

ABSTRACT

BRADSHAW, LAURA HEPP. *Naturalized Citizens: Conservation, Gender, and the Tennessee Valley Authority during the New Deal.* (Under the direction of Katherine Mellen Charron and Matthew Morse Booker).

Broadly, this thesis is an examination of the conservation movement and the Tennessee Valley Authority from the Progressive Era through the New Deal. The creation of the Tennessee Valley Authority in 1933 had been premised upon earlier efforts to capture the river's power and harness it to meet social needs. Harnessing hydroelectricity to remedy social and economic conditions in the South required both environmental engineering techniques and social engineering methods. By placing women at the center of the story, both in terms of their activism in bringing a conservation plan in the Tennessee River Valley into fruition, and in terms of the gendered implications of the Tennessee Valley Authority's power policy, this thesis seeks to reexamine the invisible role that the construction of power politics had on the South, and the nation as a whole.

Naturalized Citizens: Conservation, Gender, and the
Tennessee Valley Authority during the New Deal

by
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DEDICATION

To my family, but especially to Karl Hepp Sr., whose own journey inspires me to open new doors, even when they appear locked. *Papa, a dal van a lelkenben.*

And to Michael Bradshaw, who makes opening new doors fun.

BIOGRAPHY

Laura Hepp Bradshaw grew up in southwestern Ontario, Canada. She earned a BA in history with a minor in environmental science in 2008 from North Carolina State University, where she graduated summa cum laude. She will earn her MA in history from North Carolina State University in May of 2010. She plans to continue her studies of environmental and gender history as a PhD candidate at Carnegie Mellon University.

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fostering my intellectual curiosity in environmental history and remained unfailingly interested in this research from its inception, no matter what form it took. I hope I have finally answered the “so what?” question he so frequently posed to me. Finally, all that is good on the following pages is because of Katherine Mellen Charron’s devotion. I could not have asked for a more wonderful guide through this process, or a better mentor. Katherine’s keen eye for detail forced me to take a better look at the leaves on the tree when my own inclination was to focus on the forest. She embodies all that I hope to one day become as a scholar and a woman in academia. Sometimes thank you seems an inadequate expression of gratitude; this, especially, is one of those instances.

While researching this project, I spent a few weeks in New York at the Franklin D. Roosevelt Presidential Library. Shivender Singh, the best friend I could ever ask for, kept me fed and housed while I made the long trek to Hyde Park, New York, to do research. I know of no one else I would rather spend weeks at a time with, and few others who would have cheerfully put up with me for so long. When I returned to North Carolina, Shivender also spent his weekends procuring important archival documents for me to help fill in gaps in my research on the African American response to the TVA. Friends and fellow graduate students Robyn Adams, Shane Cruise, Matthew Hulbert, and Stephanie Schroeder encouraged me back at home and made my graduate student experience less lonely.

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My parents, Joan and Karl Hepp, have been my greatest champions. Among the many gifts they gave to me, the freedom to make my own mistakes was perhaps the greatest. Though I stumbled frequently and fell often, they were always there to pick me up and help me dust off. Their love and encouragement helped me to find my own voice and to trust in it. Their belief in me propelled me forward even when I felt like I could not take another

step. My husband, Michael, encouraged me to go back to school and this encouragement opened up doors I never imagined existed. Though he may have regretted it on nights when he made dinner and ate alone while I stayed late at the library, Michael never wavered. Creative freedom frequently comes at a cost, and I fear Michael paid a higher price than I. I could not have asked for a better partner on this journey and I owe much of the fruits of this labor to him and his patient endurance as I carved out time and space to complete this thesis.

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INTRODUCTION

Like many federally employed writers and artists of the New Deal period, Lorena Hickok's job brought her face to face with poverty during the 1930s. Traveling across the country on special assignment, Hickok prepared written reports for Harry Hopkins, Franklin D. Roosevelt's closest advisor, and the administrator charged with providing emergency relief during the Great Depression under the auspices of the Federal Emergency Relief Administration (FERA). Hickok had the ear of the most important advisor to the most powerful man in America in the 1930s, as well as the President's wife. Traveling through the most afflicted regions of the United States to gauge FERA's effectiveness, Hickok's letters to Hopkins provided a glimpse into the destitute lives the Work Progress Administration most famously captured in photos. In her reports from the South, Hickok's gloomy portraits captured the desperation of the moment, as well as the necessity of the federal government's unprecedented intervention in the economy and lives of average American citizens in the South. From the coalfields of the Appalachia to the cotton fields of Mississippi, letter after letter to Hopkins reaffirmed the massive scale of problems— illiteracy, poverty, starvation and malnourishment, poor sanitation, unemployment – plaguing Southern people.

Near the end of her trip, on June 6, 1934, Hickok stopped in the Alabama Tennessee Valley, where the newly christened Tennessee Valley Authority (TVA) had begun a multifaceted project to put able-bodied men back to work through one of the

grandest federally planned modernization schemes ever designed.¹ Having witnessed the human cost of casualties wrought by ecological destruction and the Great Depression, Hickok could not conceal her delight when she reached the Valley and relayed the positive news about the TVA. “Dear Mr. Hopkins,” she wrote, “a Promised Land, bathed in golden sunlight, is rising out of the grey shadows of want and squalor and wretchedness down here in the Tennessee Valley these days. Ten thousand men are at work, building with timber and steel and concrete the New Deal’s most magnificent project, creating an empire with potentialities so tremendous and so dazzling that they make one gasp.”² For the FDR administration, the TVA was a centerpiece of the New Deal social and environmental engineering legislation, intended to do more than respond to immediate economic crises. The TVA originated as a plan to heal a long impoverished region, provide a model to revitalize and economically, reinvigorate faith in progress and modernization, and bring humans and nature into proper balance. Indeed, for New Dealers, the Tennessee Valley truly represented the Promised Land, a playground for the dreams of Progressive conservationists seeking to experiment with a new vision for a united American nation.

Though Hickok had focused upon the social and economic amelioration that TVA jobs provided, for reformers invested in the fight to see the federal government build large dams on the Tennessee River, the TVA of the 1930s was synonymous with

¹The term “modernization scheme” is James C. Scott’s. See *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1999).

²Lorena Hickok, *One Third of a Nation: Lorena Hickok Reports on the Great Depression*, eds. Richard Lowitt and Maurine Beasley (Chicago: University of Illinois Press, 1981), 269.

environmental conservation. Although remaining invariably linked to New Deal economic programs, at its heart the TVA entwined conservation efforts with both social and environmental engineering to produce deliberate social and environmental changes. Damming the waters of the unruly Tennessee River and its tributaries, as the TVA did, effectually abated flooding in the region to remake the Southern landscape that had been scarred by years of ecologically destructive farming practices. Yet, this story of the TVA is as much an intellectual history of the conservation movement, as it applied to the TVA, and a history of the organization that sought to remake people's lives by delivering power from the river. The power of the river that once swept away homes on its destructive path during flood season, in turn, delivered power into Southerners' homes to affect social change.

Focusing on the Tennessee Valley Authority and rural electrification, this Master's thesis argues that the great energy paradigm shift of the twentieth century was contingent upon women and connected to their struggles for citizenship. First, I seek to reexamine conservation as a gendered concept. For example, by adopting power and natural resource conservation in the Tennessee Valley area as a national platform in 1924, the League of Women Voters (LWV) linked women's new voting power with citizenship advocacy. Second, I join conservation to public power projects in the New Deal period. Multipurpose dam development in the South melded civil engineering with social engineering in an effort to reposition women as primary consumers of energy. The act of

gendering power left an imprint on the female environmental imagination and shaped citizenship possibilities for Southern women of both races outside of the home.

The conservation movement by no means possessed singular goals, nor did reformers always agree upon the federal government's role in creating legislation that would govern the wise use and regulation of the nation's natural resources. The one binding trait among conservationists, however, was their belief in protecting nature against the abuses witnessed in the Gilded Age, where unbridled capitalism reaped and destroyed natural resources for personal, financial gain. Conservationists' concepts of protecting nature for future prosperity differed from preservationists' claims to protecting nature for its aesthetic quality. While conservationists believed in protecting nature against unmitigated abuses, preservationists contended that natural spaces ought to retain a wild element. Inherent in the conservationists' beliefs about proper utilization of natural resources, Progressive reformers promoted ideas about proper citizenship in the early twentieth century.

Reformers of the 1930s built upon the legacy of the Giant Power era by positioning women as the primary beneficiaries of household electrification, and their efforts to promote greater consumption of electricity created long-lasting effects. Giant Power advocates – often associated with the conservation movement – envisioned a giant pool of energy sources, placing particular emphasis on hydroelectric power, which would be integrated and dispersed at the national level. The Giant Power system would eliminate the monopolistic aspects of private power, and ensure equal access to power for

all Americans, rural or urban. While the Giant Power movement failed to take hold, the legacy of the movement produced lingering remnants among those entrenched in the conservation movement. Concern for the status of women, as well as the social construction of citizenry through conservation and electrification, carried over from the Giant Power movement of the Progressive Era and into the New Deal. These ideas about nature and gender deeply affected the very core tenets of the TVA. Domesticating the river's power and promoting electricity as the ultimate servant to women in the home necessitated the promotion of technologies to increase consumption. In the TVA, transforming power meant remaking the relationship between the state and its people to reconstruct a proper citizenry. In effect, it also constructed an idea about gendered citizenship that marked women as the primary consumers of the power that the river delivered.

Historical scholarship on the environment and the Progressive Era, most notably Samuel Hays' *Conservation and the Gospel of Efficiency*, has stressed that through their efforts to control nature, technocrats in the early twentieth century repositioned the state's interests above local control of natural resources in an effort to fight capitalistic and monopolistic exploitation of natural resources.³ While Hays' scholarship remains relevant, his analysis of the Progressive Era and conservation ends in 1920. After the First World War, the Progressive optimism infused in the movement's thought lost its

³ Samuel Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement 1890-1920* (New York: Atheneum, 1969).

zeal, as reformers who once believed science, technology, and modernization could affect positive change witnessed the devastation of modern warfare in Europe. However, conservation provides a unique case study to bridge reform efforts from the Progressive Era to the New Deal. New Deal conservationists incorporated Progressive Era notions of proper management of natural resources, as well as their contesting ideas about community and citizenship. What binds New Deal and Progressive reformers together is that for both, conservation carried moral connotations, and reforms in each era sought to guard natural resources from exploitations and manipulations that promoted individual monetary gain. To fully understand the prevalence of conservation in the New Deal requires returning to an earlier era when ideas about public ownership of natural resources crystallized, and thereby extending the lens through which the Progressive Era is historicized.⁴

The New Deal has been analyzed from many different segmented angles, yet no comprehensive analysis of environment and electrification exists. Environmental historians have begun to uncover the unique ways in which the ecological and economic crises of the 1930s highlighted a changing and complex relationship between humans and nature. Donald Worster's *Dust Bowl*, for example, examines the Great Depression as an ecological disaster stemming from the Dust Bowl in the Great Plains region. Arguing that New Dealers missed opportunities to radically reshape the economic structures that

⁴ Daniel Rodgers also argues that, in an international context, the Progressive Era extended into the New Deal. See *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge, MA: The Belknap Press of Harvard University Press, 1998).

affect the ways that Americans influence their natural surroundings, Worster's work reframes the Great Depression as both an economic and an environmental crisis. Though not restricted to the New Deal period, Richard White's *Organic Machine* details a similar story about conservation efforts to build hydroelectric dams such as those on the Columbia River in the West.⁵ White's work serves as a reminder that New Deal dam building consumed reformers and efforts to control the Tennessee River basin did not operate in isolation.

In her 2007 publication, *This Land, This Nation*, Sarah Phillips argues that the conservationists of the 1920s and 1930s sought comprehensive planning techniques to improve ecologically devastated agricultural lands.⁶ Thus, Phillips analyzes New Deal conservation policies as a whole and argues that cohesive and sweeping social projects intended to improve ecologically devastated lands were directed toward rural America in an effort to prevent mass rural migration. Phillips also sheds light on the diversity within the movement by covering the beginning in the 1920s, and tracking its changes through 1945. As U.S. entry into the war neared, Phillips maintains, conservationists' goals shifted from entrenching rural inhabitants on the farm by propping up ecologically marginal lands with federal aid, to solving rural and ecological problems through rural-to-urban migration. When it appeared small farmers could no longer remain propped up

⁵ See Richard White, *Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, 1996).

⁶ See Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press, 2004); Sarah T. Phillips, *This Land, This Nation: Conservation, Rural America, and the New Deal* (New York: Cambridge University Press, 2007).

with federal assistance, the FDR administration molded its goals to suit new needs: staffing industrial centers with fresh bodies from the farm, thereby solving the problem of rural poverty and soils stretched too thin. However, Phillips fails to contextualize the problems facing the South. Further neglect of a direct discussion the intersection of race and New Deal agricultural policies detracts from Phillips' analysis.

In *Nature's New Deal*, Neil Maher illustrates how the Civilian Conservation Corps (CCC) in the 1930s made a shift away from conservation possible, thus ushering in a renewed preservationist, environmental ethic. By asserting that the CCC fundamentally reshaped the way that men reimagined their place in nature, Maher offers readers a fresh perspective on the rise of the environmental movement.⁷ However, his analysis of the roots of environmentalism can be pushed only so far. If the CCC enabled men to reformulate ideas about their place in the natural world, it definitively cast aside their female counterparts. What, then, accounts for women's participation in the modern American environmental movement, if the explanation cannot be found in the CCC?

Other historians, such as Adam Rome, have speculated that the rise of suburbanization after the Second World War created physical and intellectual space for white middle class Americans to create divisions between humans and nature, and that the roots of this division can be traced to the Progressive Era and New Deal.⁸ Rome's study of the post-War era made enticing room for future discussion of women and the

⁷ See Neil Maher, *Nature's New Deal: The CCC and the Roots of the American Environmental Movement* (New York: Oxford University Press, 2008).

⁸ See Adam Rome, *Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (New York: Oxford University Press, 2001).

environment, yet scholars have shied away from tackling women's conservation and environmental reform efforts. Carolyn Merchant's work on gender and nature opened the door for environmental historians to discuss women, yet few have answered her call for further inclusion of female actors' stories in the field.⁹

Historians of gender and the South exploring this period, notably Melissa Walker and Lu Ann Jones, have examined the ways in which the New Deal impacted agricultural women, and how Southern agricultural women helped their families survive periods of dearth, respectively.¹⁰ Dealing with electrification, historians of technology like Ronald Kline and David Nye have introduced the concept of gendered technologies, and interpreted the different ways in which women acculturate technology for their own uses, while Ruth Schwartz Cowan's early work in the field helped dispel the myth that household technologies alleviated the burden of household work for women.¹¹ Rather than reduce household labor, electricity-dependent appliances designed to reduce women's drudgery in the home created more work and tied women to their domestic duties. While Elaine Tyler May argues that the children of the Great Depression, who came of age during the 1940s and started families in the early Cold War period, willingly reverted to traditional gender roles after the Second World War, examination of the New

⁹ See Carolyn Merchant, *The Death of Nature*

¹⁰ See Melissa Walker, *All We Knew Was to Farm: Rural Women in the Upcountry South, 1919-1941* (Baltimore: The Johns Hopkins University Press, 2002); see also Lu Ann Jones, *Mama Learned Us to Work: Farm Women in the New South* (Chapel Hill: The University of North Carolina Press, 2002).

¹¹ See Ronald Kline, *Consumers in the Country: Technology and Social Change in Rural America* (Baltimore: The Johns Hopkins University Press, 2000); David Nye, *Consuming Power: A Social History of American Energies* (Cambridge, MA: Massachusetts Institute of Technology, 1998); Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983). [CITE MAY]

Deal conservation efforts in the Tennessee Valley and beyond, highlights underlying structures that helped promote traditional roles for women in the home even as electric power transformed it. Conceptions of gender, electrification, and environment coalesce around the TVA. The TVA provides a unique case study to bridge the gaps between environmental history, the history of technology, and women's history.

The TVA's story begins in the battles over control of natural resources at Muscle Shoals, Alabama, along the Tennessee River in the post Civil War years. Chapter one examines the evolution of dam development at Muscle Shoals, Alabama from 1824 to 1932, in connection to and in tandem with the conservation movement. In traditional narratives of the conservation movement and of the Muscle Shoals controversy, men such as Gifford Pinchot and George Norris set the national agenda and waged war against private control over natural resources. However, Muscle Shoals also galvanized the attention of Progressive women like the LWV who sought to make their influence as newly enfranchised voters felt. At the heart of the debate over Muscle Shoals, reformers who advocated a federally owned and managed conservation plan in the Tennessee Valley over private corporations' interests in the region thereby laying the footwork for the TVA Act in 1933.

Chapter two begins by highlighting Franklin D. Roosevelt's efforts to harness hydroelectric power in the State of New York during his gubernatorial years, bringing a fresh perspective to the evolution of an organization that has so frequently been lumped

together with other New Deal emergency projects. The TVA was different. FDR saw the TVA as his chance to affect lasting change in the South, and not just as an emergency relief effort during the Great Depression. Yet, the Great Depression afforded Progressive Era reformers like Senator George Norris, FDR, and the LWV an opportunity to bring their multipurpose river basin conservation plans for the Tennessee Valley into fruition. Conservation in the Valley embodied more than environmental change, as reformers entwined the control of natural resources with providing electrical power to affect social change. Blending social and environmental engineering, the TVA sought to modernize life in the South and finally bring the South back into the federal government's fold.

The TVA's dams had the capability to repurpose Southern rivers and generate inexpensive electrical power with a social imperative, but the federal government needed to persuade people to consume the power it had offered. Chapter three highlights the story of the Electric Home and Farm Authority (EHFA), a lynchpin in the TVA's plan for greater distribution of power. In order to achieve the social successes that the TVA aimed to provide, it had to sell Southerners on the idea of consuming increasing amounts of power. The role of the EHFA was to sell women electricity-consuming appliances, and in the process it positioned women as the primary consumers of electricity in the home by offering low-cost, federally subsidized, and gendered appliances. Electricity promised to free women from the home in order to pursue activities that would broaden her horizons, yet the TVA's plans to increase the consumption of electricity hinged upon converting Southern women to the middle-class lifestyle that it promoted.

