Draft EIS process.

Confirming this problem while reflecting on the highly structured, problematic model of conflict resolution embedded in the hearings, one of the hearing facilitators expressed earnest frustration over the regulation and management of “participation” dictated by the process, noting that the EIS process as currently structured cannot meaningfully integrate these other ways of knowing and being:

“It wasn’t very difficult in terms of actually facilitating – the meetings as you know were long and exhausting and emotionally and psychically draining, being around all that pleading by Navajo people about why this [power plant] is such a bad idea. But the most challenging part was honestly trying to get people to wrap up their comments. How do you tell a Navajo elder with an oral tradition you
have three minutes? That was one of the hardest things to try to manage … At 80% of the meetings I was thinking, god, most of this [emotional testimony] isn’t going to make it into the final EIS. Speaking of process, in a more ideal scenario there would be a place for the anecdotal, the testimonial, something not based on this scientific model. It’s like this clashing of cultures, even though it’s the BIA – the BIA is completely clueless … There needs to be a whole other parallel process that takes a different kind of input, especially when dealing with a culture so different from ours. How do you find a way to take that input and make it meaningful in evaluating your decision? The fact that the EIS wasn’t in Navajo – so what if you at least took the Draft EIS Summary and audio recorded it? It’s like it never dawned on anybody.”

Despite its failures, however, the series of ten hearings was a highly productive event, reinvigorating a sense of democratic participation by tribal members and off-reservation neighbors and in effect, galvanizing the movement to stop Desert Rock. This productivity occurred both within and beyond the official confines of the Draft EIS testimonials. In fact, much of the politics of this debate involved what occurred at the edges or outsides of the formal hearings procedure – conversations in the parking lot, in long car rides between meetings, and over the water fountain, in the bathrooms, hallways, and in restaurants following the hearings. New alliances were built after speakers made their positions known and particularly charismatic figures emerged as leaders or as pariahs to be watched. That is, the stage of the hearings became a site where alliances were made public as individuals spoke either for or against the power plant, alternately alienating and enlisting other members of their own community. Thus, while the formal hearings themselves were a crucial event in the future-making and knowledge-practice of those invested in the outcome of the Desert Rock proposal, there were equally significant back- and off-stage encounters among and between Desert Rock supporters and resisters,

272 Interview with Tami Graham, Mancos, CO, November 28, 2007.
which gave the two-week period of hearings a particular, historical significance for those involved. In sum, the ten Draft EIS hearings demonstrated how differing epistemologies are re-figured vis-à-vis technologies as well as how democratic participation while now a standardized, mandatory component of development projects (in this case, a federal mandate) both fails in delivering true participation\textsuperscript{273} and, at the same time, achieves an unintended consequence: the proliferation of different registers of knowledge in public debates over science and technology and the possibility of assembling a concerned public to challenge the future being posited by the proposed development project. In other words, galvanizing a movement and shifting the terms of the debate toward what movement actors deem are the deeper issues at stake.

II. The “Alternatives Report”: Incorporating Epistemologies

A. The Report’s Relational and Spatial Foundations

Following the performative and spatially dispersed ten public hearings, a subsequent textual strategy for achieving recognition and situating knowledge emerged, championed by a core group of Desert Rock opponents. In this section, the report, “Energy and Economic Alternatives to the Desert Rock Energy Project,” and some of the work behind its collaborative creation, becomes the central “event” around which a sector of the movement organizes itself. This document exhibits a hybrid mode of expertise not yet seen before in the movement to change the energy policy for the Navajo Nation. Like the public hearings, this document is both a thinking technology and a technology of

\textsuperscript{273} See David Mosse (Mosse 2005) for more extensive discussions on the problem of “participation” in development projects and processes.
recognition, entering the maelstrom of the energy controversy to assert historically particular knowledge, aimed at transforming public opinion as well as governmental and private sector action on the question of appropriate energy technologies for the ecology, political position, infrastructural base, and geospatial location of the Navajo Nation. Like the public hearings, this document is an event of knowledge-practice and expertise in action; unlike the hearings, which were momentous yet ephemeral, the document is recoverable and knowable in its materiality. The emphasis here is on the self-initiated, self-organized process of knowledge production embodied in the document, its effects as an artifact of the movement against Desert Rock, and its work in constructing new meanings and possibilities for the alternative future of renewable energy on the reservation.

Concurrent with the public hearings that summer, organizers with Diné CARE were busy conducting research in the Burnham region to help build their case against Desert Rock. Dáilan and his sister Erma drove the unmarked, deeply rutted dirt roads, crossing dry arroyos and passing the open pits of the Navajo Mine, going from door to door in their community, visiting clan relatives and extended family, interviewing residents about their feelings on the proposed power plant. Their research gathered stories and material later integrated into the “Energy and Economic Alternatives to the Desert Rock Energy Project” (hereafter called the “Alternatives Report”), a collaborative effort between Diné CARE and Ecos Consulting, a small energy research and product-development firm based in Durango, Colorado. Dáilan and Erma’s grassroots research built upon many months of interviews conducted by their grandmother, Sarah Jane White, formerly an elected official with the Sanostee Chapter and one of the earliest
community organizers in the movement to stop Desert Rock. As part of the ethnographic research needed for the Alternatives Report, Sarah conducted extensive, sustained work, conducting “stakeholder interviews” primarily in the Navajo language with 39 individuals living in the impacted area and 12 others holding positions in tribal and regional government, energy industry, and the media. The result of her work (which included translation from Navajo to English on most of the interviews) became part of the Alternatives Report, providing verbatim transcriptions of the opinions and experiences of a wide sample of the community (Diné CARE 2008, Appendix A). Such activist research was conducted with the final document in mind, an object or tool, in Latour’s words, of “proof-giving equipment” (Latour 2005, 21) that would argue for the investment in and development of renewable energy technologies on the Navajo reservation as alternatives to Desert Rock.

Released to the public on January 12, 2008, following nearly a year of research and negotiation, the Alternatives Report is an example of another kind of technology of expertise, indexing the aspirations of both regional energy engineers and Diné activists in literally remaking the landscapes of power on the Navajo Nation. Incorporating Diné oral histories and philosophy with cutting-edge renewable energy expertise, the Alternatives Report became an artifact of hybrid knowledge advocating for new infrastructures and new cultural associations between technology and tradition. However, these forms of expertise required much negotiation prior to the document’s final release; misunderstandings of the Navajo landscape’s history, alternate readings of cosmology, and the hard work of grassroots ethnography were required to bring this project to fruition. In what follows, I discuss the arduous work required to bring the Alternatives
Report into its final form, the blending of epistemologies in order to produce this hybrid genre, and the significance of the final document in objectifying a particular vision of the future integrating technical expertise, grassroots ethnographic research, and Diné Fundamental Law, cosmology and customary knowledge. The Alternatives Report, as a response to Desert Rock, constitutes both an artifact and a process of knowledge production, furthering the public dialogue on the technological and ethical aspects of energy development for the Navajo Nation.

B. Energy Activists and Energy Scientists: Building a Collaborative Report

“We got involved in this Desert Rock project because we have the expertise of being able to say how else a customer of a power plant could provide the same services without having to build another coal power plant. We are not value-free scientists in the sense that we are doing pure research. We are a mission-driven organization working to reestablish the balance between people and the natural systems on which our lives depend. So we work specifically on energy to reduce the need for coal fired power plants and nuclear generation stations and the technologies we think are unsustainable and irresponsible, and to provide alternatives to that.”

Paul Sheldon, Senior Manager of Policy and Research for Ecos Consulting, notes the energy science behind the Alternatives Report was already steeped in a politics of promoting alternative power sources to large utilities. Ecos’ business model is based on research and development of electronic products, which can then be marketed to customers to improve sustainability and energy efficiency. Son of a sociologist-anthropologist, Sheldon recalls writing letters as an eight-year old in the 1950’s, 274

protesting the Black Mesa Mine when it first opened on the Navajo Nation. Grandson of West Virginia coalmine owners, he narrates his professional background and “lifelong passion” as shaped around resisting coal power and searching for energy alternatives.

Brought on to research and write the technical side of what was originally conceived as a 35-page document and later grew to nearly 200 pages, Sheldon and his colleagues led Ecos in their first collaboration with a tribal organization and one of their few projects impacting their own local community. Diné CARE found their way to Ecos through their close partnership with San Juan Citizen’s Alliance, another Durango and Farmington based non-profit environmental organization. Once the collaboration between Diné CARE and Ecos was established, the Alternatives Report conceived and outlined, a long process of negotiation and co-authorship, collective research and design began.

As energy experts, Ecos researchers were called upon to do the economic and technical analysis of integrating renewables with energy efficiency, all the while keeping a close eye on the bottom line and technological feasibility. Meanwhile, Diné CARE grassroots researchers worked on collecting the life histories and personal testimonials of Burnham residents, as well as the integrating Diné oral histories and ethical principles from Diné Fundamental Law into the technoscience of the Alternatives Report. However, integrating these modes of knowing, researching, and situating the proposed technologies were not always smooth or self-evident, especially when the Ecos researchers were unaware of specific histories of energy technologies and natural resource issues on the Navajo Nation. Diné CARE members brought their own postcolonial critique to the table, informing their analysis of which technologies would be the best alternatives to the long history of extractive industries on the Nation. Initially, the Ecos scientists mapped out a
plan of action ignorant of these energy histories on tribal land. For instance, Ecos initially proposed the use of biomass as one solution among a portfolio of diffused renewable energy alternatives to Desert Rock. Assuming biomass to be apolitical – a technical solution to a technical problem – Sheldon and others unknowingly hit a raw nerve with the Diné CARE activists. Sheldon explained Ecos’ point of view:

“We had originally conceived of biomass as being a component of the mix, because we know there are beetle problems, dead standing trees in Utah and Arizona and New Mexico that are not good for the forest and there will be some salvage logging as a result of that. We thought it was logical to include that. It was 2-3% of the original mix. That was when – and I think you were there at that meeting – when Lori, Sarah, and Dáilan all came together to say, Doodá (No)! That’s not going in this report. One of our founders was murdered trying to stop logging in the Chuska mountains. And actually it took three rounds, because I first tried to talk them into it. They, being polite, listened, but then they all came up en masse and said this is not what we want.”