That this story takes place in the South is also significant. The Great Depression brought attention to inequities in the South, as well as to the crop lien system's ecological devastation of the Southern landscape and the pervasive economic hardships that rural Southerners – both black and white - faced. For FDR, the health of the nation's economy was intrinsically tied to the health of agricultural lands and rural peoples in the South. Nationalizing the South by harnessing one of its major tributaries to produce hydroelectric power, which, in turn, could be offered at low cost to residents of the Valley, therefore became a priority for New Dealers, and the TVA pushed toward the goal of creating a new, national citizen in the Tennessee River basin. In an era of increasing demand from African Americans for full rights as citizens, the TVA's goals of promoting a social realignment in the Southern rural areas also galvanized the attention of black leaders in the National Association for the Advancement of Colored People. New Dealers conceived of electric power as more than a commodity; power was a symbol of national modernization, of new conceptions of citizenship and the myriad ways that people ought to relate to the state.

Conservation efforts in the Tennessee Valley hinged on women's cooperation in advocating for the TVA but, more importantly, the success of reformers' plans were contingent upon women consuming the power the TVA's produced. In the early twentieth century, women pioneered arguments about the detrimental effects of poor, urban environmental quality, and constructed narratives about nature's role in producing proper citizenry at the same time that they also sought recognition as full citizens. After

the ratification of the Nineteenth Amendment in 1920, clubwomen, particularly the LWV, wielded their newfound electoral importance to advocate for conservation of natural resources. Giant Power advocates, including Progressive reformer and Country Life advocate Martha Bensley Bruere, idealized electricity as the great social equalizer that would bring the benefits of modern life to unduly burdened rural women.

Through the EHFA, a subsidiary organization of the TVA, the government subsidized the sale of household appliances to women consumers. Women's status as national citizens meant something specific to New Deal conservationists. If many envisioned electricity as freeing up more time for women to pursue civic engagements, modern electricity also bound women to the home and circumscribed gender roles. Electric appliances also produced a gendered dislocation from the natural world. Replacing nature's elements – water, wind, wood, and sun – with continual subscription to electric service removed the elements from many women's daily lives.

One of the more interesting paradoxes of household electrification was represented in the increasing invisibility of power. As power transmitted through wires and into refrigerators and stoves, it largely became invisible at the micro level, while at the macro level, dams, power plants, electric grids and transmission lines transformed landscapes. The invisibility of power in the home marked greater visibility of the divisions between women and nature after World War II. While the scope of this study ends with the onset of war and the death of the Electric Home and Farm Authority in

1942, the New Deal period produced an invisible form of power that created divisions between women's work and nature.

CHAPTER ONE

Muscling the Shoals: Modifying the Meaning of the Tennessee River, 1824-1932

As the Tennessee River makes its way out of the Appalachian Mountains just beyond the borders of Alabama, it bends and stretches from east to west before heading to meet the Ohio and upper Mississippi rivers. Past the Great Bend, a thirty-seven mile treacherous stretch of shoals, rocks, and rapids plagued travelers and inhabitants alike for two centuries. According to legend, Native Americans named the famed site Muscle Shoals, after expending vast amounts of human muscular energy traversing the rapids.¹² A century after its Indian peoples were exiled westward, the shoals came to embody the hopes of advocates of federal waterpower as a modernization solution for the nation's most laggard region.

Between 1824 and 1932, the debate over Muscle Shoals took as many twists and turns as the physical river running through the heart of the South. At its core, advocates of public ownership over nature's resources and all of her spoils pitted themselves against those who held fast to the belief that the government had no business going into business. Republicans squared off against Democrats, Southerner against Southerner, and conservationist against capitalist in this fight over control of the South's waters and, as the battle lines blurred, the river itself became more abstract. What remained clear was

¹² See Marguerite Owen, *Muscle Shoals and the Public Welfare* (Washington D.C.: Committee on Living Costs National League of Women Voters, 1929): 12. The actual origin of the shoals' name is a source of some debate. Some claim the bend at Muscle Shoals looks like a bicep, while others still believe "muscle" is a persistent misspelling of mussel, a shellfish found in the region.

the shared recognition that its cumbersome rocks and rapids possessed hydraulic power conducive to harnessing the power necessary for industrial purposes.

Waterway infrastructure projects at Muscle Shoals simmered long before conservationists set their sights on mining the Tennessee River's "white coal," as hydroelectric power development was known. Originating as a navigation improvement plan before the Civil War, Muscle Shoals gained later notoriety as a World War I fertilizer and nitrate factory. But in the early twentieth century, the Tennessee River also became a contested landscape for conservationists seeking to improve the nation's rivers. Ideas about the interplay between different natural resources, known today as interconnected ecosystems, informed the way that reformers sought to remake this southern river. Moreover, the region served as an early battleground for Progressive Era women seeking influence in the nation's political discourse after enfranchisement.

In his epic study of the early conservation movement, Samuel Hays reexamines conservationists' claims that they had sought to reorganize natural resources into public and private interests. Rather, the movement most closely associated with Theodore Roosevelt, he argues, developed "from the vantage point of applied science, rather than democratic protest."¹³ Valuing a Frederick Taylor inspired sense of efficiency and scientific management, Hays claims Progressives before 1920 systematized nature in a way that made specialists and government the representatives of the public interest, rather than individual citizens. Conservation in the Tennessee Valley took on a decisively

¹³ Samuel Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement 1890-1920* (New York: Atheneum, 1969): 2.

unique form, as the personalities of each reformer shaped and restructured the public versus private debate in distinctive ways. Due to their influence over natural resource public policy, early conservation thought yielded an interconnecting framework that aimed to recreate the Southern environment in the 1930s. Particularly in the case of Muscle Shoals, earlier arguments over the proper place of the government in the control of nature influenced New Deal decision-making.¹⁴

Yet, as a central and often overlooked component of the debate over Muscle Shoals, those embracing the banner of conservation extended beyond Hays' Progressive men. Progressive women, particularly, the League of Women Voters (LWV), chartered a different course for conservation, initially blending women's desire for the ballot with an environmental critique of early twentieth century urbanity. When the LWV joined forces with conservationists in the 1920s to advocate for complete watershed management, they promoted engineering methods to enact social change and applied their newly won citizenship to conservation advocacy. For conservation minded reformers like the LWV's Marguerite Owen, "the march of civilization and the progress of this country are told in the story of Muscle Shoals."¹⁵ Indeed, Progressive reformers – both men and

¹⁴ Richard White, *Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, 1995) details many similar struggles over the Columbia River basin, where reformers had to contend with a host of other powerful agencies, including the Bureau of Reclamation and the Army Corps of Engineers.

¹⁵ Marguerite Owen, *Muscle Shoals and the Public Welfare*, 11. Relatively little has been written about the faceless advocates in the League of Women Voters, and even less on the links between nature and women throughout US history. While Carolyn Merchant's work analyzes ideas about nature in colonial New England from a gendered and organic framework, her analysis remains strikingly void of historical female – or male – actors. See *Ecological Revolutions: Nature, Gender, and Science in New England* (Chapel Hill: University of North Carolina Press, 1990). On Progressive Era women of the Audubon Society, see

women – acted in tandem in the conservation battle over the waterways along the Tennessee River.

Marred by a hundred years of failed legislation, public and private supporters of river improvement attempted to remake the Tennessee River on several occasions to no avail. Navigation improvement plans for the river date to 1824, when Secretary of War John C. Calhoun urged Congress to build a canal to make the Muscle Shoals more passable for navy and commercial ships. The federal government, endowed with the constitutional power to regulate interstate commerce, and by proxy, waterway navigation, understood the imperative of shipping agricultural goods out of the Tennessee Valley. Within a few generations, Tennessee would raise “more corn and hogs than any other state,” and the region desperately needed markets for cotton.¹⁶ Muscle Shoals became an economic liability to development in the Valley as commercial steamboats bypassed the region, taking the Mississippi River instead.

After the Civil War, the tenant and sharecropping system produced prolific agricultural – not to mention social – problems. Row cropping, especially along hillsides, depleted soils, exacerbated economic concerns, and bred new ecological problems in the Valley. Equally damaging, the destruction of large tracts of forests to provide lumber for laying railroads in the New South caused fertile topsoil to wash down the river.

Jennifer Price, “When Women Were Women, Men Were Men, and Birds Were Hats,” in *Flight Maps: Adventures with Nature in Modern America* (New York: Basic Books, 1999).

¹⁶ Martha E. Munzer, *Valley of Vision: The TVA Years, The Living History Library* (New York: Alfred A. Knopf, 1969): 15.

Navigation improvement proved but one riparian concern in the South. Soil erosion increased the odds that flooding produced natural disasters, and with them, human tragedies. In the Valley, the flood of 1867 carried “homes, machinery, flatboats, laden with various products of the country, minus helmsmen or oarsmen, household and kitchen furniture, beds and clothing, etc.,” through the town of Watauga, according to one newspaper. A family trapped in the floodwaters cried for assistance, noted one reporter, but could not be saved.¹⁷

By 1890, the two small canals built with federal funds did little to abate flooding, and rapids flanking the canals at both ends continued to make river transportation difficult. Eight years would pass before Alabama Congressman Joe Wheeler introduced a bill to give a private Alabama company control over the Muscle Shoals site and the liberty to extract and sell hydroelectric power from it. The bill passed, but the company’s investors failed to erect a dam to harness the power of the river. The promise of electrical energy next attracted the private Tennessee Electric Power Company (TEPC), and in 1903 it obtained the support of Congressman Wheeler’s successor, William Richardson. The TEPC’s plans for a new dam promised to incorporate improvement of waterway navigation into the project. Richardson soon introduced a bill that would retain the federal title to the dam, lock, and reservoir created by pooling water behind the dam, while granting the TEPC a ninety-nine year, stipulation free contract to generate and sell

¹⁷ The story, as recounted in Munzer, first appeared in the Watauga newspaper in 1867. Similar stories were also found in the Knoxville and Chattanooga papers. See Munzer, *Valley of Vision*, 22-23.

hydroelectric power.¹⁸ President Theodore Roosevelt vetoed the bill, a move that reflected a mounting interest in natural resources and waterpower. Exerting federal jurisdiction over the waterways, the executive branch began to assert claims over both.

As navigation and private power company efforts on the Tennessee River floundered, a new group of like-minded Progressive Era reformers, known as conservationists, began to refocus their attention on water as a multipurpose natural resource, rather than solely as a transportation system. While Progressive Era conservationists were by no means monolithic, a few key players constructed ideas about nature in American lives, as well as the government's role in the natural world. Emerging as a leader among this new group, Gifford Pinchot - the nation's first professional forester - helped usher in a new strain of natural resource thought. Educated at Yale and in Europe's forestry schools, Pinchot took his first job in 1892 managing George Vanderbilt's Biltmore Estate in Asheville, North Carolina. Friend and fellow nature-seeker Frederick Law Olmsted, who designed the estate's forest, the "first piece of systematic forestry in the United States," recommended him for the position.¹⁹ By 1907, Pinchot served as Chief Forester for the Theodore Roosevelt administration. That year, he and his friends William McGee and Frederick Newell of the U.S. Geological Survey and Reclamation Service, along with the president, boarded a riverboat to Memphis to

¹⁸ Most of the information regarding the origins of the Muscle Shoals controversy appears in Judson King, *The Conservation Fight: From Theodore Roosevelt to the Tennessee Valley Authority* (Washington, D.C.: Public Affairs Press, 1959): 1-9; see also Donald Davidson, *The Tennessee: Volume II The New River, Civil War to TVA* (New York: Rinehart and Company, 1948): 175-194.

¹⁹ Gifford Pinchot, "How Conservation Began in the United States," *Agricultural History* (October 1937): 261.

discuss the idea of conserving natural resources with Governors from across the nation. In just a few days, Pinchot and his colleagues managed to convince the powerful men that conservation, a term introduced at the meeting, “was a fine new idea,” even if they disagreed on how to implement it.²⁰

Instrumental in giving the movement a name, Pinchot also played a significant role in promoting science to understand nature and helped establish a conceptual framework of interconnected ecosystems. Like others before him, Pinchot tied the health of forest ecosystems to the health of the nation’s waters.²¹ The problem of the preceding Gilded Age, he lamented, was that “a tremendous urge to get rich possessed our people,” and “the American Colossus was fiercely at work turning natural resources in to money.”²² Though the forest “was not the only natural resource with which the American people, through their Government, were obliged to deal,” Pinchot’s early association with forestry induced him to think about the nation’s natural resources holistically. For the earliest conservationists, “water, soil, grass, minerals, and the questions to which they gave rise, like erosion and irrigation, waterpower and navigation, coal and oil,” were all problems that needed addressing. “Something had to be done about every one of them,” Pinchot claimed, “but each was being dealt with as though it stood alone, with little or no relation to the others.” For Pinchot, “the idea was that all these natural resources which we had been dealing with as though they were in watertight compartments actually

²⁰ Pinchot, “How Conservation Began,” 263.

²¹ See George Perkins Marsh, *Man and Nature* (Cambridge: Harvard University Press, 1965).

²² Pinchot, “How Conservation Began,” 259.

constituted one united problem. That problem was the use of the earth for the permanent good of man.”²³ The exploitation of the nation’s natural resources by private capital, with little government regulation, united reformers around diverse set of issues.

Thus, for Pinchot and his like-minded associates, the federal government’s right to regulate the nation’s water resources usurped all others. “You may use the stream which runs by your door, but it is not your stream,” he contended, and therefore “the law consequently gives the state large powers over it, much larger than any powers the state has over land.”²⁴ The power of the state, both in matters involving natural resources and in regard to general human welfare, Pinchot maintained, “is growing not only because that growth is a necessity of our national existence, not only because we cannot otherwise protect the people against oppression by huge concentrations of wealth, but also because government units less than the Nation continually fail to do the things that the people need.”²⁵ A strong state necessarily prevented misuse of natural resources by countering the power of accumulated wealth in the hands of a select few.

Water systems represented but a small part of the conservation debate. Early conservationists like Pinchot also worked to integrate all parts of nature into comprehensive resource policy. “Every stream and every river system is a unit from its source to its mouth,” Pinchot conceded, but “policies dealing with watershed

²³ Ibid., 262.

²⁴ Pinchot, “Some Essential Principles of Water Conservation, As Applied to Mississippi Flood Control,” *American Academy of Political and Social Science* (January 1928): 58.

²⁵ Pinchot, “The State, the Nation and the People’s Needs,” *Annals of the American Academy of Political Science* (January 1927): 73.

conservation should be as comprehensive as the watershed itself.”²⁶ With President Roosevelt’s backing, reformers raised national consciousness about the ways in which the health of previously distinct groupings of natural resources were interlinked. More importantly, a national narrative about the role natural resources played in developing a good citizenship began to evolve. As Pinchot argued, “in its broad sense conservation applies to the handling of almost every human problem.”²⁷ Though it would require another Roosevelt presidency for the federal government to take concrete action toward multipurpose resource management, Pinchot and his associates constructed a platform for natural resource conservation.

While men like Pinchot were embroiled in natural resource policy on the national level, a different environmental discourse simultaneously developed inside the women’s suffrage movement. Though not typically associated with the conservation movement, Progressive Era women provided an interesting foil for their male counterparts.²⁸ Rather than focus on science, efficiency, or federal government natural resource policy, reform women concerned themselves with local, and often urban, environmental quality as one of their paths toward entry into national politics. Pushed to adopt issue-driven arguments for access to the ballot, women began with the health of the home and the neighborhood.

²⁶ Pinchot, “Some Essential Principles of Water Conservation,” 57.

²⁷ Pinchot, “How Conservation Began,” 259-262.

²⁸ For examples of Progressive Era women and the American environmental movement, see Robert Gottlieb, “Urban and Industrial Roots: Seeking to Reform the System,” in *Forcing the Spring: The Transformation of the American Environmental Movement* (Washington D.C.: Island Press, 1993). See also Theodore Steinberg, “Death of the Organic City,” in *Down to Earth: Nature’s Role in American History* (New York: Oxford University Press, 2002). On municipal housekeeping and urban environmental sanitation services, see Martin Melosi, *The Sanitary City: Environmental Services in Urban America from Colonial Times to the Present* (Pittsburgh: University of Pittsburgh Press, 2008).

In their espousal of a proper political and environmental balance, turn-of-the-century suffragists entwined the dual goals of full citizenship and environmental advocacy. This, in turn, served as a launch pad for women's environmental voice in national politics after enfranchisement.

Notable reformer and suffragist, Jane Addams founded Chicago's Hull House settlement in 1889. In her early twentieth century city, Addams saw a need for reform and relief, particularly among the new waves of immigrants from Europe. The settlement house movement, according to Addams, "perhaps, has represented not so much a sense of duty of the privileged toward the unprivileged," but rather "a desire to equalize through social effort those results which superior opportunity may have been the possessor."²⁹ Concentrating on urban areas that absorbed many new, incoming Americans, Addams did more than give aid. She analyzed the urban environment that caused such despair, and in doing so invoked a maternal argument about nature that easily translated into the conservation language women reformers adopted in subsequent generations. "Affairs for the most part are going badly in these great new centres," Addams wrote, "in which the quickly congregated-population has not yet learned to arrange its affairs satisfactorily."³⁰

Among the many detrimental issues facing the modern city, Addams insisted that environmental quality in the urban areas deserved greater attention. Claiming that

²⁹ Jane Addams, "A Function of the Social Settlement," *Annals of the American Academy of Political and Social Science* (May 1899): 33-34

³⁰ Addams, "The Modern City and the Municipal Franchise for Women," in Barbara Stuhler, ed., *For the Public Record: A Documentary History of the League of Women Voters* (Westport, CT: Greenwood Press, 2000): 12.

“unsanitary housing, poisonous sewage, contaminated water, the spread of contagion, adulterated food, impure milk,” and air pollution plagued America’s urban landscapes, Addams identified women as “those who in the past have at least attempted to care for children, to clean houses, to prepare foods, to isolate the family from moral dangers.” Addams then drew on women’s traditional role as housekeepers to promote extending the vote to women. “Logically their electorate should be made up of those who can bear a valiant part in this arduous contest,” she ventured. Women needed the ballot, she asserted, “because all these things have traditionally been in the hands of women, if they take no part in them now they are not only missing the education which the natural participation in civic life would bring to them, but they are losing what they always had.”³¹ Improving the tangible urban environment made it safer for families and the public. As mothers and housekeepers, women were more attentive to issues of local environmental quality and, as such, best suited to tackle the job of improving the environment within a democracy.