Ecos ran into a similar resistance to natural gas:

“No, we really want any fossil fuels in here at all? We are trying to show that we are doing something different. We had to make the case that the CSP [concentrated solar power] plant is a natural gas plant with collectors and reflectors on the front of it. It’s a different heat source, but essentially the mechanism for producing electricity is the same. You boil water to make steam and turn the turbines. To put natural gas with it is to make the solar power more valuable, and to generate more when your client wants it. But you don’t have to burn much natural gas at those facilities … I think in our mix …it is 16%, the second lowest share of everything in our mix. Part of the reason we relied on it is that natural gas is abundant in this part of the world and the people under whose land it sits don’t get revenue from it now, because the value is added by the power plants in California or the companies who are extracting and shipping it through a pipeline. If they made use of it directly on the reservation, more of the economic benefits would stay there. It’s a combo of economic development, making the solar resource more useful and valuable, and

275 Ibid.
In both cases, Ecos found their expertise – in energy efficient technologies and the economics of renewables – challenged by Diné activists who had different historical experiences with these specific technologies. Specifically, as stated in the Introduction to the Report, Diné activists saw the Report as a response to “the historical trauma of energy development” (Diné CARE 2008, 3). What ensued was a debate over “appropriate” technologies – technologies that were not only feasible, but were culturally and historically particular to the ongoing movement in which Diné CARE (and others) have been deeply invested, proving that that which is technically “renewable” or “alternative” to coal power (e.g., biomass) from another historical perspective and point of difference might be seen as colluding with the coloniality of power these activists were working against. In this sense, the ability to define the appropriate and the ethical was at the core of the tensions that existed in this process of negotiating the final product.

Another point of friction in the process of producing the final Alternatives Report was the material integrity of the document itself. In the interest of time and the absence of additional funding, Ecos released a draft version that Diné CARE and the Diné Policy Institute (brought in to offer their review of the document) felt had too many formatting mistakes and inconsistencies to be forwarded to the Navajo Nation Tribal Council. In question were not concentrated solar power, wind energy, and the economics of a new energy development plan for the Nation, but inconsistencies in fonts, footnotes, and overall style. What the Ecos engineers and researchers felt to be minor errors, the

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276 Interview with Chris Calwell, Ecos Consulting, Durango, CO, June 23, 2008.
activists took as major affronts to the professionalism and perfection required; they expressed serious concern, knowing their case would be more easily dismissed by Navajo Nation Council critics if the document itself was not polished and of publication quality. Once again – similar to the dispute over biomass and natural gas – the Diné activists saw the Report in a situated, historical context in which it would be used as a means of persuasion with specific individuals in positions of power. Such a perspective mandated a finished product, not first-draft material. Many months later, after considerable editing and elaboration, the Alternatives Report was finally complete – a collective project of eight staff members of Ecos Consulting; five graduate interns from the Presidio School of Management; four community organizers with Diné CARE; and eight other consultants, including policy specialists, financiers, energy engineers, energy researchers, marketing agents, and funders. The network of people, data, expertise, memory, energy technologies, and mathematical calculations behind the Alternatives Report consolidated into a final, distributable product.

C. Blending Epistemologies: Technology, Ethnography, Cosmology

The Alternatives Report became a hybrid and collaborative document, blending epistemologies that at first seemed incongruous, creating a proposal for a portfolio of renewable power in a manner that integrated the science, economics and current policies of energy technology; Diné cosmology and creation stories; and grassroots ethnography conducted by residents of the impacted area. Evolving from what was initially conceived as a short, technical report (produced solely by Ecos Consulting) into a longer, more complex treatise against Desert Rock and for renewable energy (produced collectively by
Ecos and Diné CARE activists), the document argues that renewable energy technologies would not only solve the immediate economic and energy needs of the Navajo Nation, but would advance customary values and practices, ensuring a particular ethics of life and atonement. Such an epistemic mélange makes the Alternatives Report unique in the energy justice movement. A short discussion of each of its components – the technical (science, economics, policy), the cosmological, and the ethnographic – illuminates the range of knowledge-practices and variable expertise at work in this document, as well as the particular envisioning of Navajo identities and futures, vis-à-vis energy development possibilities.

(1) Technology, Economics and Policy

Technically, the Alternatives Report makes two moves. First, it deconstructs the promises made in the Draft EIS on Desert Rock along three lines: the science of coal fired power generation, the economics of relying upon Navajo coal as the main driver of economic development for the Nation, and the regional and federal energy policies currently reshaping how energy development is funded and pursued. Second, the Alternatives Report makes a normative move – after deconstructing the science, economics, and policy factors making Desert Rock a poor decision for the Nation, it counters that critique with “an illustrative scenario” proposing a portfolio of renewable energy technologies for the Nation (concentrated solar power, wind energy, energy efficiency, and natural gas) as the way forward. Using a comparative methodology, the Alternatives Report puts coal-fired power (especially the pulverized, super critical boiler technology called for by Desert Rock) side by side with various renewable sources and
analyzes these options in terms of health impacts (especially air emissions), impacts on water, job creation, tribal revenue, and sovereignty. The perspective of the document is oriented toward the future; that is, it is a series of projections and informed assessments of what could be, were Desert Rock to be built versus alternative technologies. For instance, the cost of carbon as implicated in “carbon taxes” is a core part of the argument, drawing upon a global cache of estimates of the price to pollute the atmosphere and who will bear responsibility for such taxation.

In its first, deconstructive move, the Alternatives Report asserts its argument in the language of science and policy, criticizing the Draft EIS on Desert Rock for being “neither an honest scientific inquiry in the spirit of the National Environmental Policy Act (NEPA) nor an ‘alternatives analysis’ worth its name – it is an after-the-fact justification of a pre-determined course of action” (Diné CARE 2008, 6). That is, the use of Navajo coal. The goal of the Alternatives Report is contained in its very name – to propose “alternatives” to coal-fired power as possible economic development pursuits for the Navajo Nation, rather than departing from an implicit assumption that using Navajo coal resources is the only way into the future. In essence, the authors seek to re-frame the question implicit in the Draft EIS and go beyond its limited Alternatives A, B and C. That is, while the Draft EIS contained three “Alternatives” (one was Desert Rock, one was a “No Action” alternative required by law, and the third was a coal facility with one-half Desert Rock’s generating capacity) none of these named “alternatives” proposed an alternative to coal.

277 The Alternatives Report cites the European Union Emissions Trading Scheme, the Chicago Climate Exchange, the New South Wales Greenhouse Gas Abatement Scheme, and the New Mexico PRC for estimated costs in dollars per ton for carbon emissions (Diné CARE 2008, 31).
Thus, rather than assuming that Navajo coal resources are the only pathway to prosperity, security and growth, the authors of the Alternatives Report reframe the question, asking, “Which energy resources should the Navajo Nation develop to maximize economic opportunity for its people?” and “What plans and scenarios for economic development would provide the most jobs and economic multipliers with the least severe negative impacts?” (Diné CARE 2008, 6). They are, in effect, widening the horizon of the question, signaling a more open approach to imagining how the future might be built than is possible through the myopic “purpose and need” as stated in the Draft EIS.

Citing the desire for air conditioning, commercial and industrial enterprises and increasing population in urban centers such as Phoenix and Las Vegas as the market driving the Desert Rock proposal and the other existing and proposed coal plants in the Southwestern states\(^{278}\), the authors build a case against Desert Rock as an export-based model of economic development. This results, they argue, in an instance of environmental injustice, wherein area residents (predominantly Diné) already negatively impacted by two existing coal plants will further bear the brunt of a third coal plant, while urban dwellers enjoy the benefits of the most heavily polluting fossil fuel without suffering any of its environmental, health, and financial consequences. Environmental justice is, they argue, not just about “minimizing harm” (as claimed in the Draft EIS), but

\(^{278}\) The Alternatives Report cites a total of 19 new coal fired power plants totaling 13,017 MW of power currently proposed for Arizona, Colorado, Nevada, New Mexico and Utah, which in terms of carbon dioxide emissions, would amount to the equivalent of putting over 16 million new cars on the road (Diné CARE 2008, 10). At the time of this writing, some of these plants have already been cancelled (such as the Ely Energy Center and White Pine plants, both slated for Nevada) due to regional political pressures such as the Western Governor’s Association and the waning financial security of coal investments. Anti-coal activists and organizations in the region expect more closures of proposed power plants in the coming years.
about “maximizing benefit” (p. 65). Similarly, while the Draft EIS claims that Desert Rock promotes “fuel diversity” by “reducing the need for new natural gas resources” in the region, the Alternatives Report authors demonstrate how this continued reliance on coal – already the dominant fuel source in the region – only undercuts fuel diversity (p. 64). Again, the authors target the inherently faulty logic of the Draft EIS’s framework: if fossil fuels are considered to be the only game in town, then “fuel diversity” is constrained by those pre-existing possibilities. But if, however, the horizon of possibility is widened to include low-carbon or no-carbon fuels, then “diversity” can contain a much broader array of actors. In all of these cases, the authors deploy their technical, scientific, and policy expertise to expose the nearsighted vision of Desert Rock, arguing instead for a broader, more imaginative horizon of “development” alternatives.