For Addams, “that wise old dame, Nature,” was indeed the “foundation of all great human relationships, political as well as social.” Polluted urban environments proved detrimental to the human spirit. Addams asserted it an obligation of modern government to provide urban outdoor recreation areas in cities where overcrowding in tenement houses prevailed. Characteristic of Progressive ideology, she wrote, “the scientists tell us that the imaginative powers, the sense that life possesses variety and

³¹ Addams, “The Modern City and the Municipal Franchise for Women,” 12.

color, are realized most easily in moments of pleasure and recreation.”³² Addams believed nature, as a civilizing agent, presented opportunities to overcome the kind of problems she saw daily in her Chicago ward, and envisioned outdoor recreation and the humanizing power of nature as a solution to the evils of urban life. In this belief, she was not alone. Olmstead too theorized about the rejuvenating powers of nature, and set to work constructing urban parks – most notably New York City’s Central Park - to introduce “wild into the heart of the city.”³³ Just as Pinchot argued that conservation could solve all human problems, Addams saw outdoor facilities as “centers in which a higher type of citizenship is being nursed” that also provided for “the establishment of just relationships.”³⁴ Though Addams did not engage with the discourse on natural resource conservation that had been brewing among Progressive men at the national level, her strain of environmental thought served to influence later generations of women voters. It would not be long before newly franchised women made their official foray into national water conservation politics. In the meantime, World War I provided reformers with an unexpected opportunity.

In his continued advocacy for the wise use of, and federal jurisdiction over, nature’s resources, Gifford Pinchot was in growing company. Senator George W. Norris

³² Addams, “Recreation as a Public Function in Urban Communities,” *American Journal of Sociology* (March, 1917): 615.

³³ Anne Whiston Spirn, “Constructing Nature: The Legacy of Frederick Law Olmstead,” *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W.W. Norton and Company, 1996): 92.

³⁴ Addams, “Recreation as a Public Function,” 619.

of Nebraska seized legislative opportunities to advance the nation's development of waterpower as well.³⁵ Norris, a part of the Public Lands Committee since his induction into the Senate in 1913, later described his entrenchment within the federal waterpower camp as accidental.³⁶ If, as a Nebraskan, he had no direct political claim in the matter at Muscle Shoals, Norris nonetheless became the most ardent and vocal proponent of government development, control, and dissemination of hydroelectricity in the Tennessee Valley.

Norris, a friend of Sir Adam Beck of the Ontario Hydro-Electric Commission, understood the issue better than any other member in Congress did and he never wavered as the legislative figurehead of the movement. He had cut his teeth on conservation legislation involving the Hetch Hetchy dam in California in his inaugural year in Congress. In this fight, those who believed that nature's bounty could be harnessed and developed in a way that maintained resources for generations to come contended with those who held that nature ought to be left undisturbed. Preservationists, represented by John Muir's Sierra Club, sought to keep nature pure and wild by backing the "Save Hetch Hetchy" campaign and Western clubwomen had supported the cause. Norris, ignoring the thousands of pleas "from women's clubs...women of the highest character who had been deceived," and defeating private "power interests hiding behind well-meaning

³⁵ King, *The Conservation Fight*, 63.

³⁶ George W. Norris, *Fighting Liberal: The Autobiography of George W. Norris* (New York: Collier Books, 1961): 245.

nature lovers,” thwarted preservationists’ efforts to protect nature.³⁷ For the elite group of women involved in the Hetch Hetchy campaign, the preservation of nature in its pure and aesthetic form had become an inherent goal, marking a class division between them and women, like Addams, who recognized the usefulness of conservation. Competing definitions of nature had been proffered at Hetch Hetchy, but the conservationist insistence on nature’s usefulness had prevailed.

Until the First World War, however, Alabamians spearheaded most of the propositions to develop power at the Muscle Shoals site. Native Southerners like J. W. Worthington, who worked first for the Northern power company the Sheffield Company and later for the Alabama Power Company, attempted in vain to gain controlling interest over the contested waterway for the production of nitrates, which required vast amounts of electrical energy.³⁸ America’s involvement in World War I meant that meeting wartime needs came to trump issues of flood control and navigation at Muscle Shoals. As war broke out in Europe in 1914, President Woodrow Wilson hurriedly scoured for potential nitrate and ammonium phosphate processing locations to produce ammunitions. US reliance upon foreign nitrates, primarily in the form of Chilean guano, proved undependable in seas laden with German U-boats. Fighting a war abroad prompted a growing number of advocates to begin paying attention to the production of hydroelectric power for the creation of munitions. Federal sights landed on Muscle Shoals, and not by coincidence. When Alabama Governor Emmett O’Neal heard that President Wilson was

³⁷ King, *The Conservation Fight*, 42.

³⁸ *Ibid.*, 9.

searching for an ideal location for a new munitions factory, he called attention to the Tennessee River. “We present Muscle Shoals, not as a state, or southern, but as a national asset,” O’Neal remarked to the press. As a national asset, Muscle Shoals presented an opportunity of securing an infusion of federal dollars for the South.³⁹

Muscle Shoals promised to meet the energy demands of creating synthetic nitrates. The National Defense Act of 1916, introduced by Senator Ellison D. Smith of South Carolina, known as “Cotton Ed,” sanctioned government production of nitrates for munitions. More surprisingly, the bill gave the federal government the power to construct and operate any plant without interference or assistance from private capital. According to Washington insider and lobbyist Judson King, Smith’s move was a “bombshell” in Congress. The Senator “was a cotton planter who had taken no part in the waterpower controversy. His move was a surprise. He was no advocate of public power, nor was he under any political obligations to power companies.” Aside from military preparedness in the event of American entry into the war, Smith’s motivation, King suggested, was cheap fertilizer for the Southland. Yet, the Senator’s intervention also represented an unusual reversal of the South’s commitment to safeguarding states’ rights against the intrusion of federal authority. Thus, Smith’s fellow Southern colleagues assailed him, branding him a radical who ought to “apologize to [Eugene] Debs and every other socialist that he has ever criticized during his whole political

³⁹ Owen, *Muscle Shoals and the Public Welfare*, 17.

career.” Senator Harwick of Georgia further suggested that, as a result of Smith’s bill, Thomas Jefferson “would turn over in his grave in holy horror.”⁴⁰

As boon to Norris, President Wilson signed the Smith bill and drafted Muscle Shoals for the war effort in September of 1917. Seeing the promise of future public hydroelectric power generation in Muscle Shoals, reformers declared, “electric power for munitions and man power for armies were the country’s great needs. Its man power could be drafted. Its water-power must be developed. A new chapter at Muscle Shoals was beginning.” Nearly ten years after Wilson’s decision, LWV stalwart Marguerite Owen proclaimed, “at last, the drop in the river’s bed of almost 140 feet was an asset to the nation.”⁴¹ Even more importantly for conservationists, the original language in the bill that authorized construction along the Tennessee River in Alabama deeded the property to the federal government in perpetuity, barring private capital from purchasing or operating any other industry on the site. Had the language of the bill not deliberately barred Congress from selling its Alabama asset, Owen observed, “there would be no chance to continue the development of a great natural resource for the benefit of all people, to turn a war investment into a peace-time asset, and to operate a tremendous hydro-electric power project with the general welfare as the sole concern.”⁴²

Though the construction of the munitions plant and hydroelectric dam came too late to affect the war effort, conservationists celebrated the decision. A small victory had

⁴⁰ King, *The Conservation Fight*, 62-63.

⁴¹ Owen, *Muscle Shoals and the Public Welfare*: 16, 18.

⁴² *Ibid.*, 11.

been won. Norris, determined to see a multipurpose river basin development come to fruition, continued to tether his hopes to Muscle Shoals and advocate federal control over the waterways, hydroelectricity, and damming for flood control. “From the first gun to the last,” the Republican Senator from the Midwest proclaimed, “there was that irreconcilable conflict between those who believed the natural wealth of the United States best can be developed by private capital and enterprise, and those who believe that with certain activities related to natural resources only the great strength of the federal government itself can perform the most necessary task in the spirit of unselfishness, for the greatest good to the greatest number.”⁴³ Before more headway could be made, however, Norris and supporters of government-sponsored water management had to contend with a famous Northern automobile manufacturer who had helped to frame the debate on the side of the private capital and enterprise.

Surprisingly, perhaps, in the immediate postwar years, neither business enterprise nor the government followed through on development plans for the rocky waterways along the Tennessee River, despite avowed interest in the site. In 1921, Henry Ford offered five million dollars to purchase the existing Muscle Shoals infrastructure. Taxpayers had spent nearly eighty-two million dollars developing three incomplete munitions and power plants in Alabama and Ford said he would put the government’s investment to good use. This prompted widespread speculation regarding his intentions, but the paltry bid on the table, which traded cash for a hundred year lease on the Muscle

⁴³ Norris, *Fighting Liberal*, 246.

Shoals facilities offended many in Congress. It also heightened the battle between those in the Norris camp and those in favor of private industrial development of natural resources.

One anonymous author went so far as to threaten Norris with death if the Ford deal amounted to naught. A letter sent to the *Birmingham News*, signed by “Poor People Friend,” attacked Norris because he sought to prevent “Henry Ford from helping out the South and take the idle plant off the people and put it in operation for the intrust of the farmer to finish the dam and operate the plant.” Concluding that Norris’ actions were detrimental to the South, the author asserted that, “the time has come when something has got to be done. It is impossible for you all to get by without death.”⁴⁴ Ford’s offer eventually passed the House, but it failed in the Senate. The auto magnate then withdrew it altogether. Alabamians and Southerners alike expressed dismay. The promise of the Ford proposal had been dangled as an opportunity to increase “the potential for southern enterprise to compete with northern or eastern enterprise on something like equal terms.”⁴⁵ Despite their boosterism to the contrary, the northern region’s industrial prowess still piqued the New South’s pride.

Conservationists also looked beyond the nation’s borders in the postwar years. Believing harnessing waterpower an important solution to conserving America’s coal

⁴⁴ U.S. Federal Bureau of Investigation, “Letter to Thomas Kilby, *Birmingham News*, July 22, 1922,” George Norris File. [Emphasis in original.]

⁴⁵ Davidson, *The Tennessee*, 184.

stores, reformers in the 1920s enviously eyed the birth of a new kind of water-centered public utility in Canada. Pinchot, Norris, and Pinchot devotee Morris Llewellyn Cooke, saw the Ontario Hydroelectric Power Commission (HEPC) as a model for domestic development due to the way it combined natural resource management and social engineering. Founded in 1906 by Ontario Premier James P. Whitney at the urging of London (Ontario) mayor Sir Adam Beck, the HEPC provided publicly owned and operated hydroelectric power to municipalities across southern Ontario at cost. Like Muscle Shoals, Niagara Falls had long attracted the attention of energy suppliers. But the HEPC was unique. “That more than 380 municipalities acting cooperatively have invested about \$250,000,000 in a common undertaking for the distribution of electrical energy to their citizens,” Beck remarked, “and that it has accumulated large financial reserves while supplying electric light and power over extensive areas at unprecedentedly low rates are facts which have attracted world-wide attention.”⁴⁶ Claiming that “all the small towns from Niagara to Windsor (250 miles away) have access to power on relatively equal terms,” Pinchot paid homage to Canadian industrial development in small towns like Brantford, where “the community mind has a fair chance to grow up and function – and are on somewhat the same footing as the larger centers.”⁴⁷ As the first state-owned, public power utility in the world, the HEPC served as a model for American conservationists who clamored to bring Giant Power to the people.

⁴⁶ Sir Adam Beck, “Ontario’s Experience,” *The Survey: Graphic Number* (1 March 1924): 585.

⁴⁷ Pinchot, “Giant Power,” *The Survey: Graphic Number* (1 March 1924): 562.

Giant Power meant different things to different people, but above all, as advocate Robert Bruere averred, it meant the “conversion of all of our primary energy resources into electricity and their pooling into regional systems which will then be integrated into a nation wide federation of systems.”⁴⁸ In short, Giant Power, through a variety of energy sources, would eliminate overlaps in the electrical transmission system, ensure equal access to coverage for all Americans regardless of geographic location, and somehow prevent electric company monopolies. When the term Giant Power first became a part of conservationist language, advocates imagined that a new transmission and distribution system could involve private capital. Public ownership was an option, but only if private capital proved unwilling or incapable of performing the task of providing equal coverage, at low rates, for all. The Giant Power question frequently hinged upon waterpower as a solution to conserving coal resources. By 1924, however, supporters differed on the question of public ownership of the federation of electrical systems. They also held divergent opinions on hydroelectric power’s ability to provide enough power, over a long enough stretches of time, to make a marked difference in the conservation of coal. Like the conservationists themselves, Giant Power advocates represented diverse opinions, but all held fast to their belief that rural and urban people alike were entitled to consume energy at equal rates. Indeed, in their vision, electrical dissemination could be the great social equalizer.

⁴⁸ Robert Bruere, “Pandora’s Box,” *The Survey: Graphic Number* (1 March 1924): 560. See also Thomas P. Hughes, *Networks of Power: Electrification in Western Society 1880-1930* (Baltimore: Johns Hopkins University Press, 1983): 300-313.

This conviction, in itself, was not new, and it held particular significance when applied to the South. Policy shapers in the United States had turned their attention to the social and economic problems posed by the Southern agrarian regions in the early twentieth century. Hoping to thwart the increasingly problematic rural-to-urban migration, President Theodore Roosevelt commissioned a study of “county life” in 1909.⁴⁹ To redress the problems unearthed by the Report of the Commission of Country Life, Congress passed the Smith-Lever Act in 1914. The architects of the Smith-Lever Act intended to build a bridge between the newly formed U.S. Department of Agriculture and land-grant colleges by providing agricultural extension services to the rural countryside. Extension agents seeking to scientifically modernize rural homes life directed their efforts in the South toward women through home extension projects. According to LuAnn Jones, agrarian reformers “considered women to be the linchpins in the creation of the rural New South of prosperous farms, clean and comfortable homes, healthy children, and vibrant communities.”⁵⁰ Electricity, they thought, would slow rural-to-urban migration, and bring Southern homes into the twentieth century’s technological fold. By 1924, Morris Cooke regarded electrification projects collectively as “a study of the social needs; we need to find out how power can be made to contribute to the fullness of life. We believe that electrical technology has advanced to a point where the use of current can be made so inexpensive as to revitalize the whole social

⁴⁹ Liberty Hyde Bailey et. al., *Report of the Commission On Country Life, With an Introduction by Theodore Roosevelt*, (New York: Sturgis & Walton Company, 1917): 9-10.

⁵⁰ LuAnn Jones, *Mama Learned Us to Work: Farm Women in the New South* (Chapel Hill: University of North Carolina Press, 2002): 15.

fabric.” As Pinchot, an unsurprising proponent of Giant Power, put it, engineers may debate kilowatt-hours and proper transmission lines, but “*we are studying the social needs first.*”⁵¹

Women reformers also frequently discussed the Canadian engineering feat as an example of what could be accomplished south of the border in terms of the social consequences of bringing power to the people. After a visit through the Golden Horseshoe – the rich agricultural land encircling the lower Great Lakes in Ontario, which derived its name from the golden color of the tobacco leaves that matured in late August – Martha Bensley Bruere marveled at how different rural life was for Ontario women, compared to their American sisters. In the town of Woodstock, Bensley Bruere remarked that residents “were living in cleanliness and apparent decency. They were living with domestic ease through a plentiful supply of power at low enough rates so that they could use as much of it as they chose.” She also observed that Ontario women did not employ household servants, as “most women did their own work. They had everything to do it with,” once the power lines went up.⁵²

Upon concluding her visit, Bensley Bruere met with a farm wife in Norwich, a tiny village roughly situated in the middle of the Golden Horseshoe. “What are you and your neighbors going to do with the free time Hydro gives you,” Bensley Bruere asked her. “Something we like better than housework, I should hope. What do *you* do?” the

⁵¹ Morris Cooke, “A Long Look Ahead,” *The Survey: Graphic Number* (1 March 1924): 601; Pinchot, “Giant Power,” *The Survey: Graphic Number* (1 March 1924): 561. [Emphasis in original.]

⁵² Martha Bensley Bruere, “Following the Hydro,” *The Survey: Graphic Number* (1 March 1924): 591 – 592.

woman retorted. Bensley Bruere concluded, “that’s what I found all through the Hydro country – farmer’s wives doing something they like better than housework. In one case a flower garden lovely even in October; in another case singing lessons; again it was visiting about or joining a women’s club in the village; sometimes it was just time to rest.”⁵³ Clearly, Bensley Bruere perceived that electricity contributed to fuller citizenship for rural women because it afforded them leisure time and the opportunity to cultivate personal growth.

To be sure, the household electrification process began around the same time in North America; in this, Ontario was not exceptional. Yet, early electrified regions in the United States tended to be urban, as in the case of New York City or Chicago, or situated near natural gas reserves that fuelled lighting stations, like Muncie, Indiana.⁵⁴ The dissemination of power into rural households lagged far behind their well-lit city dwelling neighbors for various reasons. Complications in running long transmission lines to an expansive countryside made rural electrification a costly venture for private enterprise, a cost that they, in turn, passed on to the consumer. By the 1920s, the technological complications of delivery and transmission had dwindled, but private power corporations begrudgingly provided rural areas access to their lines. Even when they did grant rural customers access, the customer paid inflated per-kilowatt rates along with the cost of maintaining the physical infrastructure necessary to provide power.

⁵³ Bensley Bruere, “Following the Hydro,” 593.

⁵⁴ On the electrification of Muncie, Indiana, see David Nye, *Electrifying America: Social Meanings of a New Technology* (Cambridge, MA: The Massachusetts Institute of Technology Press, 1990): 1-28.

Due to private power companies' ineffectiveness in delivering electricity to the rural countryside and their reluctance to absorb the cost of the infrastructures needed to disseminate power, only thirty-five percent of all rural Northern homes consumed electricity in 1930.⁵⁵ An even more startling discrepancy in the household electrification rates between the Northern and Southern regions existed. According to the US Census Bureau, only four percent of rural Southern homes had electricity, and even the calculation of this rate could indicate a statistical inflation.⁵⁶ The South's poverty mattered. As tenant farm wife Sarah Easton of Wilson, North Carolina explained, "the house is wired for lights but we can't never afford it."⁵⁷ Thus, any prospective remedy had to incorporate solutions for increasing their purchasing power so they could pay for the service. One Giant Power advocate decried the wasted opportunities in more dramatic terms. "Power equal in labor energy to more than 75,000,000 men – over five times the Negro population of the United States – is idle in the streams and rivers of the South, because undeveloped." Vast hydroelectric power potential, combined with the fossil fuel sources in the South should have made the region into an industrial rival of England, "yet today, in proportion to population served, no other section of the United States is so poorly served in the distribution and use of electricity."⁵⁸ The social

⁵⁵ While this rate is calculated for the Northeast region, rates were similar in the Pacific West, and Mid West though the Northeast held the highest rate of electrification in rural homes.

⁵⁶ U.S. Bureau of the Census, "Fifteenth Census of the United States – 1930 – Agriculture" *Volume IV: General Report, Statistics by States*.

⁵⁷ "You're Gonna Have Lace Curtains," *These Are Our Lives* (New York: W. W. Norton and Company, 1939): 9.

⁵⁸ Marion M. Jackson, "Idle Slaves in the South," *The Survey: Graphic Number* (1 March 1934): 613.

ramifications of underdevelopment in the South continually irked those who saw the promise of electricity held for poor whites. “Great reaches in waterpower and natural resources are marked by lightless homes and primitive industrial methods,” contended another Southerner, “producing illiteracy and stagnation, where Americans of the purest strain are living under conditions approximating those of the Middle Ages.”⁵⁹

White supremacy further complicated the Southern electrification issue and tended to obscure access to power. While some white tenant farmers had home electrical wiring but could not afford service, many African American tenant farmers working for white landowners confronted more rudimentary problems. North Carolina African American home extension agent Annie Welthy Holland often found her work among rural African Americans at a major disadvantage compared to her white colleagues. Before Holland could disseminate information on the latest sewing, canning or food preservation techniques that electricity made easier, she first had to negotiate with white landlords resistant to making basic structural and sanitation improvements to black tenant homes.⁶⁰ Similarly, in Holly Grove, Arkansas, an African American tenant farmer’s wife complained of the lack of screens on her home’s windows because, “pesky flies and mosquitoes is so bad. I said sump’n bout it to Mr. Sparrow early dis spring, but I guess he forgot...de landlord is landlord, de politicians is landlord, de judge is landlord, de

⁵⁹ Jackson, “Idle Slaves,” 614.

⁶⁰ Jones, *Mama Learned Us to Work*, 140.

shurf is landlord, ever'body is landlord, en we ain' got nothing."⁶¹ If white landlords considered window screens a luxury for African Americans, electrification of black residences was unthinkable.

Giant Power proponents also criticized private power's ineffectiveness, particularly in the South, to provide rural customers with access to electricity. The Carolina Power and Light Company (CP&L), established in 1908, claimed in the 1920s that "North Carolina ranked high throughout the nation in hydroelectric development, and both businesses and domestic customers gave promise of needing every kilowatt-hour."⁶² However, the textile industry consumed the largest amounts of energy in North Carolina, not domiciles. Joseph Hyde Pratt, director of North Carolina's Geological and Economic Survey, reported that while the electrical infrastructure in the southeast as a whole created over a million horsepower of energy, overwhelmingly from direct sources of waterpower, over eighty-four percent of this energy went straight into the cotton mills.⁶³ As the textile industry began to cut shifts in the 1920s, the few domestic customers who did receive service "began denying themselves household appliances that steadily had been gaining favor," and increasingly more customers with household wiring no longer purchased power, opting instead for kerosene lamps. Beginning in 1929, CP&L's total number of

⁶¹ "Ain't Got No Screens," *Such as Us: Southern Voices of the Thirties*, eds. Tom E. Terrill, Jerrold Hirsch (Chapel Hill: The University of North Carolina Press, 1978): 55.

⁶² Jack Riley, *Carolina Power & Light Company, 1908-1958* (Raleigh: Edwards & Broughton Company, 1958): 211.

⁶³ Joseph Hyde Pratt, "In the Southern Appalachians," *The Survey: Graphic Number* (1 March 1924): 611.

customers declined drastically for three consecutive years.⁶⁴ Faced with this challenge, CP&L lowered rates, but neither enticed new customers, nor stemmed an already declining number of energy consumers.

In time, even the most ardent states' rights supporters in the South would come to request federal intervention once the Great Depression settled over the land, and the federal government faced a conundrum at Muscle Shoals that offered no easy solutions. It was now the proud owner of two unusable canals, one inoperable hydroelectric munitions plant, and two unfinished dams. On one hand, the federal government had proven itself inept at executing plans for the Muscle Shoals site during the war; on the other, the owners of Southern private power companies displayed callous attitudes toward those rural Southerners desiring affordable household electricity.

George Norris had his work cut out for him if he planned to rescue attempts to create a new river, and a new social fabric, in the Tennessee Valley. Before the decade's end, he found allies in a surprising camp: newly enfranchised women in the LWV who sought to make their status as full citizens and influence as civic housekeepers count. If, as Owen remarked, the story of the nation's progress was told at Muscle Shoals, the LWV reframed it as a one of the necessity of women's conservation advocacy. Much like Addams' earlier contextualization of the environment within a maternal framework, the LWV pursued conservation and electrification through a gendered lens. In the 1920s,

⁶⁴ Riley, *Carolina Power & Light Company*, 212.

aligning with the national conservation debate beyond the municipality became a significant part of the LWV discourse about citizenship. Discarding Addams' brand of local and urban environmental advocacy, but working within the lines that she had drawn that highlighted the importance of women's voices in the cause, the newly enfranchised women of the LWV joined the chorus in national politics advocating for Norris' conservationists plan for Muscle Shoals.

Though they would come to embrace Norris' national conservation policy as it specifically related to the Tennessee Valley area, two important gendered issues the attracted the attention of LWV reformers, and prompted them to take action. First, the LWV saw the incomplete Hales Bar dam at Muscle Shoals as an opportunity to increase agricultural output and bring more food to the average family's table at lower costs because the former munitions plant could be converted into a peacetime fertilizer factory.⁶⁵ Second, the vast amounts of federal dollars spent on incomplete conservation projects irked the group. In a letter to the LWV President Belle Sherwin, Adele Clark of Virginia declared that she felt "very strongly that the League should do what it can to see that this great natural resource in which the government has invested so much money shall be developed for the public interest," adding that, "the future of the South, to a large degree, depends on the proper use and development of Muscle Shoals." Referring to the region's traditional aversion to federal interference, Clark conceded, "of course, it is a hot

⁶⁵ Owen, *Muscle Shoals and the Public Welfare*: 40-41.

political issue in part of the South.”⁶⁶ Perhaps that only enhanced the sense of urgency the LWV felt in seeing the job begun at Muscle Shoals through to completion. As early as 1921, Alabama’s Colbert County LWV branch, home to Muscle Shoals, adopted a resolution in support of proposed attempts to rescue the failing project, “in the interest of American agriculture,” and “in the interest of conservation of coal through the use of water power.”⁶⁷ The national organization soon followed its lead and referred to the Committee on Living Costs for study on “the most effective utilization of the electric resources of the country from the standpoint of the public welfare.”⁶⁸

Waste, especially government waste, and inefficiency troubled the LWV, particularly Marguerite Owen. Owen, a South Dakota native and the new Legislative Secretary of the LWV, immersed herself in studying the conservation issue. The report that she prepared for the group determined that the problems at Muscle Shoals were not insurmountable, and presented the site as an opportunity rather than an obstacle. Detailing the methods used to produce nitrates, and the great potential hydroelectric energy held for the citizens of the Valley, she conceded “the weak spot in Muscle Shoals as a power project is that the flow of the Tennessee River is exceedingly variable.” But she contended the benefits from a “constantly available” primary power source were invaluable. What was needed, in her opinion, was not merely the completion of the existing river infrastructure, but new and bigger dams, encompassing the entire

⁶⁶ “Adele Clark to Belle Sherwin, March 20, 1926,” *For the Public Record*, 156.

⁶⁷ “Resolution of the Colbert County (AL) League of Women Voters,” *For the Public Record*, 151.

⁶⁸ Owen, *Muscle Shoals and the Public Welfare*, 6.

watershed; for only then could the river be tamed and the existing incomplete projects be salvaged and designed to function properly. Sounding increasingly more like Pinchot, Owen argued that the only way to tackle the problem at Muscle Shoals was to overhaul the existing the project and build a comprehensive dam system throughout the entire Tennessee Valley. “When the war ended,” she wrote, “Muscle Shoals was left as a legacy to challenge the wisdom of the future.”⁶⁹ Reinforcing the importance of seizing the opportunities presented at Muscle Shoals, Owen said, “to women citizens whose first interest in Muscle Shoals was prompted by a concern for safeguarding an important public investment it has now become an introduction to the study of related problems of the highest interest.”⁷⁰ Her report to the LWV recommended the endorsement of Norris’s plan.

As Owen’s report made its way back to the convention, a Mrs. Miller of the Pennsylvania LWV questioned the wisdom of aligning with Norris. Not all women at the national level endorsed the idea of a publicly owned and operated electrical infrastructure to harness the tides at Muscle Shoals. Noting that the Norris bill presupposed government control, Miller grappled with the “very definite economic principle whether the Government will own and operate.” In response, the chair of the Committee on Living Costs stated that the committee “stands for Government ownership and Government operation with a Muscle Shoals corporation.”⁷¹ After a quick debate, the

⁶⁹ Ibid., 10-11.

⁷⁰ Ibid., 9.

⁷¹ “League Opinions on Muscle Shoals,” *For the Public Record*, 152.

national outfit voted to support public power. Norris and the conservationists had gained valuable supporters in the fight against those who endorsed private power. However, because President Herbert Hoover stood firmly against a public power option, the tides would not turn until a new president arrived in the White House.

As the battle over Muscle Shoals raged into the 1930s, the two sides remained unwilling or unable to compromise. Certainly, the federal government had set few precedents for the regulatory protection or federal development of America's water resources before the Muscle Shoals controversy, yet unfinished projects left the Tennessee River in limbo. If history, as the Progressives saw it, was the "story of the stages through which man and nature have made each other over almost beyond recognition," it is hard to tell who held the upper hand at Muscle Shoals.⁷² By 1932, incomplete development of the Tennessee River had neither functionally remade the landscape as conservation advocates had hoped, nor produced the flourishing society some insisted hydroelectric development would bring. Yet, after years of partial attempts to recreate the Valley, the Tennessee River was about to take on a new form and new purposes. Indeed, Democratic nominee Franklin D. Roosevelt had spent his years as Governor of New York pining to bring Niagara Falls' hydroelectric power to his state. With an eye toward Muscle Shoals, the Democratic candidate saw the same potential in the Tennessee River as George Norris and Marguerite Owen.

⁷² Joseph Hart, "Power and Culture," *The Survey – Graphic Number* (1 March 1924): 625.

CHAPTER TWO

“More Power to You”:
Conservation, Power, and Social Engineering in the Tennessee Valley, 1928-1939

Standing at Oregon’s Bonneville Dam on a warm August day in 1934, President Franklin Roosevelt praised Governor Julius Meier for efforts undertaken to manage the Columbia River. “While we are improving navigation,” the President remarked, “we are creating power, more power, and I always believe in the old saying of ‘more power to you!’”⁷³ FDR employed the dual meaning of the word power in his remarks at Bonneville Dam; indeed, throughout his life in politics he favored the word power when referring to hydroelectrical currents. With his jocular reference to delivering more power to the people, the President bespoke his true intentions behind the 1930s obsession with dam building. FDR did not merely seek to federalize the existing dam structures at Muscle Shoals. He desired to expand the development of federally controlled hydroelectric generating dams throughout the Tennessee Valley in its entirety.⁷⁴

Though his vision for the Tennessee Valley became enveloped by New Deal legislation intended to heal a nation that suffered in the grips of a dire economic crisis, the Tennessee Valley Authority (TVA) was a markedly different plan with longstanding historical roots in the conservation debate over both Muscle Shoals and public ownership

⁷³ Franklin Delano Roosevelt, “Extemporaneous Remarks at the Site of the Bonneville Dam, Oregon,” 3 August 1934, *The Public Paper and Addresses of Franklin Delano Roosevelt: Volume III, The Advance of Recovery and Reform* (New York: Random House, 1950): 352. [Hereafter cited as *PPA Volume III*.]

⁷⁴ Roosevelt, “A Suggestion for Legislation to Create the Tennessee Valley Authority,” 10 April 1933, *The Public Papers and Addresses of Franklin D. Roosevelt: Volume II, The Year of Crisis* (New York: Random House, 1938): 122. [Herein referred to as *PPA Volume II*.]

of natural resources, particularly water. Blending Progressive Era conservation ideology, technological innovation, and social engineering, the newly elected president requested the kind of bill from Congress that he had spent four years fighting to bring to New York during his governorship. Unlike other New Deal legislation that had comprised an “alphabet soup,” the TVA was not an emergency response to the Great Depression, as some historians suggest.⁷⁵ Rather, the TVA represented a calculated attempt to articulate a new vision of citizenship in the South. Tied to that vision, the TVA sought to create jobs for local men affected by the unemployment crisis in the South, a crisis that had called their manhood into question by virtue of a lack of ability to earn a wage and support a family. Supporting the principle of a family wage, by which a man could earn a respectable living to support an entire family, the TVA created jobs for both black and white men in the Valley. The Great Depression afforded reformers the opportunity to realize the plans conservationists had long advocated.

For FDR in particular, battles over rivers in New York inspired an interest in the Muscle Shoals waterpower project. For Senator George Norris, who had fought for government control of America’s natural resources for twenty years, the election of a new President - a self-dubbed Forester in Chief – tilted the scales toward the federal power proponents. The seeds of the conservation plan to harness the river planted during the early twentieth century would bear fruit upon the 1932 election of a self-proclaimed tree

⁷⁵ See Amity Shlaes, *The Forgotten Man: A New History of the Great Depression* (New York: HarperCollins Publishers, 2007).

farmer and avowed conservationist to the White House.⁷⁶ The Tennessee River, infused with new meaning in the early twentieth century through a series of incomplete development plans along the stretch of the river known as Muscle Shoals, shifted shape and purpose in the 1930s as conservationists' plans for the river basin became a reality.

Promoting more than electricity, reformers like FDR, Norris, and TVA architects David E. Lilienthal and Arthur Morgan harked back to the Progressive Era and visualized power transferred from hydroelectric dams into homes where it would metamorphose into human power for marginalized and impoverished groups. Through the control and manipulation of nature's resources, New Deal conservationists aspired not only to provide government-sponsored electricity to the South; they sought to democratize the South's heartland and bring the laggard region into nation's – and the federal government's – fold by reconstructing the landscape. Conservation plans for the Tennessee Valley depended on civil engineering feats to build dams, yet reformers fused social engineering with hydraulic engineering as they laid plans for a multipurpose river basin development.

The shifting power dynamic envisioned by reformers in the 1930s also displayed a gendered undercurrent in the Rooseveltian sense of power. While hydroelectric dam

⁷⁶ When FDR filed official election paperwork in his bid for the White House in 1932, he listed his occupation as “tree farmer.” Planting trees at his Hyde Park, New York, estate was more than a hobby. He prioritized landscape planning, spent a great deal of personal time and attention to ensuring diversity in tree species, and employed several dozen Hudson Valley residents in the upkeep and maintenance of his tree farms. His estate, now under the management of the National Parks system, has remained largely unchanged since his death. See Brian Black, “The Complex Environmentalist: Franklin D. Roosevelt and the Ethos of New Deal Conservation,” in *FDR and the Environment*, (New York: Palgrave Macmillan, 2005).

power generation gave impetus to pockets of industrialization in a still largely agrarian Southern setting – both on the river and around the river basin – the larger goal for New Dealers was the promotion of electricity in the household as the locus of the social and environmental change they sought. At the heart of the dam building projects, electrifying the home rested on the future participation of women as consumers of power. Envisioned as a democratizing effort to create a new national citizen in the South, reformers in the 1930s interpreted the problematic plight of agrarian women and sought to alleviate it through household electrification. Just as Norris' success in advocating a conservation plan for the Tennessee Valley depended upon the support of the League of Women Voters (LWV), the success of power distribution and the transformation of the Southern landscape depended upon women's participation in the process.

While the LWV's official role in promoting conservation ended as the TVA Act became law, Marguerite Owen, who had worked to push the LWV into backing Norris' plan, received an opportunity to make her own mark on the TVA in a different capacity. As the Washington D.C. Representative of the TVA, Owen managed TVA relations with Congress, and the President. Owen's role at the TVA both underscored the importance of women's conservation advocacy, and juxtaposed the power policy that drew rural women into the all-electric home. To be sure, empowering unduly burdened and overworked rural Southern women, as New Deal reformers claimed, necessitated the dissemination of hydroelectric power through the hands of the federal government. Managing natural resources to incorporate power in the home demonstrated the encompassing vision of

New Dealers regarding the proper role of women in society, the correct usage of nature's bounty, and finally bringing the South back into the Union.

Perhaps because of the great social vision the TVA luminaries espoused for the region, those who most sympathized with its mission frequently became its loudest critics. This proved particularly true for African Americans, and especially the National Association for the Advancement of Colored People (NAACP). Seizing the moment during the New Deal to push for greater extension of rights for black Americans, the NAACP prodded the TVA to do more for blacks than the federal government had ever done. As historian Patricia Sullivan suggests, the New Deal "stirred the stagnant economic and political relationships that had persisted in the South, unchanged and largely unchallenged since the dawn of the century." As white and black Southerners viewed their region from the national framework that the New Deal helped to crystallize, they used the moment to push to restore political and economic rights for black Southerners.⁷⁷ African Americans, sympathetic to Roosevelt's New Deal, called for greater inclusion of blacks into the TVA's social engineering plans to reconcile ideas about citizenship with those held by leaders in the black freedom struggle. Between 1934 and 1935, the NAACP's John P. Davis and Charles Houston visited the TVA operations, focusing on parity in labor, and on the TVA's power policy and its broader implications for race relations in the South.

⁷⁷ Patricia Sullivan, *Days of Hope: Race and Democracy in the New Deal Era* (Chapel Hill: University of North Carolina Press, 1996), 3-6. See also Harvard Sitkoff, *A New Deal for Blacks: The Emergence of Civil Rights as a National Issue; the Depression Decade* (New York: Oxford University Press, 2009).

As outsiders in the region, the TVA Board of Directors treaded lightly around issues of race relations, wary of both white Southern resistance to incorporating African Americans into conservation plans, and African American insistence on prioritizing race in social engineering efforts to recreate the Tennessee Valley. Rather than displacing black agricultural labor to free it up to pursue new opportunities, the TVA, in Davis' estimation, circumscribed roles for African Americans in the South. Though the TVA avoided racial confrontations, federalized TVA power ushered in unprecedented landscape changes in the South, casting itself as second Reconstruction. Electrical infrastructure, civil engineering works, and conservation projects initiated during the New Deal would effectually transform the agrarian Southern Black Belt into the Sun Belt within a generation.