In its second, normative move, the Alternatives Report lays out a proposal for a portfolio of alternative energy development for the Navajo Nation that would not only provide electricity at a lower cost per kilowatt-hour than proposed by Desert Rock, but would produce as much annual electricity as Desert Rock, yet from a variety of non-coal resources. Their analysis further demonstrates how such a renewable energy scenario could exceed Desert Rock in providing jobs, and reliable income; could localize and decentralize power distribution in order to service Diné families as well as send power along the grid to urban centers; and could position the Nation in a leadership role in the burgeoning industry – thus putting a spin on the technologies of sovereignty. The authors propose a combination of wind and solar power, energy efficiency measures, and limited natural gas resources as the best viable alternative to Desert Rock. They detail how at least 5% of Navajo territory is considered excellent for solar development, which means
the possibility of 48,383 MW of solar generation (p. 56). Their vision is to produce concentrating solar power (CSP) technology, which involves systems of parabolic troughs, solar dishes and engines, or solar power towers. These CSP technologies work on mechanisms of heat transfer, wherein sunlight is used to heat water into steam, which in turn powers a turbine and then creates electricity. All are grid-connected technologies (as opposed to off-grid, residential or commercial solar photovoltaic systems, which also exist across the reservation) with output capabilities rivaling Desert Rock. In addition to solar power, New Mexico ranks 12th in the U.S. for potential wind power generation with Arizona close behind (p. 99-100). It is of course not enough to have high-class (Class 3-7) wind resources and build a turbine – the true viability depends on access to transmission lines and the electrical grid, the largest machine in the U.S. The authors argue that although it was originally intended as a connected action with Desert Rock, the Navajo Transmission Project (NTP) could be used for transmission of wind and solar power from rural sites of production to regional sub-stations and then onto urban centers. Anemometers (measuring devices for wind speed and quality) are already installed around the Western portion of the reservation, collecting data for potential wind farm development. Finally, in a series of comparative tables, the authors show the capacity of megawatt output, cost per kilowatt-hour to run, the water usage, carbon costs, and jobs

279 The Alternatives Report draws significantly on research done and underway at Northern Arizona University (NAU) on wind power generation on the Navajo Nation. For more detail, see NAU’s office of Sustainable Energy Solutions’ “Arizona Wind Energy Assessment,” April 2007.
created between Desert Rock and the wind/CSP/efficiency/natural gas alternatives they are prescribing.\textsuperscript{280}

The Report’s authors also explore the science and politics of how we imagine the intangible. For instance, it asks how air emissions and particulate matter – and their resulting effects on the bodies, lands, and waters of Diné people and their neighbors – might be imagined as political actors in this controversy. This has been one of the key contentions fueling the discussion of Navajo tribal sovereignty and independence, a central part of the controversy (as discussed in Chapter V). The Navajo Nation government has pressed forward with plans to build Desert Rock, despite New Mexico Governor Bill Richardson’s climate action plan to achieve significant reductions in emissions by 2025 and the “renewable portfolio standards (RPS)” mandates set by New Mexico and other regional states. Increasingly, regional utilities are being offered incentives to purchase renewable power, which could bring business to the Navajo Nation if solar and wind power were available for sale, especially in Arizona and Nevada, the target markets for the exported energy (p. 78, 88). Because of its carbon dioxide emissions, Desert Rock would be unable to comply with these mandates for the future. This opens the way to a prickly debate over the political nature of particulate matter (air emissions) and their ramifications for the ongoing struggles of tribal self-determination. The Alternatives Report authors argue:

“Even if [Desert Rock’s] backers claim that Navajo Nation sovereignty makes

\textsuperscript{280} Notably, the “alternative technologies” proposed are actually hybrids, in many ways. Concentrated solar power fields use a fossil fuel fired capability (such as natural gas) to supplement solar output in times of low solar energy.
those emissions separate from New Mexico’s totals, they would still add to regional and national totals and could logically be counted in estimates for the states that ultimately purchase the power” (p. 37).

Where or how are carbon dioxide emissions counted (and ultimately, penalized), if they emanate from the Navajo Nation, within the state of New Mexico? In other words, what techniques of accounting for the intangible would enable or disable sovereignty, allocating demerits in a manner that conforms to geopolitical borders – the very spatial constructions that air and wind do not obey? This link between energy and sovereignty is underscored elsewhere in the Report as well, as the authors argue that a new coal-fired power plant would in fact compromise Navajo sovereignty, despite the project’s proponents claims otherwise, while wind and solar technologies will advance sovereignty. Citing the Diné Natural Resource Protection Act, the authors link energy development to Diné Natural or Fundamental Law, widely accepted as the basis for understanding Diné sovereignty:

“The Navajo Nation Council finds that the wise and sustainable use of the natural resources in Navajo Indian Country traditionally has been, and remains, a matter of paramount governmental interest of the Navajo Nation and a fundamental exercise of Navajo Tribal sovereignty.”

The pivotal concept here, of course, is how sovereignty is understood and exercised vis-à-vis the interpretation of “wise and sustainable use,” resonating with the diverse deployments of sovereignty Desert Rock is producing, discussed in Chapter IV.

281 Navajo Nation Code, 18 Section 1301, pg. 797 (Diné CARE 2008, 70).
The production of the Alternatives Report itself is an example of hybrid knowledge production, involving a high degree of technical, cultural, and cosmological expertise. The next section describes the activist research component of this document, following the community-based research of a Burnham resident and organizer, illuminating the second thread of epistemology at work in the Report: local knowledge and grassroots ethnography before culminating in the cosmological knowledge mobilized through the document, as well.

(2) Grassroots Ethnography

Sitting at a vintage Formica table in her kitchen, the central space of the three-room, cinder block house just a few miles south of the proposed Desert Rock site, Sarah told me how Ecos Consulting originally wanted her to complete all of the Stakeholder Interviews for the Alternatives Report in two weeks. Head thrown back, she laughed at the memory – the absurdity of having such limited time to conduct home interviews with a few dozen Navajo families living scattered across the region.

“An interview takes a long time. You can only interview one or two homes in one day. As much as you rush it, you can’t really rush the people. Navajos are very difficult people to work with, especially when it comes to interviews. They are very suspicious. You have to get to know them, you have to make friends with them, you have to practically become their family for them to open up to tell you something you want to get from them … In 2 weeks I hadn’t even gone to 15 people yet – barely even gone to 7 people. I said this isn’t working. It takes time. So I brought [Paul Sheldon] out here to see for himself. I said, I want you to see where I go. This isn’t like a neighborhood where you go door to door. There’s a home here and there and 15 or 20 miles in between. So you come with me.”

Following this trip to “the field” with Sarah, Paul finally came to see the importance of Sarah’s grassroots ethnography and the limits to his own expertise. Hiring Sarah “to get out on the ground and find out what people really want, and how can we present that to the tribal council in a way that will be useful for them, and won’t just be numbers” resulted in some of the most convincing material included in the final document: ethnographic data, which despite their technical expertise, the Ecos researchers could not have produced. Paul describes his home visits with Sarah:

“We’d drive up, get out of the truck, walk up to the house and stand there and nothing would happen. We’d see people moving around inside and we could hear them talking, but nobody opens the door. And finally Sarah goes up and says something in Diné and they say something from inside the house and she says something and then they open the door and we go in and do the interview. I taped some of the interviews. Have no idea what was said other than what Sarah has translated. We’d get back to the truck later and she’d say, You know what was going on there, right? I’d say no. And she’d say, Well they were in the house and they were saying to each other, ‘It’s a white guy, should we open the door or not?’ That interaction really underscored that the interviews that Sarah got – she got interviews with people that would never have talked to me or Riley or Chris, but also the quality of the interviews she got, the concerns she was able to draw out, were completely different conversations than if I had gone down there and knocked on the doors and nobody would have opened the door. This really makes this Report stand out – we have a human and cultural component here that has a life and a context that we hope is going to make a difference.”

Paul’s recognition of the necessity of Sarah’s grassroots ethnographic research points to the central role of such “practical expertise” in knowledge production. This form of knowledge-practice – Sarah’s door-to-door solicitation of intimate interviews –

284 Ibid.
became one of the most important pieces of research data included in the final Alternatives Report, constituting 43 pages of translated transcriptions, overwhelmingly speaking against the proposed power plant. As one neighbor told Sarah, regarding her/his impending displacement by the mine expansion:

“I do not wish to move elsewhere. I live right here, this is my birth place, a place where my father raised us, a place where my father sang his blessing songs, and said his prayers for us and his grandchildren. His livelihood still remains, the places he herded sheep are still alive with memories. My life remains here and on the farm where I also live. The memories of my ancestors remain here, and the memories of where I grow [sic] up lingers everywhere. The medicine gathering place, the red clay spot where we used to get red clay to put on our faces to keep from getting sun burn, and it is also use [sic] in ceremonial purpose and all this is going to be gone.”

This emphasis on memory appears throughout the stakeholder interviews. Many people spoke of the “many memories on our land,” suggesting that a radical change to the landscape might also erode or erase those memories. At the same time, neighbors also suggested ways of creating new landscapes – ones seen as less damaging or threatening. Several stakeholders proposed alternatives to the mine expansion and the coal power plant that would increase tourism and green industry on the reservation, including movie theatres, sports complexes, Native arts markets, call centers, theme parks, hotels, local grocery stores, golf courses, and decentralized wind and solar power farms. Imagining the future of the Navajo Nation in terms of these objects instead of a

285 Stakeholder #1, Rancher/farmer (Diné CARE 2008, 111-112).


287 See Keith Basso for more extensive discussion on the deep connections of memory, place, and landscape, especially among Southwestern Native communities (Basso 1996).
new coal plant, stakeholders expressed a desire for change and development – not an outright rejection of development, as lingering stereotypes of indigenous peoples might suggest – but in this development future, the objects offer opportunities for local participation, recreation, heritage appreciation, and even energy consumption. Thus what Sarah found was not an anti-development stance, but a vision of the future that was not necessarily bound to continuing the history of fossil fuel extraction, which has been the primary industry in the region. Another neighbor, who works as a contract archaeologist, echoes this sense of historical economic exploitation by the industry:

“A wealthy Energy Company comes in and they rip us off. We should also guard ourselves from letting any outside big company people borrow millions of dollars that was supposed to be for our children’s education and our elders on low income. Money should go for power and water for their homes instead of wasting it on a big power company like Sithe. Sithe should be supporting DPA [Diné Power Authority] and not us [supporting it]. DPA is part of Navajo Nation but it was created to help the nation; not for them to rip us off.”

And another, who emphasizes the loss of life associated with the fossil fuel industry:

“I am very concerned about the new proposed power plant. We had Four Corners power plant for over forty years and look at the land. The land is dry, and the grass and other needed vegetation are gone. The plants die or they shrink and dry up a few days after it rains. The rain must not be good anymore with the smoke in the air. When you live out here and study everything on the land, it is easy to tell the difference between what is not right or what is changing … I know some people who worked for the power plant and the coal mine who died. Some of them died right after they retired from the plant, and some died while they were on the job from heart attacks and strokes. People who work for the mine and power plants do not live long. My brother and my son died working at Four

288 Stakeholder #13, Private Archaeologist (Diné CARE 2008, 126).
Corners power plant, and my husband died from working in a uranium mine.”