Environmental historians have begun to unravel conservation efforts undertaken during the New Deal, and new scholarship has helped to reinterpret the centrality of FDR's role in affecting environmental change. Donald Worster's seminal study of the Great Plains region in the 1930s provides a framework for understanding the ecological damage caused by intensive farming practices maladjusted to Great Plains ecology. He also highlights remediation efforts undertaken to manage soil quality during the New Deal. Worster argues that the Great Depression can be viewed as not only a crisis of capitalism, but also as an ecological crisis. Yet, in Worster's account, New Dealers missed fundamental opportunities to revamp the capitalist system that created ecological destruction and giant dust storms in the 1920s and 1930s. Instead, the New Deal propped

up Midwestern farmers long enough to revive capitalism, with potentially grave consequences for the future ecological health of the Great Plains.⁷⁸

In recent years, much attention has been paid to FDR's environmental ethic, breathing new life into traditional political histories of the New Deal. Wrapped up in FDR's plans for national economic recovery, conservation efforts put men back to work in the Civilian Conservation Corps (CCC), as Neil Maher highlights in his work on the tree planting armies employed across the nation during the New Deal. Underscoring the shift from conservation to environmental preservation that occurred after the New Deal, Maher traces the roots of the modern environmental movement to men's reforestation activities in the 1930s.⁷⁹ He does not, however, attach any particular significance to the gendered environmental effects produced by the CCC.

The roots of a modern environmental ethic can be traced to the New Deal, as Maher suggests, yet environmental historians are still left without an interpretation of the New Deal's affect on women and an analysis of their participation in late twentieth century environmental activism. Sarah Phillips focuses on the ways that the New Deal attempted to revive America's rural regions, particularly in the South. Arguing that state-sponsored efforts at environmental renewal lay at the heart of the New Deal, Phillips suggests that "new patterns of environmental regulation introduced during the 1930s and 1940s formed the lasting model for federal resource management and decisively shaped

⁷⁸ Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press, 2004).

⁷⁹ Neil Maher, *Nature's New Deal: The CCC and the Roots of the American Environmental Movement* (New York: New York University Press, 2008).

the evolution of the modern American state.”⁸⁰ Yet, even though Phillips stage for the New Deal efforts is the South, she fails to contextualize the importance of the region as a politically and socially distinct environment, particularly in regard to matters of race.

The TVA provides a unique opportunity to examine environmental change in South during the New Deal, and the social implications of national power policy. Inherent in New Deal plans to harness a river basin’s power by federalizing natural resources in the South, the TVA sought to usher in a reformative changes that would remake relations to the federal government as well as to the environment. Social engineering and moral purpose could not be extricated from 1930s civil engineering plans to develop a multi-purpose river basin; even the term multi-purpose deliberately recast damming water as a project with social implications. FDR, aware of the social importance of electric power and of natural resource conservation, had longed to bring public power to New York during his governorship in the 1920s and 1930s. His missed opportunities in New York resulted in a firm commitment to finally put an end to the twenty-year long debate over the government’s investment in Muscle Shoals.

FDR’s environmental policies stemmed from a dually pragmatic conception of conservation. To reflect a “proper balance,” natural resource conservation necessitated

⁸⁰ Sarah Phillips, *This Land, This Nation: Conservation, Rural America, and the New Deal* (New York: Cambridge University Press, 2007): 4.

comprehensive planning and implementation with centralized oversight.⁸¹ FDR saw a utilitarian purpose in conserving America's natural spaces and understood well the deeper interplay between natural resources and the economy. The roots of FDR's environmental ethic stemmed from his childhood experiences in Hyde Park, New York, where he established a physical connection to the land, its history, and contours.⁸² Hyde Park, roughly situated between the state capitol in Albany to the north and New York City to the south, was worlds away from both cities in the Hudson Valley. Though he spent a great deal of time recuperating in Warm Springs, Georgia, after poliomyelitis paralyzed his lower extremities, the rolling hills of his New York estate provided a form of physical therapy as he donned crutches and dragged his legs through walks in his forests. The ecological lessons he gleaned growing up in the Hudson Valley would later establish the basis for New Deal emergency programs like the CCC.

Remarking on conservation efforts of the 1920s, FDR decried that, "two centuries of unrestricted and prodigal use failed to reduce this great natural wealth sufficiently to warn the people that it was not inexhaustible." For his part in the conservation effort, FDR was a "firm believer in reforestation as a profitable means to utilizing idle, non-agricultural land," and had planted 8,000 - 10,000 trees every year since 1912 on his

⁸¹ The phrase "proper balance" is FDR's. See Roosevelt, "Acres Fit and Unfit: State Planning of Land for Industry and Agriculture," *The Public Paper and Addresses of Franklin Delano Roosevelt: Volume I, The Genesis of the New Deal* (New York: Random House, 1938): 485-495. [Herein referred to as *PPA Volume I*.]

⁸² Brian Black, "The Complex Environmentalist: Franklin D. Roosevelt and the Ethos of New Deal Conservation," in *FDR and the Environment*, 35.

estate.⁸³ Most of FDR's emergency legislation as President, whether in reforestation efforts, soil conservation efforts, or agricultural recovery, incorporated nature in putting American men back to work in the 1930s.⁸⁴ However, river development held special significance for him. His obsession with hydroelectric development evolved during his tenure as Governor of New York.

In his two terms as governor from 1928-1932, few other subjects garnered as much of FDR's attention as the development of waterpower. Upon accepting the Democratic nomination in the governor's race, FDR declared that "the time has come for the definite establishment of the principle as a part of our fundamental law that the physical possession and development of State-owned water-power sites shall not pass from the hands of the people of the State."⁸⁵ Like Gifford Pinchot, the father of the conservation movement, FDR advocated public ownership of natural resources and stood to reverse past policies that had delivered New York's rivers into the hands of private power utilities. In this, New York's part-ownership of Niagara Falls had long served as inspiration to those who saw vast potential in hydroelectric power, and conservationists proved no exception.

Tourists had made pilgrimages to Niagara Falls since the early nineteenth century, yet "the falls and their fame had been repeatedly reconstructed, literally and figuratively,

⁸³ Roosevelt, "Radio Address on the Conservation of Natural Resources as a Function of Government," 31 March 1930, *PPA Volume I*: 521-522.

⁸⁴ See the collection of essays in *FDR and the Environment* (New York: Palgrave Macmillan, 2005).

⁸⁵ Franklin D. Roosevelt, "The Candidate Accepts the Nomination for the Governorship," 16 October 1928, *PPA Volume I*, 15.

their form and meaning revisited by generation after generation.” Private hydroelectric power corporations on the American side had diverted the water cascading over Niagara’s falls to fuel industry and power plants. In the 1860s and 1870s, Frederick Law Olmstead attempted to preserve the scenic qualities of Niagara Falls by building state park vistas around the horseshoe shaped waterfall. While Olmstead’s campaign established a state park overlooking the Falls, by 1909 the panorama proved less than breathtaking. Having the appearance of virtually having run dry due to excess water diversion for electricity, the utilization of Niagara’s waters became a sensitive international issue and politically difficult for any public power advocate in New York to tackle.⁸⁶ Rather than intervene in ongoing debates over the Falls, FDR turned his sights upstream to the St. Lawrence Seaway for waterpower.

During the gubernatorial campaign of 1928, candidate Roosevelt traveled statewide delivering speeches about New York’s vast waterpower potential. In his addresses, FDR rallied support for his candidacy by linking hydroelectric development to democratic traditions. Announcing that, “tonight, I am going to talk about a very wet subject, the wet subject of water power,” FDR claimed, “while it may not be quite as soul-stirring a subject as the other wet one (prohibition) in some ways it goes just as deep into the roots of our democracy.” Recounting the history of hydroelectric development in New York State, FDR lamented that the 1907 “legislature gave away on a silver platter a

⁸⁶ Ann Whiston Spirn, “Constructing Nature: The Legacy of Frederick Law Olmstead,” William Cronon, ed., *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W.W. Norton & Co., 1996): 95-96.

charter in perpetuity, giving the right to develop the power of the Long Saulte Rapids up on the St. Lawrence River.” As a member of the state senate in 1912, FDR had resented prior legislative dole outs that deeded potential waterpower sites to corporations, and he carried this resentment through the 1928 election. “In many ways,” Roosevelt claimed, “this matter of power is the outstanding controversial issue before the people of the State in this election.” As gubernatorial candidate, he promised to overturn a century of legislative mistakes in regard to natural resource policy, and vowed to deed New York’s waterways back to the people. “The loss of their priceless heritage,” was at stake, and FDR resolved to right past legislative transgressions.⁸⁷

Once elected in 1928, FDR continued to fight for publicly owned waterpower development. “There has been a run to waste on their paths to the sea,” he remarked, “enough power from our rivers to have turned the wheels of a thousand factories, to have lit a million farmers’ homes – power which nature has supplied us through the gift of God.” He proposed to reclaim the state’s rivers for the people, to see water transformed into power in the hands of the government. “It is our power,” he contended, “and no inordinate profits must be allowed to those who act as people’s agents in bringing this power to their homes.”⁸⁸

Interjecting himself into the public waterpower debate that had been waged for decades, Roosevelt joined a chorus of the voices of other reformers like Gifford Pinchot,

⁸⁷ Roosevelt, “Campaign Address at Syracuse (Excerpts) Syracuse, NY,” 23 October 1928, *PPA Volume I*: 44-45, 51.

⁸⁸ Roosevelt, “First Inaugural Address as Governor,” 1 January 1929, *PPA Volume I*: 77-78.

Senator George Norris, and Marguerite Owen, who advocated harnessing nature for social ends, rather than for profit. Converting natural resources into power for household consumption remained at the heart of his platform to develop hydro electricity. “I consistently held that the power should be developed for the primary benefit of the consumer at the lowest possible rate,” the Governor proclaimed, further asserting that “my interest in water power development was primarily to get it into the homes of the women of the State and into the small shops and stores.”⁸⁹

FDR placed particular emphasis on privileging power for women. Asserting that, “the housewives of many parts of the State look to us for relief from rates so high as to deprive them of the advantages of modern science to release them from household drudgery,” FDR linked gender and class in his campaign for electricity, which persisted throughout his political career.⁹⁰ Continuing to wage war on private utilities in New York, FDR focused his arguments on the benefits of electricity for the household, such as “for light, cooking, refrigeration, ironing, toasting, vacuum cleaning, radio operation, washing machine, fans, waffle irons, chafing dish[es] and other kitchen appliances.”⁹¹ By emphasizing electricity’s usefulness in the household, a gendered space, FDR cited that “the reduction in household labor which such electrical appliances could bring about,” would mean “that a woman could have all the benefits of these household labor-saving devices for a month, at the rate of \$3.40,” the same rate that New York’s northern

⁸⁹ Roosevelt, “The Governor Transmits the Report of the St. Lawrence Power Development Commission,” 19 January 1931, *PPA Volume I*, 187.

⁹⁰ Roosevelt, “The Annual Message to the Legislature,” 7 January 1931, *PPA Volume I*, 107.

⁹¹ Roosevelt, “Campaign Address, Syracuse, NY,” 22 October 1930, *PPA Volume I*: 420-21.

neighbors in the Province of Ontario were charged under the publicly owned and operated Ontario Hydro Electric Commission. Quipping that, “it takes the same number of kilowatts to cook stewed beef in Toronto as it does in Syracuse,” FDR connected electricity’s promise to women’s traditional role in the home in an effort to rally support for the public plan in New York.⁹² Honing his craft in state politics, FDR continued to push for the extension of electricity into homes where it would serve a domestic and gendered purpose. Yet, in New York, a host of powerful interests stymied his efforts, including the Hoover administration.

Herbert Hoover, the former Secretary of Commerce charged with ameliorating the devastating effects of the 1927 flood of the Mississippi River, aligned with conservationists on many issues. Yet, the differences between Hoover and Roosevelt did not end with divergent philosophies on politics and economics. The two men held opposing views on the role of the state in promoting natural resource conservation in public policy. FDR strongly believed that the authority to control natural resource policy rested with the state. Though Hoover subscribed to a wise-use conservation policy, he resisted attempts to vest the federal government with the power to usurp private capital’s control over nature. With proper federal oversight through moderate adjustments to regulations, Hoover prioritized private corporations’ right to utilize natural resources.

⁹² Roosevelt, “Campaign Address, Syracuse,” *PPA Volume I*, 421. Evidence from *PPA Volume I* suggested that when FDR spoke publicly about defeating private power interests and providing public power for housewives, and experienced legislative setbacks toward this goal, both men and women telegraphed the Governor en masse in support of his public plan. Whether this had more to do with his success of piloting power for women or a general distrust of utility monopolies remained unclear.

In March of 1930, the New York legislature finally passed a bill to develop waterpower on the St. Lawrence Seaway. However, because Canada and the province of Ontario also shared the waters in question, FDR's plans for the St. Lawrence Seaway depended on successful four-way negotiations between the Canadian Parliament, the Province of Ontario's Hydro-Electric Power Commission, the U.S. federal government, and the state of New York. His proclamations of state jurisdiction over rivers during his tenure as Governor made little headway with Hoover. Hostility between the two men mounted. Hoover thwarted Governor Roosevelt's efforts to obtain permission to develop public power on the shared river, citing that "answers to specific questions could not be given until the problem had been developed further through negotiations between the United States and Canada."⁹³ Hoover thus contended that jurisdiction over waterway infrastructure rested with federal powers.

In retaliation, FDR signed a second bill in 1931 that created the Power Authority of the State of New York, "under the definite policy declared in the law that the St. Lawrence River within the State's boundaries was a natural resource of the State, and that the bed and waters of the river and the power and power sites should remain inalienable to the people of the State." FDR's insistence upon states' rights in issues involving public waterpower remained at odds with Hoovers' belief that the federal government alone retained the right to allow private interests to develop waterway infrastructure. Again, Hoover ignored the Governor's request to enter into quadrilateral talks among the

⁹³ Roosevelt, "Public Water Power Development and Cheaper Electricity in the Home and on the Farm," *PPA Volume I*, 161.

river's stakeholders, retorting that "whatever [the] rights the State of New York may be in respect to electric power must in the end depend upon the authority and permission of the Federal Government."⁹⁴ In a final effort to negotiate with Hoover, FDR sent a telegram requesting a conference to discuss the St. Lawrence Seaway development plans under proposal. Hoover denied the request, ending FDR's quest to bring more power to New York. With an eye toward the 1932 Presidential election, FDR steadied himself to exact his revenge for being thrice slighted at the hands of the incumbent. If Hoover claimed federal authority over the waterways, FDR remained determined to beat him at his own game.

Shifting his focus to national development of waterpower as the Democratic presidential nominee, FDR laid out the vision for his campaign by asserting that, "when the great [natural resource] possessions that belong to all of us – that belong to the Nation – are at stake, we are not partisans, we are Americans." When it came to natural resource management and conservation, both Republicans and Democrats could agree to prioritize the safeguarding of natural resources in the public interest.⁹⁵ For nominee Roosevelt, the social imperative of disseminating power remained a central feature of his national

⁹⁴ Roosevelt, "Public Water Power Development," *PPA Volume I*: 163, 165.

⁹⁵ Norris and Pinchot were both Republicans, while Roosevelt was a Democrat. Despite their party differences, their conservation ethic bound them together. Indeed, Roosevelt perhaps had more in common with Norris and Pinchot than he did with many Southern Democrats, while his predecessor, Republican Herbert Hoover shared few of the same interests as his conservationist partisans. FDR's comment on being American, not partisans, is likely also an attempt to sway Republicans of the Norris and Pinchot brand. Incidentally, Norris broke ties with his party and outwardly supported FDR for President in 1932, and every reelection bid thereafter. Ultimately, this would cost Norris his Senate seat in 1944.

campaign. Observing that ‘cold figures do not measure the human importance of the electric power in our present social order,’ FDR believed that, “electricity is no longer a luxury. It is a definite necessity.” In order to make electrical power the “willing servant” of the household, federal intervention proved necessary. To Roosevelt, the nation appeared to be steeped in vast water resources that would enable electricity to run through the homes of Americans from coast to coast. That the United States lagged behind Canada in electrification of the home only provided further evidence of the task ahead of him. “I promise you this,” Roosevelt declared, “never shall the Federal Government part with its sovereignty or with its control over its power resources, while I am President of the United States.”⁹⁶ Shifting the focus from state sovereignty to federal imperative, Roosevelt wielded Hoover’s own rhetoric against him. As he clinched the Executive Office in 1932, FDR vowed to test the limits of federal power over the waterways with a grand social experiment in Tennessee Valley.

As President elect, Roosevelt wasted no time in turning his sights to a different public power problem. His plans for the St. Lawrence Seaway may have come to naught, but the social possibilities of creating a new Tennessee River valley enthralled him. In the midst of the worst economic crisis in the nation’s history, the President-elect made only one trip in the four months before his inauguration. It was not to bear witness to the human face of poverty plaguing the nation during the Great Depression; it was not even to discuss political strategies for an economic recovery plan. In January of 1933, FDR

⁹⁶ Roosevelt, “Campaign Address on Public Utilities and Development of Hydro-Electric Power, Portland, OR,” 21 September 1932, *PPA Volume I*: 728-733, 742.

traveled with Senator George Norris to Muscle Shoals in Alabama in order to appraise the potential of the hydroelectric power site for himself. Standing at the foot of the Shoals, FDR declared that, “the Muscle Shoals Development and the Tennessee River Development as a whole are national in their aspect and are going to be treated from a national point of view.” He departed Alabama that January day determined “to put Muscle Shoals to work,” and “to make of Muscle Shoals a part of an even greater development that will take in all of that magnificent Tennessee River from the mountains of Virginia down to the Ohio and the Gulf.”⁹⁷ Indeed, the development of the Tennessee River was one project that afforded Roosevelt an opportunity to create real change when so much of his time would be consumed with emergency steps to alleviate the economic crisis.

On April 10, 1933, a mere month after his inauguration, Roosevelt delivered a speech to Congress requesting legislation to bring the Muscle Shoals development online, and create an infrastructure of dams along the Tennessee Valley. Remarking on the importance of the Tennessee Valley area for “general social and economic welfare of the Nation,” FDR clarified plans to federalize the existing parts of the Muscle Shoals projects developed in fits and spurts in the late nineteenth and early twentieth centuries. The President requested a bill from lawmakers that would sanction a federally controlled TVA. Norris, needing no further encouragement, seized the moment to drop a new

⁹⁷ Roosevelt, “Informal, Extemporaneous Remarks at Montgomery, AL, on Muscle Shoals Inspection Trip,” 21 January 1933, *PPA Volume I*, 887.