And another, living in Aneth, Utah, where some of the Nation’s first oil fields were explored, critiques the export-driven development model that Desert Rock would continue:

“This power will go to Nevada and Arizona. We should be the first to receive electricity connections to our homes, and instead of providing water for power plants, we should have our homes provided with water first before worrying about the power plants. What happened to serving the people first? … I ask, What has happened to the sovereignty of our nation? If we can go without all these luxuries here, then Phoenix and Las Vegas can go without them too. If we can survive without them, they can survive the same way … Navajo Nation should use the funds the received from oil and gas and coal power plants to invest in wind power and provide us with solar and wind power to light our homes.”

Sarah Jane White’s ethnographic work uncovered a range of concerns among area residents: health, rural livelihoods, tribal economy, relocation, sovereignty, and the desire for different models of development, departing from the historic reliance on fossil fuel extraction. Reflecting on her work as an activist and grassroots ethnographer, Sarah realizes the interconnectedness of all the technologies of the energy industry in her area and the importance of knowing the past in order to argue for a different kind of future.

“I did not realize, from the day I started working against Desert Rock, that I was working against all the mines and all the power plants here – I didn’t realize it until two years down the road … Because the people I visited are the people within the mining areas and I take their notes down, every time, where they live

289 Stakeholder #20, Burnham, N.M. (Diné CARE 2008, 133).

290 Stakeholder #24, Aneth, Utah (Diné CARE 2008, 137).
with no running water, with no electricity, and the strip mine [BHP Billiton’s Navajo Mine] is just right there. The shovel is hoeing away in their backyard and they have no power, no running water, and to me, that’s injustice. I took notes of that. And I interviewed them, on how they were being treated by the mine, by the company. I was just getting all these informations [sic] and the people that live around the Four Corners Power plant – the old power plant – and then at the same time I was telling people about the new proposed Desert Rock power plant. At the same time, I was working on history. I was visiting all these old homes of our ancestors, the old hogans, the old places where they used to live, and where their corrals were. I note every one of those down and me and Carlan [collaborating documentary photographer], we take photos of them, we make stories. I make contact with the grandkids and children of the people that have lived there 100 years ago. And they told me what were the names of these people that had lived there. So and so lived here, and here is a hogan – I’d draw a map – the corral, the house, the burial site of so and so. My notebooks are stacked this high.”

Sarah’s own identity transformation as an activist emerged as her work as a grassroots ethnographer took her into the places and memories embedded in the landscape and the stories of families, her neighbors and clan relations, who still call this desert region “home.” This element of identity formation in practice – especially when that practice is enacted in relation to a contentious issue – is what Holland and Lave call “history in person” (Holland 2001), a processual self-becoming through historic projects of identifying with enduring, ongoing struggles. The interviews Sarah conducted point to how many rural, especially elderly inhabitants of the reservation territory surrounding the Desert Rock site identify strongly with the land and see their futures entwined with the fate of specific places. Again, to draw upon Varela’s terms, such “ethical expertise” of local residents has become a source of power and authority for the Alternatives Report in having its perspective recognized, even by its adversaries who, although they might

challenge the technological argument of the Report would be unlikely to challenge the legitimacy of local stakeholders’ knowledge.

(3) Cosmology and Cosmopolitics

The cosmological argument woven throughout the Alternatives Report rests on two main sources of epistemic authority: the Diné Natural Resource Protection Act (DNRPA) and Diné Fundamental Law, which precedes the codified DNRPA. Because these logics of legitimation differ from the epistemic authority of technical prowess in science, energy technology and energy economics, the cosmological argument of the Alternatives Report is construed differently – in theory and style – than its corresponding technical argument. The cosmological argument follows a different epistemology and base of authoritative knowledge; excerpts of oral history replace comparative tables, while meditations on values of relationality, atonement, beauty, and balance replace discussions of regional and federal tax incentives. Yet at the same time, this cosmological epistemic authority does not stand against or reject the technical expertise of energy science, economics, and policy; rather, it flexibly incorporates this other way of knowing into an historical narrative about the identities, responsibilities, and possible future of the Navajo people. Alternating between Diné cosmology and Western science, the authors build a case for protection of natural resources by integrating seemingly disparate epistemologies. At the same time, they maintain clear ontological difference marking Diné ways of knowing and being, forming an authoritative bedrock for a radical turn in the Nation’s approach to energy development.
Specifically, the cosmological argument grounds its authority in the concepts of *hozhó* (beauty or balance), *alchi’i silá* (they face/relate to each other), *nahasdzáán dóó yádilhiil* (Mother Earth/Father Sky, or “the environment”), and *k’é* (relations). In 2005, both medicine people and Tribal Council leaders invoked these core concepts of Diné Fundamental Law in the passage of the DNRPA, a ban on uranium mining on the reservation that recognized the negative environmental and health impacts of the industry. Since 2005, the DNRPA has been a codified element of cosmology and ethics, informing the ways that subsequent arguments about energy development have been constructed, as in the case of the Alternatives Report. Integrating cutting edge renewable energy technologies into this ethical law and cosmological knowledge, weaving creation stories into discussions of energy policy, the authors argue that “the Diné have a sacred responsibility to rectify the forbidden practices” (such as uranium and now coal) that are wrought on the environment (Diné CARE 2008, 4).

In almost all cases, the cosmological argument links the technical concepts into a network of stories, images, and ethics that are more expansive than the definitions implied in the technical discussion, creating an *ethic of life* as the foundational principle driving the authors’ alternative energy proposal. Two examples stand out: health and wind. Health is redefined not simply as bodily health, but following the concepts of *hozhó* and *k’é*, as a relational health, the “complex balanced and interconnectedness of an individual’s relation to, but not limited to, the human, physical, intangible, spiritual, and cultural environment.” Such an interpretation of health is not limited to measurements of respiratory impacts or biomedical measurements, but “how the individuals who make up the group relate to one another, their surroundings and the environment” (p. 12). This
relational definition of health incorporates an aesthetic aspect, as well (hence, the *hozhó*), which the authors describe as a “vertical relationship” between the human and the non-human/deified worlds, allowing humans to “walk in beauty” by way of proper thinking (*nitsáhákees*) and a “good mindset.” In this way, “health” is conceptualized cosmologically and in a manner wherein the well being of the physical body is inseparable from the well being of the mind and further inseparable from the world surrounding that body/mind.

Similarly, the authors cite the DNRPA’s authority (and by extension, the authority of Diné Fundamental Law on which the DNRPA is based) in claiming that air, breath, and wind are “lifegivers” and must be respected and protected for all life to exist. “Nilch’í [wind] generates and sustains all life forms according to Navajo belief” (p. 43). This basis of authority then extends their argument for renewable energy technologies: “Toxins and air emissions from coal-based projects that do not ‘give life’ therefore calls for alternative energy projects that sustain all life forms and eliminate the chances that health defects may cause imbalances” (p. 13). And because “life follows water,” the mandate to promote technologies that “give life” leads their argument to consider water as one of the four sacred elements to be protected, making Desert Rock’s proposed use of 4500 acre feet of water per year untenable, especially given the ambiguities surrounding the lease to obtain this water.

As suggested, it is important to note that in the case of DNRPA as a source of legitimizing, epistemic authority, it is a case of cosmology codified into modern tribal law. For instance, Clause B of DNRPA states:

“The Navajo Nation Council finds that the Fundamental Laws of the Diné (*Diné*
Bi Beenahaz’annii), as set forth in the 2002 amendments to the Title 1 of the Navajo Nation Code, Resolution No. CN-60-02, support preserving and protecting the Navajo Nation’s Natural Resources, especially the four sacred elements of life – air, light/fire, water and earth/pollen – for these resources are the foundation of the peoples’ spiritual ceremonies and the Diné life way, and that it is the duty and responsibility of the Diné to protect and preserve the natural world for future generations.²⁹²

Written in response to impacts of decades of uranium mining on the reservation and the increasing pressure on the Nation to re-open old uranium mines and begin new mining, the DNRPA has become an exemplar of a Nation taking a strong stand against the powers of extractive industry and incorporating epistemological and ontological difference as part of their argument. Most recently, the DNRPA stance was invoked by the tribal government in their struggle to close down the Arizona Snowbowl ski area on the San Francisco Peaks outside of Flagstaff, Arizona. The city’s plan to re-use effluent sewage water to create snow for tourism and recreation atop a mountain considered sacred not only to the Navajo, but to several area Native Nations, created a longstanding legal battle that went to the 9th Circuit Court of Appeals in California. In the statement above, claiming and codifying specific natural resources as “sacred” and the “foundation” of a “life way” created a legal and ethical precedent to the claims the authors of the Alternatives Report are making about coal power technology. However, there is a cosmological dissonance in the debate; while recognizing the legitimacy of the DNRPA at it pertains directly to uranium, and acknowledging its use in the San Francisco Peaks struggle, advocates of Desert Rock do not interpret DNRPA as pertaining to coal mining and burning. In fact, they argue that developing coal can be commensurate with the

²⁹² Navajo Nation Code, 18 Section 1301, p. 798 (Diné CARE 2008, 41).
“balance and beauty” (*hozhó*) mandated by Diné Fundamental Law and that “atonement” can be achieved through proper offerings and ceremonies prior to extraction.\(^{293}\)

This is the context in which the Alternatives Report authors make their case, well aware of the slippery deployment of the DNRPA (and the Diné Fundamental Law on which it is based) and its core concepts. Refiguring “atonement” and integrating the scientific knowledge, in the Alternative Report’s section on Solar Energy the authors relay part of a creation story in which White Shell Woman (the supreme deity and initiator of all life) sends her twin sons out into the world to slay the roaming monsters and to meet their father, the Sun:

“When the Twin-Brothers grew up they took a sacred journey to their sacred father, the sun God. From their father brought forth with them the sacred armors and the sacred weaponry fortified with natural energies. They became the Twin-Warriors, *Naayéé Neizgháí* [Monster Slayer] and *Tó Bájíshchíní* [Born-For-Water], who supernaturally restored the world back to harmony and righteousness.”\(^{294}\)