Muscle Shoals bill in the hopper. Incorporating multipurpose river basin development into the plan, Norris' bill turned into law when Congress signed the Tennessee Valley Authority Act of 1933. With the creation of TVA, Congress finally ended the long controversy over the stretch of the Tennessee River in Alabama. Norris celebrated the occasion, commenting that, "the Muscle Shoals message was the greatest humanitarian document to ever come from the White House."⁹⁸ For their part in allying with Norris in the 1920s, FDR accorded the President of the League of Women Voters (LWV) a seat at the table the day he signed the bill. Noting the "holiday mood" in the air the day the TVA bill became law, LWV President Belle Sherwin laughed heartily when FDR jested to the Act's supporters, "are we all here? Where is the Alabama Power Company?" knowing that the company "had been bitterly opposed to TVA." The President of the United States symbolically "finished the signature with a flourish and gave the final pen to Miss Sherwin." Noticeably absent that day was Marguerite Owen, the young LWV advocate who had worked closely with Norris in the public power fight by rallying support for conservation efforts in the Tennessee River watershed among women voters. Rather than being offered a pen, Owen would be offered the chance to make her own mark on the TVA, as a reward for "much of the basic educational work necessary to get public understanding and support of the measure."⁹⁹

⁹⁸ "Roosevelt Urges Vast Development Under Shoals Plan," *New York Times*, 11 April 1933.

⁹⁹ "Reminiscences of Muscle Shoals," *For the Public Record: A Documentary History of the League of Women Voters* (Westport, CT: Greenwood Press, 2000): 157.

While controlling the waters over the Tennessee River remained the top priority for the new agency, the President, mincing no words, remarked that the “control of water means also conservation and preservation of land resources.” The preservation of land would be enhanced by the TVA’s nitrate factory, educational programs for farmers on soil conservation, developing networks with agricultural extension units at land grant universities, and instituting engineering methods to control flooding. Fulfilling conservationists’ hopes for multipurpose rivers, the TVA embarked on building electrical transmission lines, homes and schools in new planned communities, as well as implementing malaria control programs and resettlement efforts to relocate those in the path of new reservoirs. Erosion control, flood control, reforestation of the area by the Civilian Conservation Corps, but most importantly, the provision of electricity to the Southland “to secure the widest use of this surplus power, especially in homes and on farms,” formed the backbone tenets of TVA.¹⁰⁰ For better or worse, the new agency promised to leave few aspects of life in the Tennessee Valley untouched.

In speeches around the nation, FDR promoted the federalized construction of power projects and extolled the virtues of the American connection with nature highlighted in dam building. “There is nothing so American as our National Parks,” FDR remarked in a radio address. Linking the national parks to the issue of waterpower, the President went on to assert that,

¹⁰⁰ Roosevelt, “Legislation to Create the Tennessee Valley Authority,” *PPA Volume II*: 125-126.

As in the case in the long fight for the preservation of national forests and water power and mineral deposits and other national possessions, it has been a long and fierce fight against many private interests which were entrenched in political and economic power. So too it has been a constant struggle to continue to protect the public interest, once it was saved from the private exploitation at the hands of a selfish few.¹⁰¹

For the President most clearly identified with providing relief to those suffering under the crushing weight of economic problems, who also cultivated a public image as an advocate for the common man, nature provided a path out of the depths of unemployment and poverty, a way to to unite Americans from coast to coast, and a means to reinvigorate a nation. Concluding his remarks at Glacier National Park, the President offered that in his travels, he realized that “people understand, as never before, the splendid purpose that underlies the development of great power sites... We know, more and more, that the East has a stake in the West and the West has a stake in the East, that a Nation must and shall be considered as a whole and not as an aggregation of disjointed groups.”¹⁰² Nature provided bounty and a national connection linking disparate regions within the country. Nowhere did that matter more than in the South.

Poverty and quality of life in the South loomed large on the President’s mind in 1934. For New Dealers, river conservation possessed the additional capability to reshape American society. In response to questions during a November press conference about the TVA, FDR candidly divulged that through the TVA and federal waterpower, “what

¹⁰¹ Roosevelt, “Radio Address Delivered at Two Medicine Chalet, Glacier National Park,” 5 August 1934, *PPA Volume III*, 361.

¹⁰² Roosevelt, “Glacier National Park,” *PPA Volume III*, 362.

we are doing there is taking a watershed with about three and a half million people in it, almost all of them rural, and we are trying to make a different type of citizen out of them from what they would be in their present conditions.”¹⁰³ TVA-generated electricity had the capacity to transform the lives of those marginalized in society by increasing standards of living. The transformation of a natural resource into power in the lives of the nation’s most impoverished residents represented a potent conceptualization of both nature and citizenship. In this effort, the President surrounded himself with advisors who advocated similar beliefs about the transformational capacity of power. FDR charged a board of three trustees with implementing the goals of the TVA, and he selected wisely. In Arthur Morgan, Harcourt Morgan (no relation), and David Lilienthal - the first TVA triumvirate - the President found like-minded reformers anxious to engage in power-induced citizenship creation.

The first TVA triumvirate has garnered much attention because of public, internal conflicts and feuds between Arthur Morgan and Lilienthal.¹⁰⁴ Bypassing the internal strife, however, illuminates the similarities in the first Board’s conceptions of creating citizenship through government sponsored energy projects. Morgan, a former hydraulic engineer in the Miami River basin’s Conservancy District, argued that while the TVA might be regarded “as a jumble of special provisions, thrown together to meet a variety of

¹⁰³ Roosevelt, “The One Hundred and Sixtieth Press Conference (Excerpts), Warm Springs, GA,” 23 November 1934, *PPA Volume III*: 466.

¹⁰⁴ “Power: Morgan v. Morgan & Lilienthal,” *Time*, 14 March 1938. See also James C. Scott, “High Modernist Social Engineering: The Case of the Tennessee Valley Authority,” *Experiencing the State*, eds. (New Delhi: Oxford University Press, 2006): 23-24, and Thomas K. McCraw, *Morgan vs. Lilienthal: The Feud Within the TVA* (Chicago: Loyola University Press, 1970).

special interests,” the organization could be best understood as a social engineering project, with waterpower acting as the medium to achieve those goals. “In the watershed of the Tennessee River,” Morgan asserted, “there shall be attempted the first deliberate effort, on a large scale, to inspire systematic and balanced development of the social and economic life of a part of our country.” Arguing that the Tennessee Valley represented a laboratory for a “permanent civilization,” Morgan vowed to transform the “mountain regions of Kentucky, Tennessee, West Virginia, Virginia, North and South Carolina and Georgia...the last great bulwarks of individuality in America.” By individualism, Morgan referred to a spirit of regionalism that bucked nationalization, mechanized farming, road development, and the growth of a middle class – goals that New Dealers aspired to promote across the nation.

In bringing electricity to the region, attracting new industry, and educating citizens of the Valley on “hygiene, sanitation, in home management, and some skilled calling they can later use,” Morgan believed the TVA would tear apart the fabric of the Southern brand of individuality.¹⁰⁵ Much like FDR’s ideas of breaking down East and West borders, Morgan’s TVA plans aspired to create a new kind of Southern culture, grounded in a new homogenous vision of citizenship in the rural South. Yet, despite Morgan’s critique of the Southern brand of individuality, many politicians in the South threw their support behind the TVA. In a public debate over the merits of public power, George Dempster, a municipal politician in Knoxville, Tennessee argued that “they

¹⁰⁵ Arthur Morgan, “Planning in the Tennessee Valley,” *Current History* (September 1933): 665-666.

[Union Civil War troops] scarified our country to the bone and there wasn't a federal dollar spent there in the 70 years until the TVA came in." The infusion of federal dollars, even with the moral connotations it carried, provided a source of regional pride for municipal leaders. "We put washing machines out on the front porch," Dempster, half-mockingly, boasted, "so that neighbors coming by can see how prosperous we are."¹⁰⁶

Morgan went on to contend that in the Tennessee Valley the federal government could experiment and export similar plans to other regions, but no New Dealer enthusiastically promoted the exportation of the TVA model more than his Board counterpart. "I write of the Tennessee Valley," Lilienthal proffered, "but all this could have happened in almost any of a thousand other valleys where rivers run from the hills to the sea...in Missouri and in Arkansas, in Brazil and the Argentine, in China and in India there are just such rivers." For Lilienthal, the river also represented an organizational tool for creating citizens; with the ingredients of a river basin, a solid moral purpose, and technologically sound engineering plans, Lilienthal constructed a recipe for exporting the TVA plan elsewhere. Claiming that moral purpose constituted one of the most critical elements of the plan, Lilienthal wrote that, "without such a purpose, advances in technology may be disastrous to the human spirit; the industrialization of a raw material may bring to the average man only a new kind of slavery and destruction of the democratic purpose."¹⁰⁷ No longer merely a story about

¹⁰⁶ "Public Power versus Private Power in the South," 10 May 1954, Papers of John M. Carmody, Franklin D. Roosevelt Library, Hyde Park, New York. [Herein referred to as JMC.]

¹⁰⁷ David E. Lilienthal, *TVA: Democracy on the March* (New York: Harper and Brothers, 1944): 2, 6.

soil conservation and waterpower, the TVA architect sought to harness the power of the federal government and natural resources to construct proper citizenry. “Its purpose,” Lilienthal claimed, “will determine whether men will live in freedom and peace, whether their resources will be speedily exhausted or will be sustained, nourished, made solid beneath their feet not only for themselves, but for the generations to come.” Exalting the benefits of nature as Progressives before him had done, Lilienthal encouraged young people in particular to get into the “interesting habit of looking at a river, for example, as a force in the life of your region rather than a piece of scenery or a place merely to go boating,” or to “look at the land not as dirt or farms, not merely what separates one railroad station from another, but as a vital force that determines the livelihood of your city and your own future.”¹⁰⁸ Rather than mere commodities, natural resources provided the very connective tissue to rebuild American society in the TVA’s vision.

Lilienthal’s vision of electricity harnessed from the river released humans from the bondage of labor and the threat of destructive flooding. The TVA, in his estimation, had established the authority to develop a “modern method of controlling a river, making it go and work and pay for the cost of its control, making that river serve all the various kinds of uses that a river can be made to serve and at the same time, eliminating its wild, destructive habits of periodic flooding.” Feats of human ingenuity forced the river to do “what it is told to do,” in order to squeeze “all the good out of the water in this way,

¹⁰⁸ Lilienthal, “The Grand Job of Our Century,” 17 June 1944, [commencement address delivered to College of the City of New York] Papers of Morris L. Cooke, Franklin D. Roosevelt Library, Hyde Park, New York. [Herein referred to as MLC.] Morris L. Cooke saved a complete collection of David Lilienthal’s speeches and addresses regarding the TVA.

putting it to work, and taking the onerousness out of it in flood time.”¹⁰⁹ Though abating floods remained a central part of the TVA’s task, the power of the waters that once overwhelmed homes and flooded farm land provided electricity that offered to refine life in the Valley. For Lilienthal, “a kilowatt hour of electricity is a modern slave working tirelessly for men. Each kilowatt hour is estimated to be the equivalent of ten hours of human energy.”¹¹⁰ His ironic comments on electricity as a modern slave, when applied to the South, seemingly resonated with a captive audience in the Valley used to understanding labor in human terms. Though he never expounded upon his thoughts on the racial caste system in the South, the inference to freeing humans in bondage held special significance. In an electrified society, even black manual labor would be freed to pursue other opportunities. TVA thought had evolved into a social engineering project, the likes of which early proponents of federal waterpower like Norris had scarcely imagined.

Though not on the Board of Directors, Eric Draper, the Director of Land Planning and Housing in the TVA, believed it a responsibility of the TVA to fuse social engineering and civil works projects. “I would question,” Draper remarked, “whether any such regional agency could be successful, unless its set up was such that an integral part of its activities were intimately and actively associated with the social and economic development of the region.” At the heart of the mission of the TVA lay the “attempt to

¹⁰⁹ Lilienthal, “Making a River do as its Told,” 2 May 1944, [speech delivered over radio station KSD in St. Louis, MO] MLC.

¹¹⁰ Lilienthal, *Democracy on the March*, 17.

assist people to better opportunities,” with the dam construction bringing about “physical changes in land use, transportation, communication, and population adjustment which make it mandatory to replan certain areas or sub regions.” At the highest levels in the TVA intertwined social, economic, and landscape planning to affect change with a natural logic. For Draper, climate, topography, and the land itself, “always largely determined the social and economic development, so there should be regional land use plans to coordinate the studies of natural resources, industrial possibilities, governmental procedure and social movements.” The unabated environment shaped and influenced social and economic structures, and the TVA leadership took cues from nature to remake the relationship that had held Southerners to marginal lands. “If this can be accomplished,” Draper suggested, “the groundwork for a better civilization may be laid and the benefits extended throughout the country.”¹¹¹

To support their efforts in the Valley, the TVA Board of Directors needed a strong, permanent leader in Washington D.C. to confer with the President, the Congress, and the public. The position required a candidate who had insider knowledge of the legislative process, someone highly connected in the Nation’s capitol, and most importantly, someone who demonstrated loyalty to the mission of the TVA. Lilienthal singled out Marguerite Owen, former LWV Legislative Representative, for the position. Since preparing the position document for the LWV on Muscle Shoals that ultimately led

¹¹¹ Eric Draper, “Large Scale Regional Development,” 22 October 1934 [address before the National Conference on City Planning and American Civic Association, St. Louis, MO], MLC.

to the organization's conservation platform, Owen had remained politically active, though not in the League itself.

Professor Sophonisba Breckinridge recruited Owen to the University of Chicago to conduct research for President Hoover's Research Committee on Social Trends. For Breckinridge, Owen's skill in assembling data, as well as her "vivacious and animated style" and her "clear vision" contributed to preparing a report of magnitude. Breckinridge, appointed to the committee by Hoover in 1929, authored the portion on women in the Recent Social Trends in the United States. Rather than focus on women's position in society inside the home, the study investigated aspects of women's public life, including "their varied organizations, their search for gainful employment, and their relationship to government." Tying civic housekeeping to women's political activity, Breckinridge deduced that "much of the civic work which they [women] pioneered is now assumed as public responsibility. Streets are lighted, for example, and playgrounds maintained by public agencies. Women, like men, can express their support or opposition at the polls." Breckinridge's study revealed important insights into women's extra-domestic lives since 1890. Owen, who had firsthand experience with the organization most frequently associated with women's political activity after 1920, provided a link to bridge Breckinridge's study about the political lives of women in the early twentieth century.

As the study concluded, Owen, not accustomed to clerical work, took a secretarial position in Washington D.C. with Senator Edward Prentiss Costigan of Colorado.

Costigan, the Senate's leading proponent of anti-lynching legislation, retained ties to the NAACP. On two occasions, Costigan introduced anti-lynching legislation, and though it twice failed to pass, the NAACP counted Costigan as a friend. Through Costigan, Owen's network of political contacts expanded. She could not only count notable conservationists, powerful women organizers, and academics as political allies, but also the African Americans and progressive whites invested in the black freedom struggle. If anyone better understood the import of the TVA in the South from a variety of perspectives, they certainly did not surface during Lilienthal's candidate screening process. Rather, Owen appeared Lilienthal's first and only choice for the Washington D.C. TVA Representative position.

Owen expressed immediate interest in the position, relaying her loyalty to the TVA's mission and making mention of her vast array of political connections. "As the League's representative, and later, I had the privilege of assisting Senator Norris in his efforts to secure the operation of Muscle Shoals in the public interest," she wrote.¹¹² In the position as Washington Representative, Owen knew she could draw upon the skills she had developed at the LWV, which included, "responsibility not only to advance the League's legislative program by lobbying at the Capitol, but also to prepare material designed to inform its members concerning the issues involved and through them to educate the general public in support of selected measures." The TVA offered no

¹¹² "Letter, Marguerite Owen to W. A. Sutherland, undated, Marguerite Owen Personnel File, Tennessee Valley Authority Corporate Library. [Herein cited as TVACL]"

secretarial position in the nation's capitol, which Owen seemingly embraced by virtue of her apology for a lack of stenographic ability.¹¹³

Owen's experience proved an invaluable asset for Lilienthal, who sought someone to maintain favorable contact with the President and members of Congress. Lilienthal also found her impressive array of contacts as stirring as her resume. Owen's network included Norris, Costigan, conservationist Morris Cooke, Harry Slattery of the National Conservation Commission, notable child welfare advocate Grace Abbott, and Judge Louis Brandeis.¹¹⁴ Charged with oversight of the D.C. office, the successful candidate would wield tremendous influence, and with it responsibility. As a woman, Owen was also a more unassuming choice for a position of such influence. Writing Morgan in October of 1933 for his approval, Lilienthal pronounced that, "I believe I have found just the person we need for this extremely difficult job." On this, even Morgan could agree.¹¹⁵ Lilienthal hired Owen on November 1, 1933. If the TVA aimed to empower women through electricity, Owen's role at the TVA powerfully symbolized that mission.¹¹⁶

To be sure, Lilienthal grasped the significance of the LWV's role within the historical backdrop of the new TVA. At the LWV's 1934 convention, he praised the

¹¹³ "Letter, Marguerite Owen to David E. Lilienthal, Director of the TVA, 19 October 1933, TVACL.

¹¹⁴ Though Lilienthal cites that Owen "has the confidence of such people as...Judge Brandeis," the association between the two was never explained. Owen's association with Cooke, Slattery, and Abbott all likely derived from her work on conservation issues with the LWV, and from the research she performed while working with the University of Chicago.

¹¹⁵ Lilienthal and Morgan rarely agreed on matters before the TVA Board. Their conflicts produced inner strife, and eventually led to FDR's dismissal of Morgan from the Board, and as Chairman, in 1938. Lilienthal succeeded Morgan as Chairman. See Thomas K. McCraw, *Morgan vs. Lilienthal*.

¹¹⁶ Letter, David E. Lilienthal to Arthur Morgan, undated, TVACL.

group's efforts in seeing the TVA into existence. "There can be no question but that without the support of organizations of your prestige," Lilienthal extolled, "Senator George Norris might have fallen short of victory in his decade-long fight to retain the great hydroelectric properties at Muscle Shoals for the use of all people. He continued, "as a group of women united to take part in the political life of the city, state and nation, you have an immediate and direct interest in the community control of public utilities." More importantly, Lilienthal remarked, "as women of America, individually, you are the most important of all users of electricity – the users of electricity in the home."¹¹⁷ Lilienthal failed to see the irony of his remarks. His insistence on the rightful place of women in the home as domestic consumers of power contrasted with the public role LWV had played in an effort to usher the TVA into existence.