The authors immediately link the cosmological teaching to contemporary energy politics, following the ethic of atonement back to the DNRPA:

“Naturally occurring solar energy serves not only as atonement for social and economic ills but is a natural resource codified and protected in Clause ‘B’ of Diné Natural Resource Protection Act of 2005 and Clause ‘A’ of Nahasdzáán dóó Yádíilhil Bitsaadee Beenahaz’áání – Diné Natural Law (1 N.N.C., Section 205). Diné teachings show that the Diné have depended and called upon the Sun

\(^{293}\) Desert Rock proponents made this argument about “balance” and “atonement” on many occasions during the course of the ten public hearings in July 2007 as well as in multiple op-ed articles in the *Navajo Times* between 2007 and 2008. All are part of the public record in this ongoing debate.

to provide the energy they need to sustain the environment and traditional economy (vegetation and agriculture). The same principle applies to utilizing solar energy for sustainable energy development without the detriment of health hazards, air pollution, and water depletion.**295**

This assertion of the sun (conceptualized both as a deity and as an atmospheric energy force) as responsible for atonement, ensuring “harmony and righteousness” as well as “sustainable energy development” integrates both cosmological and technical epistemologies, resulting in a particular, situated type of political ecology. The result is a dual sense of history: the ancestral past hovers alongside a sense of a possibility for a different kind of future – one “without the detriment of health hazards, air pollution, and water depletion.” The ethic of life and ethic of atonement supported by the cosmological argument are thus not separated out from the technoscience of solar energy or the policy precedents of the DNRPA, but are commensurable, interplayed epistemologies, at the same time maintaining the ontological difference necessary to historicize and demonstrate a particular, place-based, politics of heritage. This kinds of politics can also be read as “cosmopolitics,” wherein slowing down, considering carefully how to proceed, claiming historically situated and particular goods rather than universal, “common goods,” and ultimately, seeing the specific links that might, once assembled together, produce a kind of political ecology that is deeply attached and engaged in specific struggles (Diné CARE 2008, 70). Echoing Spinosa, Flores and Dreyfus’ discussion of “practical expertise” discussed above, Stengers writes:

**295** Ibid.
“Political ecology affirms that there is no knowledge that is both relevant and detached. It is not an objective definition of a virus or a flood that we need, a detached definition everybody should accept, but the active participation of all those whose practice is engaged in multiple modes with the virus or with the river … How to turn the virus or the river into a cause for thinking? But also how to design it in such a way that collective thinking has to proceed ‘in the presence of’ those who would otherwise be likely to be disqualified as having idiotically nothing to propose, hindering the emergent ‘common account’?” (Stengers 2003, 1002).

Cosmopolitical ecology is a knowledge being produced by the diverse authors of the Alternatives Report, locating its authority precisely in its attachments, oral histories, and active engagement with the landscape, air and water, and communities at stake in the Desert Rock controversy. The authors turn the sun and wind into a “cause for thinking” by situating these seemingly abstract actors into historically and culturally specific histories and stories, rendering them particular actors instead of universal realities. And they have designed this artifact in a way that does “proceed ‘in the presence of’ those who would otherwise be likely to be disqualified as having idiotically nothing to propose” by legitimizing grassroots research and oral histories alongside the expert knowledge of energy science and technology. Integral to their design was the role of grassroots ethnography in contributing to their own collective thinking and analysis, affirming knowledge that is attached, emplaced, and affectively (or “interpretively,” to follow Spinosa et al) expressed.

As this discussion of the Alternatives Report demonstrates, cutting-edge solar and wind power are becoming technologies for articulating cosmologies and notions of “the traditional” among many energy activists. Diné CARE and Ecos’ collaborative work to map concentrated solar power and other renewable energy technologies as an economically and geographically viable alternative to Desert Rock involves serious
consideration of the sacred aspects of the landscape of power in which they aim to situate these solar fields. Yet, this articulation requires work – as the Alternatives Report evidences – and is not a coherent or self-evident process. Another tribal member, renewable energy engineer, and energy activist who is involved in other threads of the renewable energy movement stated it this way:

“I always believe as a traditional Navajo that we are to the point where we are using our deities as a means for electrical power, which is the sun and the wind. These are all deities of Navajos. You have to pay respect, and you have to respect it to do that … We are starting to use things now that are a gift to us. You have to pay homage to use it, and it hasn’t been done yet.”

That the wind and sun cannot simply be harnessed, without proper “respect” shown through practices of “homage,” introduces a pause into the movement opposing Desert Rock, suggesting that these alternative technologies are not devoid of cosmo-politics themselves and require work to be brought into the Diné landscape. Identifying here as a “traditional Navajo,” as many elders like this individual identify, he expresses a need to reconcile a particular subject position (the “traditional Navajo”) with a particular mode of electrical power, named here as the deities of the sun and wind. This engineer has been active in supporting the Cameron Chapter’s wind farm proposed for Grey Mountain, working with Chapter President Ed Singer to secure their own contract with a developer and financier, apart from what the Diné Power Authority has pursued for Grey Mountain. In the context of his activist work on commercial-scale wind power, this

296 Interview with Larry Ahasteen, Former Director of Renewable Energy for the Navajo Tribal Utility Authority, Window Rock, AZ, June 17, 2008.
statement suggests that “respects” have to be paid at a grand scale – not just the individual offerings that might be made for a family’s residential system.

This articulation of identity (“traditional Navajo”) with technology (solar and wind power) and cosmology (deities of the sun and wind) situates projects like the Alternatives Report – as well as this engineer’s statement – within a different epistemology than is conventionally called upon in energy debates. In the same way that the public hearings showed that “Navajo philosophy” and identities are at stake in the controversy surrounding Desert Rock (far exceeding the technical and policy debates that dominate broader discussions on coal power plants), these statements speak to the cosmopolitics involved in Navajo energy debates. Moreover, they show that work has to be done to “pay respect” before what are often posited as good, safe, or clean technologies can be built as different kinds of development projects.

Conclusion

Once released, Diné CARE used the Alternatives Report as a tool of democratic action for engaging with other activist groups, the Navajo Nation Council, and with environmental organizations across the greater Southwest. First presented by one of the Diné CARE community organizers on a panel at Fort Lewis College in Durango, Colorado, the Alternatives Report began to have, in the words of this organizer, “a life of its own,” traveling across the reservation, into classrooms, board rooms, chapter houses, Tribal Council committees, and onto the desks of non-governmental leaders. The “life” of the Report was not without controversy, however, as it took a clear stand against the pathway of development being upheld by the majority of the Tribal Council. For
instance, after Diné Policy Institute (DPI) researchers endorsed the Report, stating they considered it well researched and providing an applicable framework for some of their own research into applying Navajo principles to environmental issues, the office of the Navajo Nation President pressured DPI to withdraw their endorsement. As DPI receives funding from the Navajo Nation Council, this was interpreted by some as a direct challenge to their academic freedom and an attempt to censor the knowledge production of this quasi-independent think tank. The DPI researchers held firm in their support, however, and the Alternatives Report was released to the wider public with DPI’s Statement of Support inscribed at the top of its cover page.

Ecos Consulting researchers emphasized the “world class” caliber and “global appeal” of the Alternatives Report, as it addresses very specific, local issues of climate change, development, energy technology, and history, but at the same time speaks to the national debate over coal and to a wider audience sharing these matters of concern. The Report made its way onto the desk of a staff member at the National Wildlife Federation, who then sent me an email asking whether or not I had seen it. Diné CARE members began the painstakingly slow work of taking their document to the meetings of local chapter governments, presenting the issues at stake to area residents (in the Navajo language) and requesting Chapters pass resolutions endorsing the document. This method of grassroots political change is intensively time consuming and arduous, but the Report’s authors saw this as the best way to not only generate widespread, grassroots support for the their vision of a different landscape of power for the Navajo Nation, but also to engage in community education on the issues at the same time. They took the Report to tribal leaders in the Navajo Nation capitol of Window Rock, using their
findings and recommendations as a way to promote dialogue and press for change in energy policy. Diné CARE activists issued a press release to notify the media of the Report’s publication, and made the Report available for download off of their blog, offering open, online distribution of the document to anyone interested.

Put into circulation in these ways, the Alternatives Report carried its technical, cosmological, and ethnographic narrative to various publics in the region and beyond, making its case for a shift from centralized fossil fuel power production for export, to decentralized renewable energy power production for local consumption and export. The life of a document is unpredictable, however, and the future of the implementation of the Alternatives Report’s findings remains an open matter. It has worked already to advance the debate on coal power versus renewable power across the Navajo Nation and to stabilize the connections between the cultural and technical dimensions of energy development.

The public nature and dispersion of these two energy events (geographic dispersion for the hearings and electronic dispersion for the Report) enabled them to insert themselves into ever-widening networks of concern over development on the Navajo Nation, regional pollution, bolstering renewable energy and processes of democratic decision-making. The various modes of expertise they brought together make both exemplary events (and artifacts, in their publications) of energy politics, illustrating the hybrid knowledges vying for legitimacy and recognition in this struggle over the emergent object of Desert Rock. And while the hearings, for instance, were perfunctory and performative, their outcome exceeded the three-minute limit of their mandated form; as each of the ten hearings took place, the movement opposing Desert Rock saw and
recognized its own presence and expert power, gaining momentum as the month went on. Conversely, the project proponents were pushed beyond their standard discourse of “jobs and revenue,” having to counter the opposition’s mobilization of ethical and practice expertise with a significant measure of their own. And though the hearings are structured as testimonials – individual speakers making statements on the record to an unresponsive audience – their effect was far more dialogic, with speakers challenging remarks made at previous hearings, anticipating others’ arguments, and drawing upon (while also contributing to) the language of energy politics that the hearings helped generate. Thus, what began as a regulated, federally mandated exercise in liberal democracy exceeded its own boundaries, generating a truly vibrant space of democratic encounter, contentious dialogue, and contesting modes of expertise.

As the testimonials from the public hearings demonstrate – bearing in mind speakers from both sides of the issue – much more is at stake in Desert Rock than the hardware of electrical generation or the financing of large-scale development. Both opponents and advocates of Desert Rock would likely agree with Hank Dixon’s statement: “This is what is at stake: the very philosophy that makes us Navajo.” This philosophy of identity was being debated on the chapter house floors, in the Ute Mountain Casino, and in the pages of the Alternatives Report, in between the engineering science, energy financing, and geographic topographies of concentrated solar troughs. And yet, this philosophy of identity is also a politics of identity – always at work in the politics of recognition (Honneth 1995) – and as such, is fraught with fault lines, internal diversities, mixtures of multiple “outside” forces, and competing visions of what “ought” to be the Diné
landscape of the future. Therefore, these hearings and the Report became ways of working out particular understandings of Diné identity vis-à-vis technology.

These two energy events, and their embedded struggles over identity and technology, suggest there is both a techno-logic of energy issues – as we would expect – but also a cosmo-logic of energy issues. Yet, rather than being knowledges that exclude one another, they are interpenetrating modes of expertise. Activists from both sides of the Desert Rock issue draw upon both logics to advance their particular visions of Diné identity and the energy future of the Navajo Nation. As such, we cannot understand the rich dimensions – or politics – of energy debates on the Navajo Nation without recognizing these multiple and hybrid forms of expertise.
Interlude 5: Energy Flows

I was awakened this morning by rolling thunder, followed by the sound of fine hail falling on the metal roof. Opening my eyes, I looked out the second story windows and saw the trees covered in snow. Snow, on the fifth of June. It started raining last night around 9pm, and was still raining when I climbed the kiva ladder up to my bed in the loft. It was chilly – I slept in a sweatshirt and socks, beneath the down comforter, but never expected it was cold enough to snow. It’s a fine and wet snowfall, however, and will surely melt in an instant when the sun comes out. But by 8:15am, still no sunshine and therefore, no electricity. The batteries on our system are quite obviously worn out, barely holding a charge. The trickle of sunlight remaining in the batteries is just enough to run the coffeemaker or the television, but not both, so I will have to choose between addictions: coffee or the morning news. The sky appears hopeful, however, and I think we’ll have sun by midday.

The house is cold. And to think that just two days ago, Adella and I almost brought the extension ladder inside so I could climb up and open the second story windows to let in fresh air because the house was getting too hot. The dramatic weather changes here continue to surprise me. I was unprepared for this one, and have no dry wood. Winter’s woodpiles are almost picked clean, but there are some really nice pieces of cedar, pine, and oak remaining. Only now, they are dusted with wet snow and won’t
burn well. About a half hour ago I started a fire in the stove with cardboard, wood shards, and newspaper. It burned for a few minutes, but couldn’t last. I’ve got nothing larger to put on it, so just let it go, and will layer up with warm clothing and clutch my hot mug of coffee in between typing spurts, to warm my hands. The ground is wet and spongy now, with a thin slipcover of mud, getting wetter as the snow begins to melt. I don’t know if I’ll want to brave our muddy road, even with four-wheel drive, to make it to the tribal college for my Navajo language class this afternoon. I will wait and see what the sun can do.

I’ve decided to walk down to Angie and Jay’s hogan and see if they have any dry wood. Just yesterday, I’d watched Angie split logs, agile as a teenager, one gloved hand sliding confidently down the axe handle to meet her right hand as she swung the heavy blade without hesitation. I remembered she used to work for the logging company; she’s spent her sixty-plus years converting these pines into consumable pieces. Before I can get outside, however, I see Angie walking up towards our house. I open the front glass door to greet her, and warn her that the house is cold. She seems a little surprised – probably disappointed – that I haven’t gotten a fire going yet. “There’s dry wood under the wet wood in those piles,” she says, with a hint of reproach. I feel ashamed, lazy for not trying harder to get the house warmed up, for being defeated by a thin, if unexpected, layer of snow. We walk together down to her hogan, where her stove is raging inside and the home is warm. “Almost too hot,” says Angie. She sits on the edge of her cot and I stand close to the stove, trying to feel my toes come to life again inside my leather boots.

She tells me she doesn’t like the kind of wood stove Adella has. “It’s just for show,” she says, “but it doesn’t warm up the hogan well at all.” Hers is an older design,
with four burners on top for cooking, a single door for feeding logs, and a straight stove pipe that goes directly up and out the center of the hogan roof, its top mounted to the ceiling with a few pieces of thin wire. She tells me that after three years of putting in applications to the low-income office in Chinle, she will finally get a heating stove for her home. “I’ve been denied every year for three years,” she says, “when there are people a lot better off who get all kinds of nice things from them. But I got the letter yesterday saying we’d finally been approved [by the Chapter], and so Jay is gonna go down there and get our stove today.”

Inside the hogan, quilts washed yesterday in Gallup are drying quickly on indoor clotheslines in the hot, small, one-room dwelling. These are permanent ropes that Angie keeps up inside her home for hanging clothes, blankets, even shoes, keeping them dry and off the dirt floor. She tells me about one time “some years ago” (a common expression of hers to indicate the distant, but not too distant past) when it didn’t snow all winter, then started snowing in February and snowed up through June. June snows are rare, she tells me, but not unheard of. And then another season, “around 20 years ago,” when it snowed in September, but then got warm again and stayed warm and dry up until December. She remembered that particular season because she, her mother and her oldest sister were down by the lake picking piñons all Fall, and they just kept picking and picking, yet winter never came. They picked until one day her mother said, ‘Okay, let’s stop now – it’s time to go.’ They sold the piñons to trading posts in Gallup, using the cash they earned to make their monthly truck payments. “That’s how we did it,” she said, “we always could pay [for] our vehicles with the piñons.”
After dinner – pasta boiled on the gas stove with water we’d hauled home from the spring that morning – Adella and I went out walking as we often do. We headed down the logging road rather than up the steep, unkempt trails on the butte as she usually prefers. Nearly dusk, the temperature plummeted again, though the snow was long gone. Through the thinned forest, we could hear a loudspeaker, amplifying gospel music from a nearby tent revival being held back in the woods in the direction of the well. Earlier today, I’d seen a sign for the revival posted at the end of a dirt road, just across the highway from the Wheatfields Chapter House. I figured Angie and Jay might be there. As we walked, I heard the soaring timbre of the minister’s voice, muffled slightly by the trees. Copper and BeBe trotted alongside us, nostrils alert for unseen, forest gems and predictably, when we got close to the old horse bones, they wandered over to where there is no longer even a visible carcass, just half a ribcage, and began audibly gnawing at the leathery remains. A few moments later, I heard the high-pitched, frantic whinny of horses – definitely more than one – coming from just on the other side of the pines, probably from the pasture farther down our adjacent road, where the dozen or so horses that graze this area are corralled at night. Their crying seemed distressed, and I could hear them running, though I never saw them. I stopped, cocking my head to one side, and heard all of these sounds at once: gospel music of the Christian revival, the dogs’ crunching on decaying horse bones, the cool wind in the pine branches, and the crescendo of spooked horses, running.

As we returned home, I thought of how energy flows through various materials in our household, apart from the solar array and its batteries: the sun, wood, coffee, pasta, and my own ears, entering my body as heat, food, water, and sound. Energy’s
conversions are more evident here in the rural Chuskas, where the ponderosa pine stumps we walk among are blunt memories of Adella and Leroy’s efforts to conserve the energy of this forest. Energy flows reveal power itself – how some of us can exercise choices, while others’ options, mobilities, and consumptions are more constrained. All flows are interdependent, situated, and relational. My pleasure in the mundane chore of four-wheeling my truck to the well this morning to collect water, or checking the charge on our solar system is tempered by Angie’s desire for pipelines and power lines. As we approach Angie’s hogan, wood smoke curling out of the roof’s tin pipe, chasing the darkening sky, Adella stoops to pick up an empty, rusting Coke can from the muddy roadside ditch. We walk home in silence.
Conclusion: Coda

Riding a wave of momentum following their release of “Economic and Energy Alternatives to the Desert Rock Energy Project,” Diné CARE took their concerns directly to the transnational corporation responsible for the development of Desert Rock. It took months of crafting and mailing registered letters, making phone calls, and continually pressuring the company’s administrative gate-keeping apparatus to secure a meeting with Sithe Global Power’s top decision-makers in their New York offices. Diné CARE leaders wanted face-to-face negotiation, eschewing others’ proposals to stage pickets or blockades on the company’s doorstep. Five years into their opposition of Desert Rock, the group felt they had invested too much to risk being dismissed as the predictable, angry protestors, nor did they want any media attention on this encounter. What they desired, rather, was a chance to see – and be seen by – the individuals working to build Desert Rock, from a distance. In April 2008 they had their chance, traveling to New York City for a (thrice-confirmed) meeting with Sithe Global Power, scheduled into their existing itinerary to speak on energy and human rights panels at the United Nations Permanent Forum on Indigenous Peoples. On a breezy New York morning, following a breakfast meeting at the Holiday Inn to prepare for the encounter, four members of Diné CARE and I sat down face to face with the company’s Chief Executive Officer (CEO) and Chief Operating Officer (COO) in their 31st floor conference room on Park Avenue.
A. Environmentalists on Park Avenue

The Sithe Global Power executives welcomed their visitors with robust enthusiasm, the CEO straightening his tie and leaning into the glossy mahogany table as he explained how he began his company twenty-five years ago. It was a start-up venture focusing on renewable energy, especially small-scale hydroelectric projects in the Western United States. Today, with four large-scale coal-fired power plant projects in the United States (in Georgia, Nevada, Pennsylvania, and New Mexico), hydroelectric plants in Guyana and Uganda, “sustainable oils” in various African countries, and other projects in Canada and Italy, Sithe is a global leader in coal and hydropower generation.

“I consider myself an environmentalist,” said the CEO, as we settled into our leather chairs and glanced out the expansive windows for a bird’s eye view of teeming Park Avenue below. He continued: “I’m one of those environmentalists that still believes in hydroelectric,” he continued, elaborating on Sithe’s newest project in the Philippines: a 600-foot hydroelectric dam. Placing a large, hardback book on the table for the five of us to examine – a collection of high-profile, color photos of the project – he praised the dam’s environmental merits, explaining its manifold purpose: to provide power to the capitol city of Manila; to supply irrigation for the rice crop, which would take small farmers from 1 rice crop to 3 crops per year; to create flood control as an additional benefit, and finally, to improve the overall water quality downstream, distinct from the heavy metals in the water above the dam. He explained how the dam project relocated 5,000 people during construction, winning awards for Sithe and the company’s relocation strategies. In fact, he told us, Sithe “set a new standard” in the industry, in that each person relocated had to be “better off after relocation than they were before.” A shudder of discontent moved through our group. Later on, we marveled at his wordsmithing: to
speak of “relocation” instead of “displacement,” and to boast the dam’s accolades based on suspicious methods and ambiguous measures.