Not all rejoiced in the TVA's power-induced nationalization project. *The New York Times* remarked that while "Florence and the neighboring cities near Muscle Shoals went wild with joy when the Norris bill passed," the difficulties in passing the bill would appear diminutive in comparison to the task that lay ahead of the TVA. For one reporter, the TVA "does not seem to belong in the same setting with the rough cabins in the woods less than a mile away. It is separated by a century of change, if not progress, from the hill people on their dizzy farms." Residents of the Valley "living in one room log cabins, sleeping on husk mattresses laid on the floor" could not possibly know what to do with

¹¹⁷ "David Lilienthal on the League and the TVA," *For the Public Record: A Documentary History of the League of Women Voters* (Westport, CT: Greenwood Press, 2000): 158.

electricity, the article concluded.¹¹⁸ Combined with a full assault by the entrenched private power companies in the region who sought refuge in the court systems to overturn the TVA's constitutionality, the magnitude of the Authority's task of homogenizing the South and bringing the people to national standards of citizenship proved too daunting for some critics who could not see beyond the stereotypes of rural Southerners.

While some critics lacked faith that the TVA could realize its vision for the residents of the Tennessee Valley, African Americans organizations also challenged the TVA's social engineering project. Calling the TVA's social imperative in the region into question, the NAACP launched a critique of the new agency that had set to work employing thousands of people in the Valley in the dam construction phase. During the early years of FDR's presidency, John P. Davis, who worked with the NAACP and the Joint Committee on National Recovery, had developed the reputation of being a thorn in the side for advocates of the first New Deal. Davis, a Harvard trained lawyer, attacked New Deal agencies in the black press for blatant discrimination against African Americans. To ensure proper representation for blacks in the efforts at economic recovery, Davis was quick to point out discrepancies in New Deal policy that largely excluded African Americans from the federal government's largesse. In Davis'

¹¹⁸ "The Vast Setting of Power-Age Dream," *New York Times*, 25 June 1933.

estimation, the first New Deal had turned out to be the same raw deal for African Americans.¹¹⁹ The TVA, despite its grand social imperatives, was no exception.

In 1934, Davis first visited TVA operations in Norris, Tennessee, reporting complaints involving equality in labor and hiring practices to the NAACP.¹²⁰ “It is evident,” Davis proclaimed, “that more than any other segment of the population, they [African Americans] are in need of the social and economic rehabilitation which the TVA projects offer. Moreover, it is inevitable that the program cannot be successful without the integration of a large Negro segment into both the immediate and future plans of the TVA.” Instead of considering the black population in planning and development schemes for the region, Davis argued the TVA architects had deliberately ignored African Americans. Labeling the TVA “lily-white Reconstruction,” Davis accused the agency of instituting segregation in federal housing, through federal jobs, with federal money. “Out of taxpayers’ money the TVA is building the model town of Norris, Tennessee, to contain a basic number of 500 families...No expense has been spared to make and preserve it as the ideal American community,” Davis noted.¹²¹ That African Americans had been excluded from the utopian village spoke volumes about the role of blacks in the socially engineered TVA region. While the TVA purported to hire a

¹¹⁹ Harvard Sitkoff, *A New Deal for Blacks*, 42. Davis’ attack on the New Deal was not limited to the TVA; he also wrote exposes of the National Recovery Act, Social Security, and the Agricultural Adjustment Agency. See Sitkoff, 36-43.

¹²⁰ Davis’ New Deal reports to the NAACP were regular feature articles in *The Crisis*, the NAACP’s newspaper. However, before he published abridged versions of his TVA reports in *The Crisis*, he furnished the TVA Board of Directors with copies, giving them ample time to respond.

¹²¹ John P. Davis, “TVA: Lily-White Reconstruction,” *The Crisis* (October 1934): 290.

workforce that, in percentages, reflected the diversity of the Tennessee Valley, Davis concluded that though the TVA hired African Americans in the dam construction phase, few of those jobs required skilled labor, and the majority of black unskilled workers earned significantly less than their white counterparts in similar positions.¹²²

After Davis filed his report with the NAACP, distributing a copy to the TVA and publishing another in *The Crisis*, he revisited the same TVA operations a year later to determine if changes had been made in hiring and housing practices. The TVA Board had done nothing, it appeared. As Davis considered the Authority's position on power dissemination, he contended that the social and economic goals the TVA visionaries held for the region simply did not apply to African Americans. "A basic concept put forward by TVA officials is that electric power may be used to remove many of the drudgeries of daily life to effect many home and farm economies, and thus to make possible a better life," Davis wrote, and yet "for Negroes the introduction of cheaper electric rates into Lee County as a result of TVA power policy has meant nothing." Without proper equity in the employment sector, which the TVA stood to remedy, African Americans could not afford the luxury of electrified homes, even at cheap TVA rates. Furthermore, the TVA appeared unlikely to do much in the face of entrenched Southern power holders.

¹²² African Americans comprised ten percent of the total population in the entire Tennessee Valley. In each phase of dam construction, and in each location, African Americans made up exactly ten percent – no more, or less - of the TVA work force. However, many states and specific counties in the Tennessee Valley had much larger minority populations, such as in Alabama and Mississippi. Even when the black population represented over thirty percent of the general population, such as it did in Lowndes County, Alabama, the TVA still only employed ten percent of African Americans in its labor force. Furthermore, it is worth noting that the TVA hired its laborers directly, rather than contracting work out.

“Landlords, whether of Negro slum dwellers in Tupelo or of Negro tenant farmers in the rural sections of the county,” Davis chided, “have not found it to their advantage to wire their Negro tenants’ homes at the cost of \$15-\$25, when already they are squeezing all the rent possible.”¹²³ More than this, the TVA officials’ inability to stand up to entrenched local elites, who sought to prevent the distribution of power disturbed Davis.

After first NAACP report, Chairman Arthur Morgan blasted Houston and Davis for “an improper selection of the facts,” and expressed dismay that the authors did not see that “lasting accomplishment for Negroes could be secured by a policy of ‘inching along,’ a policy of cautious procedure so as not to raise to its highest pitch the anti-Negro sentiment in the Tennessee Valley.” Davis recognized the position Morgan had been placed in, but further understood that in order to make small gains for African Americans in a period of great possibilities, it required continual prodding of the TVA to do more. Though Morgan’s response frustrated Davis, he concluded, after multiple visits to the Valley, that Morgan “is suffering from myopia. What is the picture of the TVA for the Negro? These men [African Americans] are used to segregation and to prejudice. But they are not used to having federal funds used to extend a policy of race discrimination. Nor can they appreciate it as a friendly act that are they herded into Negro ghettos by Chairman Morgan.” Davis concluded that there was “no glimmer of hope for the Negro population in the Valley in terms of long-run social planning. Millions of kilowatt hours of electric current will be generated at a price so high that for Negroes it might just as

¹²³ Davis, *The Negro and the TVA: A Report to the National Association for the Advancement of Colored People* (1935): 27, 30.

well be lightning in the sky. For them it means no end of the drudgery, no chance for social and economic advancement.”¹²⁴ Aware of the TVA’s aspiration of reconstructing a new citizenry in the South, the NAACP believed it fell significantly short of its goal to affect change in the region in the immediate years following the passage of the Act. Without the inclusion of a crucial ten-percent of the Tennessee Valley’s residents in the grand social plan for the region, the TVA would achieve very little.

Despite the immediate shortcomings of the TVA, particularly in terms of racial equity, white residents of the Valley responded positively to the introduction of TVA power. Though farmers remained skeptical of the TVA in the beginning, “when the TVA started the construction of rural lines...they began to believe that electricity was really coming down the road.” In a telling episode, Owen, who had been working in the Washington D.C. office of the TVA since 1933, recounted a story of private power companies’ attempts to erect “spite lines” in the same region where they had once forestalled the advent of the electric age. Private power “spite lines,” often erected in the dead of night to avoid conspicuous detection by residents, hoped to claim the same electric customers they had once slighted in order to directly challenge the TVA’s authority in the region. Rather than win local residents by sheer force of will, the people of the Valley protested private power attempts to thwart the TVA. “The farmers had been spurned too long,” Owen believed. “With their wives,” she recounted, “they came out with shotguns to bar the passage of the workmen or to uproot the poles as fast as they

¹²⁴ Davis, *The Negro and the TVA*: 39-40.

were placed along the roadside. It was an effective dissent.” While river control garnered immediate attention as Norris Dam neared completion in 1936, “to the people who lived in the country nothing could rival the excitement of rural electrification...in the early years, electricity was TVA. A roadside sign reflected the total identification – ‘Farm for Sale. Have TVA.’” Residents expressed their identification with TVA power by enrolling in new local agencies and electric cooperatives that bought TVA power in large numbers. They also gathered, by the thousands “to watch the construction of the massive dams rising to control the rivers and to gape at nimble crews erecting transmission towers and stringing lines.” By the end of 1938, a mere two years after power produced at Norris Dam became available, eighty towns and cities in the Valley had signed on to buy TVA power. As Owen noted, this was “all but a score in citizen referenda.”¹²⁵

The city of Tupelo, Mississippi, had become the TVA’s first and most devout customer. Electrical consumption in Tupelo homes alone accounted for a three-fold increase in the demand for kilowatt hours. While the average home in the nation consumed 802 units of power annually, Tupelo homes consumed over 2,000 units after the arrival of TVA power.¹²⁶ The case of Tupelo enthralled New Dealers as a test

¹²⁵ Marguerite Owen, *The Tennessee Valley Authority* (New York: Praeger, 1973): 27-28, 34, 37. It is worth noting that rather than distribute power at the individual level, with a bill coming directly from the TVA as a power company, the TVA sold their low-cost power to municipalities and to regional cooperatives that customers bought membership in their cooperative. Thus, in this way, the returns of the profits on the sale of power were returned to members, and cities and towns. The Rural Electrification Administration was instrumental in assisting farmers who desired to set up a power cooperative, and worked hand in hand with the TVA to procure many new contracts.

¹²⁶ Owen, *The Tennessee Valley Authority*, 38.

market. Through their experiences with Tupelo, the TVA surmised that the low cost of power in the region resulted in the expanding use of electricity, which decreased the cost of producing each unit of power. “When these rates were made available to the public,” TVA officials in the Department of Electricity boasted, “the public did not hesitate to take advantage of the services and to increase consumption.” Residential customers accounted for over seventy percent of Tupelo’s total number of electric consumers after the arrival of the TVA.¹²⁷ Though Tupelo continued to be held up as an extraordinary example of the successes achieved by the TVA, by 1938 it remained clear that the organization had solidified its influence in Valley as a whole. The visibility of TVA activities helped enhance its reputation in the Valley. The TVA, through federal government, symbolized action in a region unaccustomed to such attention.

Yet, by 1938, the South as a whole remained “the Nation’s No. 1 economic problem” for the President, even with the advent of TVA dams coming online. The President felt strongly that greater attention to precarious conditions in the South would “right an economic imbalance in the nation as a whole.”¹²⁸ Facing reelection in 1936 and keenly aware that he needed Southern votes, FDR consulted Clark Foreman, a native of Georgia and the Public Works Administration’s Director of Power. Foreman adduced that the President needed to reassure Southerners of his concern for the region, and recommended the preparation of a report designed to remind voters in the South of what

¹²⁷ “Development and Utilization of Electricity in Tupelo, Mississippi, Under TVA Power Program,” August 1934, TVA Department of Electricity, JMC.

¹²⁸ National Emergency Council, *Report on the Economic Conditions of the South* (Washington, DC: U.S. Government Printing Office, 1938): 1.

the New Deal had been doing for them.¹²⁹ Foreman's advice culminated in the *Report on the Economic Conditions of the South*, and the report's authors focused squarely on the vast natural resources in the region and the potential that harnessing those resources offered in developing citizenry and further economic advancement.

"The paradox of the South," the authors contended, "is that while it is blessed by Nature with immense wealth, its people as a whole are the poorest in the country." As a result of intense farming practices that had exploited African American labor in addition to poor white tenant farmers, the soils of the South had been badly damaged, or "gullied and washed away...ruined beyond repair." Land tenure issues further hindered both environmental and social problems. "The tenant has no incentive to protect the soil, plant crop covers, or keep buildings in repair" the authors surmised. Rather, "on the contrary, he has every reason to mine the soil for every possible penny of immediate cash return." The amount of fertilizer required to rehabilitate eroded Southern lands cost the nation's poorest inhabitants over \$160,000,000 in 1929 alone – twice the amount purchased by the rest of the nation. Poor lands made for poor citizenry, and "these factors – each one reinforcing all the others – are causing an unparalleled wastage of the South's most valuable asset[s]."¹³⁰

As result of the environmental damage in the South, economic opportunities for Southerners had stagnated. On a prosperous Southern farm, the average annual income

¹²⁹ Patricia Sullivan, *Days of Hope: Race and Democracy in the New Deal Era* (Chapel Hill: University of North Carolina Press, 1996): 65-66.

¹³⁰ *Report on the Economic Conditions of the South*, 8-11, 46-47.

hovered around \$186. Compared to \$528 annual income for the rest of nation's farmers, Southern farmers barely extracted from the land what they had invested. With the largest percentage of tenant farmers in the nation, over fifty-three percent of the South's farmers lived on an income of less than \$73 per year. Water resources, particularly abundant in the South, also presented obstacles to public health and welfare. Many communities still lacked structural access to a water supply; poor water quality in regions close to textile mills negatively affected public health, and malaria still claimed Southern lives annually. Coupled with the inability to extract a living from the land, the highest birth rates in the nation and the lowest income per capita, many Southerners who could migrate to find work elsewhere did. Problems in the South created by the racial caste system that constricted job opportunities for blacks forced them to look for employment elsewhere. "Migration has taken from the South many of its ablest people. Nearly half of the eminent scientists born in the South are now living elsewhere...one child of every eight born and educated in Alabama or Mississippi contributes his life's productivity to some other state," the report's authors lamented.¹³¹

More shockingly, a study of one Southern community showed that women past middle-age and on relief rolls headed over thirty percent of homes.¹³² Men's low-earning potential both on the farm and in industry - and sometimes both at the same time - forced an economic burden onto women and children. "In agriculture," the report noted, "because of poor land and equipment, entire families must work in order to make their

¹³¹ Ibid., 13-22.

¹³² Ibid., 22.

living.” In the cotton and other textile mills, women worked upwards of fifty hours per week only to earn fewer wages than a man working similar hours. They also earned significantly less than working women in similar trades in other states. In sum, low wages for women meant “low living standards, insufficient food for many, a great amount of illness, and, in general, unhealthful and undesirable conditions of life.”¹³³ Despite the recent presence of the TVA in the region and the influx of federal dollars continued to mount, the *Report on the Economic Conditions* presented many remaining obstacles to cultivating a citizenry in the South. Tackling the persistent problems in the South would require the TVA to address these issues.

In response to the Report on the Economic Conditions, Owen set to work compiling a report about the TVA’s cognizance of the problematic situation in the South.¹³⁴ “The program of the Authority,” the report relayed “has been actively directed toward a study of many of the social and economic problems growing out of these conditions.”¹³⁵ Regarding soil quality, the TVA’s soil testing and fertilizer demonstration programs, one of the Muscle Shoals nitrate plant’s original purposes, dispatched agricultural extension agents to help farmers conserve soil. “Twenty-three thousand farmers in 19 states, eighteen thousand of them in the Tennessee Valley, are directly

¹³³ Ibid., 41-44.

¹³⁴ While the author of the report is not noted in the TVA files kept on the *Report on the Economic Conditions of the South*, Owen took part in compiling data for the response. She would have had this information readily available to her in order to answer questions from legislators, the President, and the public as part of TVA’s response to the report. The copy edit is also in her script. See “TVA Cognizance of the Economic Conditions of the South and its Contributions Toward Their Improvement,” undated, TVA Corporate Library, Knoxville, Tennessee. [Herein referred to as TVACL.]

¹³⁵ “TVA Cognizance of the Economic Conditions of the South,” TVACL, 1.

engaged on their own farms...in testing and demonstrating the use and value of the new TVA phosphates on soil protection crops,” the TVA boasted. Placing emphasis on education, agricultural land grant colleges studied the effects of planting legume crops in order to increase soil fertility. The TVA also helped to implement a terracing and contour farming program, designed specifically to trap eroding soils on hilly terrain that would have washed into the river basin, thereby blocking dams. To further prevent erosion, the TVA helped to slow deforestation rates in Tennessee around Norris Dam from seven-tenths an acre per year to two-tenths an acre per year, and aided in the increase of efficient use of agricultural land. By planting over 42,000,000 trees on severely eroded land as “an aid to soil conservation and watershed protection,” the TVA worked with the CCC to improve soil and water quality.

Beyond soil quality, the TVA’s response to the Report on the Economic Conditions emphasized its contributions in improving water control. The TVA dam system promised to not only control flooding in the Tennessee Valley, but also to abate the Mississippi River’s catastrophic flooding as well by controlling the amount of water released into it during seasonal variation.¹³⁶ Though catastrophic flooding could not be eliminated in the entirety of the South, TVA dams trapped water into reservoirs at points along the entire watershed to create a constant supply of hydroelectricity.

Though the TVA had remedied many of the environmental problems plaguing portions of the South, it also believed it had a beneficial impact on the social problems

¹³⁶ Ibid., 8-13.

raised by the Report of the Economic Conditions. A multipurpose dam development necessitated vast amounts of labor, not only in building but also in administration. It also created dormitories for single white male employees, single-family dwellings for white families with modern amenities for the families of male employees to live in, recreation areas for play, schools for elementary education as well as adult education, community gardens for growing food, hospitals for the infirm, and roads and highways. It offered relocation assistance, job training, and funding to those families whose residences lay in the path of newly constructed reservoirs.