Gesturing toward a large map of Africa, framed and mounted on the boardroom wall, the CEO lauded another one of the company’s global water projects: hydropower in Uganda, where Sithe Global gains carbon credits by “displacing” Ugandan dependency on oil. He elaborated: “Uganda has the problem of being land-locked geographically, so they are currently using up to half of their total oil consumption on transportation alone.” Installed on the Nile River, the new dam when completed will generate 250 megawatts of hydropower to “replace” the country’s oil dependency. We recognized this statement’s troubling logic of offsets and replacements, part of the global market of carbon “cap and trade,” which posits virtual solutions permitting polluters to purchase emissions credits from other plants with lower emissions, instead of installing the technology to reduce their own emissions. Our faces must have appeared perplexed, as the CEO quickly assured everyone that the Uganda project has had “tremendous local support.”

Questioning his criteria for “local support,” one of the group asked about the company’s involvement in Uganda and broader position on corporate social responsibility. “If I had time,” the CEO replied,

“I’d like to show you reams and reams of information on our corporate social responsibility. We dragged Blackstone\(^\text{297}\) to Africa. It was their first investment there. What appealed to us about the Desert Rock Energy project here is it appealed to us to support one of the lowest income groups in the U.S. We are committed to training and jobs – and as much as possible for the Navajo people.”

\(^{297}\) The Blackstone Group is the private equity firm partnering with Sithe Global to design and finance the Desert Rock Energy Project in addition to as other transnational energy projects. Blackstone’s corporate offices are also on Park Avenue, a few blocks south of Sithe Global.
Noticeably miffed at being so quickly homogenized among the globally impoverished, another colleague moved quickly to challenge the CEO’s progressive narrative, arguing that although “training and jobs” were indeed needed on the Navajo Nation, Desert Rock was not the only way to create them. The activists then presented the executives with a bound copy of their 200-page report, “Energy and Economic Alternatives to the Desert Rock Energy Project,” noting the section in which is discusses the employment and revenue potential of renewable energy for the Nation. Glancing at the Report’s cover, the executives promised to review it later, apologizing that they would have to end the meeting soon. They had an appointment with the President of Liberia to work out plans for a new biofuels project in his country.

Knowing his guests were concerned about the health of the people living around the existing coalmine and proposed Desert Rock site, the CEO tried to persuade that “carbon is not a pollutant from a health perspective.” Visibly perplexed, even stunned by this dubious claim as well as by his effortless discursive move to isolate carbon from other contaminants released by burning coal, one activist replied, “but carbon is now the known number one threat to global warming.” As if awaiting this challenge all along, the CEO produced two handouts on climate change. The first was a diagram depicting polar ice melt, showing glacial expansion rather than retraction under current global climate patterns. The second was a “Temperature Rankings and Graphics” handout, charting global temperature changes over time and showing no considerable rise in recent years. When one of the visitors questioned his sources, he said Sithe worked with a group of scientists who were originally part of the International Panel on Climate Change (IPCC),
but withdrew because they felt “their positions weren’t being taken seriously.” We faced a self-proclaimed environmentalist, an advocate of renewable energy and coal power, and a critic of the dominant science on climate change.

The surprise of this performance of false science, following the CEO’s numerous attempts to convince his visitors of his credentials as an “environmentalist,” was a reminder of how environmentalism is no longer an “alternative” politics in many cases. Rather, environmentalism is not pre-figured, increasingly promoting an ethics of protecting and conserving nature when culture(s) is quite literally “displaced” to support broader developmentalist, modernist agendas. Glancing at his watch, the CEO rose from the table and courteously thanked his guests for their time, promising to be in touch. I felt a surge of distress; in my role as a documentarian, I had said nothing during the meeting. The silent anthropologist posing as an environmentalist, I realized with a sinking feeling that the CEO had been, all along, speaking to me with a confidence that assumed our common phenotype secured an unspoken alliance between us – and I had done nothing to disrupt this. I wondered if my notes would be enough.

Suddenly, the meeting was ending – with no tangible outcome or resolution, though Diné CARE had invited the executives to come out and visit the Navajo Nation, to get a sense of what things “are really like out there.” Before she stood to leave, one of the group seized the pause that lingered before the niceties of the exit began, stating in a calm and careful manner, “We are not environmentalists. We are citizens, working for our people, to protect our way of life.” The executives seemed to listen to her, yet unsure how to respond. Goodbyes commenced, and we were escorted down a different hallway from the way we entered, bypassing the reception desk and exiting the office through an
alternate door. We rode the elevator down to the lobby in silence and retraced our steps back through the building’s high-level security checkpoint, presenting the photo ID’s made for us on our way in – proof of who we are.

B. “Who We Are” and the “Ethical Commitment”

This scene is both a significant encounter in the whole debate over Desert Rock, its complex legacies and indeterminate future, but also brings together the core theoretical themes that run through this dissertation: the polyvalence of power, the productive aspects of the emergent, and the role of anthropology as it works to engage common matters of concern in crowded fields of research and action. Following many months of anticipation, the New York encounter with Sithe Global produced a number of unexpected, awkward, and revealing moments, confirming the deep-seated ways in which indigeneity has come to be associated with the environment in the popular imagination. The CEO’s discursive risk was to attempt, through detailed eulogies of global renewable energy projects, to bridge the obvious cultural and historical difference between his position and the Diné activists’ positions vis-à-vis what he presumed to be the secure pathway of shared politics: environmentalism. His performance suggests that he banked on environmentalism (as a politics) and being an environmentalist (as an identity) as a means of reducing the presumed distance between the indigenous and the non-indigenous.

Two months later, one leader reflected upon her experience in New York in a manner that deepened my understanding of the fundamental discord in this encounter, despite its physical intimacy:
“You know, when you’re way over here on the reservation, you read about all these corporations, oil companies, big corporations sitting there like in an ivory tower or whatever … they don’t see what’s happening down here to the people. These are people, human beings, their hearts are pumping, they live, they’re alive, these people that are impacted by all this pollution. They don’t know what’s going on down here. They probably hear about it, but the actual day-to-day thing that’s happening, no. I was there and all those things I was thinking about. And I was angry … And I wanted them to know the difference between our culture and theirs … They have more power, but they have the power only with money – they have the power because they have the money. And our people do not have the money. But we have that power, too, that we’ve always had. That’s what I was thinking about when I was sitting there, ready to jump over the table at them. And the way that they presented their side … the guy kept saying he was an environmentalist! And I was so upset about that. And he was looking at us like we’re a bunch of environmentalists, too, just like all of these NGO’s, these big environmental corporations, organizations, whatever. But to me, we are fighting for who we are. That’s the way I see us. Our fight is different, I think. Who we are, what we want our children to be, to live in this area where we live, on our land here, to continue to live here and not to be thought of as people that don’t have anything, people that know nothing. We don’t want to be looked at like that. That’s what I was thinking when we were there.”

As Anna’s recollection suggests, the boardroom encounter produced more than a debate over the technical, financial, scientific and policy pros and cons of building a new coal fired power plant the Navajo Nation. Rather, it was a confrontation of difference, generating a refusal that contains within it the ember of emergent identities and politics.

The encounter revealed that at stake – as throughout the wider energy debates surrounding Desert Rock – was the problem of, in Anna’s words, “who we are.” Yet this is not a straightforward “cultural” difference or even “indigenous” difference in a categorical or essentialist sense; the problem, rather, is a difference between lived, ethical worlds, worlds that are populated by different experiences, concerns, beings, and legacies that render their encounter partially incommensurable. The incommensurability, and slippage, of environmentalism is a way of reading how these worlds speak in different

298 Interview with Anna M. Frazier, June 13, 2008.
moral grammars. As Escobar argues, identity in political struggles is indeed an “articulation of difference” made within a wider “economy of power,” irreducible, in this case, to the category of “the indigenous” as commonly understood. In other words, the “who we are” at stake is not an “ethnic identity” but more of an “ethical commitment” (Arturo Escobar 2008b, 203).

The “ethical commitment” being expressed through Anna’s rejection of environmentalism is not fully articulated. The encounter with Sithe Global and the urgent discussions surrounding sovereignty, subjects, the future, and knowledge as discussed in previous chapters, suggests that the moral logics of Desert Rock exceed “environmentalism.” There is a different ethical commitment at work, marked by a difference that is irreducible to simply “being Navajo,” although being Navajo has something to do with this distinction. In her analysis and dialogic self-positioning against environmentalism, the fundamental matter of concern is not “nature” or “the environment” as a thing in itself to be protected – as enduring associations with North American indigeneity assume. Instead, her refusal suggests an ethical commitment to guarding and generating something that escapes conventional, globalized notions of the environment or environmentalism. Anna is invested in protecting and producing a particular ethical world, in which “our way of life” is sustained. This is evident in her characterization of the energy executives as people who, located in their “ivory tower,” were unable to “see” the world of “the people” on the Navajo Nation; yet this assumption was reworked through an epiphany during the encounter: they were, of course, “human people just like us” but lacking in critical knowledge (“they don’t know what’s going on”). So perhaps they can “hear about it” but still, they do not “know.”
The real thrust of Anna’s anger concerned the epistemic and ethical disjuncture that his deployment of “environmentalism” suggested. Her sense that he was, “looking at us like we’re a bunch of environmentalists” erased the subjective positioning and ethical commitments that she, and others, felt were really at stake in the matter. Rather than being an environmentalist, she argued, “we are fighting for who we are.” This suggests a commitment that involves asserting the future through enabling the collective identity of future generations (“what we want our children to be”); ensuring a lived identification with a specific and historical landscape (“to continue to live here”), and not being identified through notions of material and epistemic lack (as “people that don’t have anything, people that know nothing”). Thus, the other side of her refusal of environmentalism is the affirmation of a way of being and knowing that is itself a collective, ethical commitment (“our way of life”) and identity (“who we are”).

I understand the negative space opened up by rejecting environmentalism and asserting an alternate, collective identity and ethical commitment to be a space of generative refusal. The generative refusal is a statement offering a way to trace and seek out what is inchoate or emergent in a negation, which at first glance appears to be a closure, such as: I am not ‘x’. It is to be aware of the signaling of the speaker’s own apprehension of difference – however undisclosed it might be – as well as the nascent hope implicit in the critique. That is, we re-orient ourselves as critical ethnographers to be able to better listen to what the refusal contains within it, without assuming to know the articulation of difference (i.e., indigeneity) and ethics (i.e., environmentalism) in advance. Instead, we listen carefully to the generative refusal for insinuation and suggestion, however well-formed, or, as I argue in this case, more inchoate, of a different
ethics and identification. This is part of the social practice theoretical framework that aims to move beyond the dominance of resistance theories and their essentializing tropes of liberatory subjects.

Notably, this “fight” to define and to protect “who we are” is not the restricted realm of anti-Desert Rock activists. As the dissertation has shown, this “fight” is a common struggle among and between actors across the spectrum of energy activism on the Navajo Nation, despite their shifting positions on the given energy issue up for debate. In question is how to secure this collective identity and the materiality of its related, contested visions of the future: quite literally, it is a question of what technologies (and broader interdependencies) will assure the Diné Nation a healthy, independent, collective life now and into the future. All of the differently positioned energy activists in this struggle are striving for this life, debating “who we are” as a collective identity vis-à-vis particular proposed technology (Desert Rock), and the complicated legacies and futures it summons. This collective identity asserts Diné people as social actors in national and international energy development debates even as they differ and debate, as a collective, on how “who we are” ought to be practiced in the landscapes of power shaping – and being shaped by – the Navajo Nation.

Thus, the crucial question to emerge from this encounter is not whether Anna and others opposing Desert Rock identify with environmentalism. Certainly, at some moments they do – as when Navajo Nation President Shirley claimed “environmental activists and organizations are the greatest threat to tribal sovereignty” (see Chapter IV), and they recoiled, insulted by the accusation; while at other moments, such as Anna’s personal reflections, the identification with environmentalism is rejected, outright. There
might as well appear to be a fundamental contradiction in Diné CARE’s identity as an organization: they reject environmentalism as an identity and politics, on one level, but also identify as Diné Citizens Against Ruining our Environment in their very name. The more interesting question, and the one to which this dissertation brings us, is what collective identities and ethical commitments such refusals might generate; that is, what cannot be contained by the well-worn categories of ethnic identities and political action? In other words, what else is at stake, beyond what we already (think we) know?

C. The Disappearance and Significance of Desert Rock

This dissertation has explored energy development as an area of emergence; more specifically, it has traced the controversy surrounding Desert Rock, a large-scale, coal-fired power plant slated to be built on the Navajo Nation, proposed within a complex, longstanding legacies of extraction on the Nation. I have argued that, as an emergent object that conjures both utopia and dystopia, Desert Rock has had a productive, transformative effect on the Navajo Nation and beyond – regardless of whether or not it is ever built. It has not only reinvigorated longstanding movements advancing, and resisting, various technologies and scales of energy development, but it has generated a collective space for the contestation and re-articulation of common values and ethical commitments. This analysis has reframed the widespread, yes-or-no question of whether or not the power plant will be built, toward a question of anthropological and activist concern: how is the problem of Desert Rock (and energy development more broadly) producing new articulations of energy histories and institutions of knowledge production (Chapters I and II); meanings of tribal sovereignty (Chapter IV); artifacts of Diné
subjects, landscapes, and energy futures (Chapter V); and forms of expertise (Chapter VI). Taken together, these new articulations are part of emerging identities and ethical commitments being worked out through passionate negotiations over the future of the Navajo landscape.

At the time of this writing, eight years after its initial proposal, Desert Rock has not been built and its future looks increasingly uncertain. Much of this has to do with transformations in electoral politics at the federal and tribal level. The federal permits and approvals the project needs to materialize are entangled in lawsuits and regulatory processes, extending the work of the attorneys, activists, tribal leaders, and agency directors participating in its emergent state. It appears unlikely that the Environmental Impact Statement will ever be finalized and the crucial Permit of Significant Deterioration (PSD), remanded in September 2009 under President Obama’s administration, does not show any signs of being re-issued. Another federal blow to Desert Rock concerns the other forms of life it depends upon for its own: the biological life threatened by coal processing emissions. The Draft Biological Opinion (another federal requirement under NEPA) found that the San Juan River, home to the already endangered Colorado Pikeminnow and Razorback Sucker, is already polluted beyond acceptable thresholds with mercury and selenium from the landscape’s existing coal power complex.

At the level of tribal government, Navajo Nation President Joe Shirley, Jr.’s two terms have come to an end and a new administration is now in Window Rock. Until the elections in November 2010, Shirley continued to be an outspoken champion of Desert Rock, despite its many obstacles, standing by the project along with a number of Council
Delegates. However, in a twist of politics demonstrating the porous boundaries and shifting ground between “activists” and “tribal politicians” on the Navajo Nation, Earl Tulley of Diné CARE ran as the Vice-Presidential candidate on Lynda Lovejoy’s Presidential ticket. The outcome was a very close race which, had they won, would have ushered the Navajo Nation’s first female president and first open environmental activist into the highest positions of governmental leadership. We have yet to see how or if the new leadership of President Ben Shelley and Vice-President Rex Lee Jim will depart from, or continue more of, previous trends in energy development policymaking.

The political climate of coal has changed dramatically since 2003, as well, with former U.S. President George W. Bush’s dismissal of climate change evolving into a social fact by the time Barack Obama took office in 2009. In the wake of the economic downturn of 2009 combined with the upswing in state mandates for renewable energy generation and some utilities being banned from purchasing coal power altogether, corporate investments in coal power became much more uncertain, pushing many companies to abandon plans for new coal-fired power plants. Even Sithe Global, developers of Desert Rock, in March 2010 canceled plans for coal-fired power plants in Nevada and Pennsylvania. With the growing possibility of carbon cap-and-trade or carbon tax mandates, investors are increasingly reticent to underwrite coal. Sithe Global has postponed Desert Rock’s future at least “beyond 2015,” and in June 2010 let a $3.2 billion industrial revenue bond expire, losing the major source of funding for the plant’s construction (Paskus 2010). Desert Rock hovers in this climate of risk and uncertainty.

Apart from these electoral and fiscal politics, however, Desert Rock’s waning possibility has had everything to do with the effects of the broad-based, diverse social
movement opposing its construction. And though its materialization appears increasingly unlikely, Desert Rock’s most vocal critics continue their work. Diné CARE and members of the San Juan Citizen’s Alliance continue to monitor Desert Rock’s status and pursue litigation through FOIA requests and other means. Diné CARE organizers disseminate their Alternatives Report, using it as an object for dialogue with local chapter officials, Council Delegates, and situating it in wider networks of energy activism around and beyond the Southwest. Grassroots coalitions ride the momentum and networks strengthened through their organizing against Desert Rock as they confront other energy proposals as well, such as the probable re-opening of the Black Mesa coal mine, pressures to overturn the Navajo Nation’s moratorium on uranium mining, and most recently, the problematic question of “best available retrofit technologies” potentially mandated by the U.S. EPA for the heavily polluting, existing coal power plants located on and near tribal land (the Navajo Generating Station and the Four Corners Power Plant). Beyond energy production, this movement contributes to the vibrant, critical, public dialogue concerning other aspects of Navajo landscapes of power, especially the present negotiations over the Navajo Nation’s water rights and the new groups of tribal members organizing in response, such as the newly formed Sacred Elements Youth Collective. Thus, even as Desert Rock fades, its traces (the research and knowledge it generated, the building of alliances, the new and fortified subjects of energy activism, the articulations of sovereignty) fuel ongoing dialogues concerning competing visions of the future of the Navajo landscape.

However, Desert Rock’s probable defeat does not promise construction of the wind and solar alternatives that have, dialogically, gained luster through the specter of the
power plant. As the energy interludes dispersed throughout the dissertation suggest, the future of solar and wind power on the Navajo Nation, for both off-grid communities and grid-tied commercial projects, is very much without guarantee. Klagetoh Chapter residents toss defunct panels on woodpiles at the same time Cameron Chapter residents anticipate consuming and distributing electricity from the massive wind farm that will soon be built on Grey Mountain. Both locales rely upon invisible and visible infrastructures and wider dependencies (of expertise and maintenance, funding, research and design, federal law, environmental policy, and movement momentum) to become stabilized and lasting. Moreover, the position of “the alternative,” to return to Raymond Williams, while often seen as “oppositional” to “dominant” forms, can “by pressure, often [be] converted into it” (Williams 1977, 126). For example, although Sithe Global canceled their coal-powered Toquop Energy Project in Nevada, the company has replaced it with plans for a 700-megawatt natural gas plant combined with 100 megawatts of solar power (Paskus 2010). Thus the question remains open for the diverse energy activists working to transform Navajo landscapes of power as to whether solar and wind projects will challenge and change the legacies of extraction shaping the landscape and population, or work as complementary technologies, “facsimiles of the genuinely emergent cultural practice” (Williams 1977, 126).

As an emergent – and now disappearing – object, Desert Rock remains significant well beyond its brief moment of possibility; indeed, its full meaning is still unfolding even as this story comes to an end. It has produced a space for new negotiations of sovereignty, identity, cultural production, knowledge production and expertise, and visions of the future, assembling crowded fields of research and action. Importantly,
Desert Rock’s productivity not only concerns its own uncertain future, but contributes to a wider, critical public dialogue concerning the future of the Diné landscape, the Nation’s ethical commitments as a collective, technological projects, and Diné people as social actors in these complex, global energy debates. As a fulcrum for understanding broader colonial conditions and landscapes of power facing the Navajo Nation, Desert Rock demonstrates how a “failed” or “defeated” development project can generate a range of unanticipated effects, which in fact productively advance the Navajo Nation’s debate over “who we are” and want to become.
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