Most importantly, its labor pool consisted largely of Tennessee Valley residents. By 1939, the TVA employed nearly 600 “college men under 27 years of age” who largely hailed from the South. More importantly, its power program had been designed to “serve as an incentive to hold the South’s young people at home, instead of being forced to migrate to the larger cities or to northern industrial areas in search of opportunities for better living.” The Authority also held firm to its belief that it equitably employed African Americans and paid them the fairly for performing jobs similar to whites, though Davis’ early investigations into these matters called the TVA’s claims into question. Praising their employment policies for reducing “some of the undesirable effects of increasing competition for jobs between Negro and white workers during periods of unemployment,” the agency failed to see that it played any role in circumventing progress

for the Tennessee Valley's black residents. Rather, it believed that it "added greatly to private income," and lightened the burden of those on the relief rolls in the region.¹³⁷

Further still, the TVA took steps to improve the health of the Valley's residents, in order to facilitate their social goals. Sickness and disease, particularly from malaria, threatened to undermine the social good that came from improved soil quality, improved waterways, generation of hydroelectricity, and the extension of jobs. Aware that stagnant pools of water created by reservoirs led to greater incidence of malaria, the TVA embarked on one of the earliest malaria control projects in American history. By constructing drainage ditches, by fluctuating water levels in reservoirs in order to control mosquito breeding grounds, and through experimentation with new mosquito eradication chemicals, the TVA believed it had "the best balanced and most expertly trained staff engaged in the study of this problem anywhere in the South."¹³⁸ So as not to designate special attention to malaria at the risk of ignoring communicable diseases, the TVA even claimed to possess a "carefully planned syphilis control program," citing a perfect

¹³⁷ Ibid., 16-17.

¹³⁸ One TVA promotional movie follows a t-shirt clad, mosquito eradicating team of men in fishing boats as they spray copious amounts of a "harmless" chemical on Wilson Lake, and on themselves. Though it is unlikely that the mosquito control substance was DDT, it is also unlikely that the substance was as harmless as the movie's narrator declared. Mosquito eradication chemicals in the 1930s likely consisted of leaded arsenics used alone, or jointly with a substance called paris green, a doubly toxic substance made up of copper arsenate and copper acetate. See, *A National Program in the Tennessee Valley*, produced by Tennessee Valley Authority, 36 min., 1936. On World War II mosquito elimination programs, see Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring* (New York: Cambridge University Press, 2001).

record of treatment in cases where infection was found.¹³⁹ If the TVA had overlooked something, it had been by design rather than by callous error.

The TVA response to the Report on Economic Conditions highlighted their efforts in the Tennessee Valley to affect every aspect of life in the South. From quality controls for land and water, to employment for men, race relations, housing, hydroelectric infrastructure, public health, and education, the TVA ensured that it left no stone unturned. Though it would take time before ameliorated conditions would become visible, at every juncture the TVA had interjected itself into the lives of the residents of the Tennessee Valley in an effort to reconstruct the Southern landscape and bring inhabitants in the region into the federal government's fold. It had achieved successes unimaginable to the Progressives who once advocated for federal authority over the nation's natural resources, and solidified its presence the Valley.

In their response to the Report on the Economic Conditions, the TVA remained eerily silent, however, on assessment of the plight of Southern women. For an agency dedicated to promoting household electrification to women, this perhaps spoke louder than any factual information they could have provided. Noting that the few women employed by the TVA, "chiefly in clerical and subprofessional occupations," earned the same as men in similar positions, the TVA's organized response failed to mention the steps it had taken to remedy conditions for women in Southern agriculture and

¹³⁹ "TVA Cognizance of the Economic Conditions of the South," 23-25.

industry.¹⁴⁰ Compared to the multipurpose conservation plans laden with social overtones, the TVA instead envisioned a different role for women, one whereby reducing women's drudgery on the farm and in the home would free them to cultivate their own personal interests and focus on raising children. In their most radical feat of social engineering yet, the TVA began refining its efforts to promote household electrification to women. Through the Electric Home and Farm Authority, a subsidiary corporation of the TVA, reformers hatched a plan to integrate women's traditional space in the home into the New Deal. To do this, they had to start in the kitchen.

¹⁴⁰ Ibid., 31.

CHAPTER THREE

“Electricity for All”:

The Electric Home and Farm Authority, Gender, and the Environment, 1925-1942

By most accounts, Mattie Randolph was a terrible housewife. Her seven children were frequently found in want of a bath, suitable clothing, and toys or other wholesome amusements. She dipped snuff, chewed tobacco, and boasted of her spitting skills. Though Randolph had completed the second grade, she could not read a newspaper, and had no use for their information in any case. The Randolphs outfitted their one-bedroom log cabin along the Powell River in Tennessee with the barest furnishings. The night sky was visible through the cracks in the cabin’s roof, and cold air leaked through the holes in the walls and the floors. In the lean-to kitchen that her husband, Jim, had attached to the house, Randolph prepared meals over a wood-burning stove, then nine people hovered over a table, without chairs, as they ate. The family lacked any toilet facilities, and a visitor once remarked that four-year old Wanda “proceeded to use the front porch for this purpose.”

Mattie Randolph, “a small, stocky, fiery, brown-eyed woman,” purchased thirteen acres from her landlord in 1926 and owned the house and the land on which it was situated. Randolph may not have had much beyond her land, except pride. Jim Randolph, a quiet man who once worked in the coalmines, deferred to his domineering wife on most issues, “having little to say on any family problem, even when asked ‘what do you think,’ by his wife.” Nothing and no one could entice Mattie Randolph to move

from her land situated in the sleepy hollow, not even the Tennessee Valley Authority, or the high reservoir waters from the Norris Dam that threatened to engulf their dilapidated cabin.¹⁴¹

For the Tennessee Valley Authority, Mattie Randolph was an “A-1 bluffer and problem case.” Antagonistic toward the TVA from the beginning, Randolph thwarted their every overture to remove her from her property and relocate the family on higher ground. “I’ll stay here until the water comes up and flow down with it when it does,” she declared to Greta Biddle, the TVA consultant assigned the task of relocating the family before the area was purposefully flooded. Biddle made several attempts to persuade Randolph to accept the TVA’s \$530 cash offer and relocation assistance. Each subsequent visit proved a more exasperating experience than the last. TVA officials believed Mattie Randolph rather enjoyed the “notoriety she has gained and the trouble she has caused.” Biddle surmised that, “neither she nor any of her family have any idea as to the meaning of the TVA, why it came in and broke up her community, why they have moved her neighbors away, why they have closed the gates of the ‘darn dam’ and backed the water over her garden at the time when she wanted to pick her beans.”¹⁴²

Some in the TVA believed Randolph held out for more money because she believed her property worth more than the TVA had offered to pay. She stubbornly refused higher offers and the new home on higher ground that the TVA offered to entice

¹⁴¹ Tennessee Valley Authority, “Notes Relating to the Relocation of the Randolph Family,” Family Removal and Population Adjustment Files, Compiled 1937-1948, National Archives, Atlanta, Georgia.

¹⁴² Tennessee Valley Authority, “Notes Relating to the Relocation of the Randolph Family.”

her to move. Most irritatingly, she balked at the TVA's offer of providing a home with electricity. "There is a real lack of family capabilities to achieve any progress. They have had very limited experiences, do not want a better place to live, or electric lights, or a bathroom or any other high-falutin' thing. Their needs are great, but their desires have been thwarted," Biddle lamented.¹⁴³ That Randolph could not – or would not – aspire to join the ranks of the middle class proved unthinkable to Biddle, who pitied Randolph's situation. To TVA officials, middle-class outsiders in a unfamiliar region, it was inconceivable that a housewife could not desire a new home, electric lines, and new electric appliances. Randolph flew in the face of the kind of progress TVA officials attempted to spread in the Tennessee Valley in the 1930s. If she could not keep pace with progress, she risked being caught literally in the undercurrent of the grand social experiment the TVA endeavored to undertake. In the end, the TVA's plans would march along, whether Mattie Randolph marched with them or not, signaling the federal government's preoccupation with, and determination to, use the project to produce a new type of citizen.¹⁴⁴

¹⁴³ Tennessee Valley Authority, "Notes Relating to the Relocation of the Randolph Family."

¹⁴⁴ The TVA had the Randolph's property condemned in January 1935 by the Tennessee courts in order to remove the family. The TVA was granted an order of possession in August 1935. Randolph refused the money she was legally entitled to after the condemnation suit, quipping that, "if they want to beat me out of it, they might as well take it all. I ain't going to take a cent of it." As reservoir clearance men came to survey the property, Randolph threatened them with her shotgun. It is not known what became of Randolph and her family. In the last TVA documented contact with the Randolph family, December 1935, Mattie Randolph continued to occupy her condemned home. The gates of Norris Dam closed three months later. Ibid.

In designing a conservation scheme that harnessed the power of the area's rivers, trapping water into large reservoirs and dislocating those on the marginal floodplain, the TVA enshrined the ideals of progress and modernity. Reconstructing the landscape, however, would be rendered meaningless unless conservation could also reconstruct the lives of the people in the Valley. In terms of the TVA's social aims for the Valley's inhabitants, damming water eased unpredictable and catastrophic flooding, but the resulting electricity generated had the power to transform lives. New Deal visions of modern life and citizenship embraced a certain social construction of twentieth century womanhood, and Mattie Randolph was its antithesis. But as much as the TVA needed to transform the raw power from the river into electricity, it had to convert women to the idea of womanhood it promoted. The key, they ascertained, lay in persuading women to consume electricity.

In distributing power, New Dealers sought to create a national yardstick for electric utility rates. For years, private power companies had complained that they could not lower rates until customers demanded more electricity; and all the while, customers complained that they could not consume greater amounts of electricity until power companies lowered rates. The TVA stood to remedy both situations by deliberately keeping electricity rates low in an attempt to thwart barriers to full participation in an electric lifestyle. New Dealers hatched a plan to position women as the primary consumers of electricity in the home. The Electric Home and Farm Authority (EHFA), adopted via Executive Order in 1934, was a corporation under the auspices of the TVA

and direct control of its Board of Directors. Though the slogan of the EHFA cited “Electricity for All” as its mission, the electric appliances it subsidized were not. Rather, the EHFA provided distinctly gendered appliances first in the Tennessee Valley, and later nationwide.

The EHFA sought to expand the economy by putting more men back to work in factories and to increase power consumption. Inherent in the prioritizing of men’s employment to salvage American manhood was re-domesticating women in a way that answered the crisis by restoring proper gender roles to the family and the home. Putting American men back to work in factories making household appliances, New Dealers restricted women’s lives outside of the home by subsidizing appliances in the all electric home. Women like Mattie Randolph who dominated her husband and her home did not have a place in this ideal. Her inversion of gender norms made her appear beyond assistance. The all-electric home promised to free women to pursue hobbies and to focus on childrearing and community welfare. As social engineering, the TVA hinged its plans on converting women to the idea of proper womanhood by cultivating a desire for a more homogenous, middle class lifestyle that government-sanctioned appliances offered.

Though New Deal efforts to reconstitute women’s power in the home had a long tradition in the evolution of Progressive thought, the subsidized all-electric home was decisively novel. Beginning in the Progressive Era, reformers like Gifford Pinchot, Theodore Roosevelt, and Morris Llewellyn Cooke had paid particular attention to the plight of rural women. Men in the public sphere saw it as their civic duty to ease rural

women's drudgery and bring to them some of the industrialized benefits that had largely accrued to men on the farm and in the factory. Branding themselves chivalrous men who served a function for the public good, their fixation on women's drudgery began as a way to improve country living, known as the Country Life movement, and it intended to ease the burden on cities fraught by industrialization that also had to contend with a steady flow of migration from rural areas. With further advances in electrical innovation and a push for Giant Power coming out of the conservation movement, reformers like Cooke began contemplating ways to increase the consumption of electricity in order to revolutionize the countryside. His efforts as an engineer and authority on matters related to electrification garnered him much attention, and resulted in an unlikely alliance with the Worker's Education Bureau (WEB) and the American Federation of Labor (AFL) who also sought to reform women's domestic lives through greater electrification.

Although the EHFA focused on the benefits of household technology for women, their efforts further served to undermine a biological power regime in which women played a tangible role. Before electricity, rural women relied on readily available natural resources in their own locales to perform work. Cooking and cleaning required fuel to fire hearths and wood-burning stoves, as well as the procurement of water from springs and wells, and plenty of expendable human energy. In displacing biological power, such as wind, sun, and human toil, the shift toward commodified, invisible energy marked a distinction between women and nature that had previously not existed. As consumers of invisible energy, women divided their work in new ways, more removed from the

environment. The desire for women to increase their consumption of power was deliberate, but the division that invisible energy forged between women and nature produced subtle effects.

Gendered relationships with nature have seemingly been difficult for scholars of environmental history to assess, which is evident in the dearth of literature on gender and environment. Foremost in the field, Carolyn Merchant's *Death of Nature* seeks to explain how the changes wrought by the scientific revolution commodified nature and subjected women. Conceptualizations of nature before the scientific revolution were organic, and "central to the organic theory was the identification of nature, especially the earth, with a nurturing mother; a kindly, beneficent female who provided needs of mankind in an ordered, planned universe."¹⁴⁵ This cultural framework, Merchant argues, persisted for centuries until the scientific revolution in the seventeenth century redefined nature as mechanistic, leading to increasing exploitation of nature for monetary gains. However, in material analyses of nature in flux, Merchant is far less effective.

Several social histories look at the interpretation of technologies in the home and women's economic activities in the process. Though there is no body of work examining the Electric Home and Farm Authority, Ruth Schwartz Cowan's study of the partial industrialization of technology designed for the household illustrates that technologies intended to reduce women's drudgery in the home actually created a different kind of work, and more of it, for housewives. According to Cowan, laborsaving devices did

¹⁴⁵ Carolyn Merchant, *The Death of Nature*, 2.

reduce drudgery, but not women's labor. The housewife, Cowan notes, frequently did "more work herself than either her mother or grandmother had," as technology supplanted hired help in the home.¹⁴⁶ Considering the social implications of technology in rural areas that had less frequent access to hired help, Ronald Klein illustrates how rural families interpreted electric technologies and adapted them for their own use. Once technology arrived on the farm, women adapted technologies like the party-line telephone to suit their own needs, using the device to listen in on neighbors' conversations in order to keep pace with current events.¹⁴⁷ Though Cowan indicates that technologies burdened women with more domestic work, Kline's work illustrates the ways that women sought to make life on the farm easier and tolerable.

LuAnn Jones, focusing on the South, tackles the myth of the overburdened, rural housewife, arguing that women created alternative economic networks in dire times that provided a constant source of extra income for the family. By raising chickens for eggs, churning butter, and selling produce at markets, autonomous activities also brought some financial independence for Southern women in the 1920s and 1930s.¹⁴⁸ Yet, we still need attention to the structural system that sought to bring about change in women's lives.

Elaine Tyler May claims the remaking of domestic women resulted from World War II

¹⁴⁶ Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983): 89. Susan Strasser provides another discussion of the history of housework, *Never Done: A History of American Housework* (New York: Pantheon Books, 1982).

¹⁴⁷ Ronald R. Klein, *Consumers in the Country: Technology and Social Change in Rural America* (Baltimore: The Johns Hopkins University Press, 2000): 26, 47.

¹⁴⁸ LuAnn Jones, *Mama Learned Us to Work: Farm Women in the New South* (Chapel Hill: University of North Carolina Press, 2002): 14.

and the transition to a peacetime economy after the war. Men returning from the front lines needed jobs, and war manufacturers required new outlets and new goods to be produced.¹⁴⁹ However, the changes wrought by the EHFA suggested that the idea of womanhood embraced after 1945 had been cultivated during the 1920s and 1930s.

Women had long played a central role in the idea of promoting electricity, and the particular problems that rural women faced in the early twentieth century infused the rhetoric that New Dealers used to push consumption by 1933. The 1911 *Report of the Commission on Country Life (RCCL)*, commissioned by President Theodore Roosevelt (TR) before the end of his term, paid particular attention to the plight of rural women across the nation as reformers sought ways to thwart rural to urban migration and ease social tensions wrought by industrial life. The authors of the *RCCL*, Gifford Pinchot among them, realized “that the success of country life depends in very large degree on the woman’s part,” and “made special effort to ascertain the condition of women on the farm,” to determine methods to reduce the perceived drudgery in women’s lives. Problems facing early twentieth century farming communities affected men and women alike, but, “whatever general hardships, such as poverty, isolation, lack of labor saving devices, may exist on the farm, the burden of these hardships falls more heavily on the farmer’s wife than on the farmer himself. In general her life is more monotonous and

¹⁴⁹ Elaine Tyler May, *Homeward Bound: American Families in the Cold War Era* (New York: Basic Books, 1999).

more isolated, no matter what the wealth or the poverty of the family may be.”¹⁵⁰

Progressive men singled out rural women as a group in special need of assistance.

The idea that, “the woman must have more helps,” so that she could be freed to devote time to “serve the community by participating in its vital affairs,” dominated Progressive thinking about gender and technology in the early twentieth century. TR placed great emphasis on improving rural conditions for women in the countryside. “Whatever will brighten the home life in the country and make it richer and more attractive for mothers, wives and daughters of farmers should be done promptly, thoroughly and gladly,” he advised, adding that, “there is no more important person, measured in influence upon the life of the nation, than the farmer’s wife.”¹⁵¹ TR’s romantic view of early twentieth century womanhood privileged the status of rural women, placing special importance on their maternal role. To aid rural women in their chores, *RCCL* authors argued that the “development of a creamery system over large sections of the country has relieved the farmer’s wife of a heavy burden,” while, “community laundering and other work could be done in an establishment connected with the creamery,” to decrease women’s labor. Responding to the *RCCL*’s suggestions, Congress enacted the Smith-Lever bill in 1914 that sent domestic agricultural extension agents into the countryside and educate women about public health, cooking methods, sewing, and other new technologies that would ease the farm wife’s burden. While never specifically mentioning electricity, TR and the *RCCL*’s authors believed that

¹⁵⁰ *Report of the Commission on Country Life*, (New York: Sturgis & Walton Company, 1917): 103 - 104.

¹⁵¹ *Report of the Commission on Country Life*, 44, 108.

“conveniences for outdoor work [for men] are likely to have precedence over those for household work,” and however policy makers could assist in providing conveniences for women ought to be pursued.

Among the earliest promoters of power, Morris Llewellyn Cooke had spent a great deal of time contemplating the myriad ways that reformers could extend greater lengths of electric line into homes. Cooke, an engineer, had spent his early career as an economic advisor to Pinchot during his terms as Governor of Pennsylvania in the 1920s and 1930s, and on Franklin Roosevelt’s Power Authority of the State of New York. He devoted his life to studying methods of electrical transmission and the social implications of power. The notion of efficiency consumed him and he had studied Frederick Winslow Taylor’s methods as applied to industry.¹⁵² It irked Cooke that the countryside in his native state, Pennsylvania, was scarcely dotted with electric lights and lines, and he became convinced that greater efficiency in electrical distribution would result from greater consumption. Looking north to Canada, Cooke realized that to bring down the rates of electricity to the affordable rates the Hydroelectric Power Commission of Ontario offered, rural areas needed more customers who consumed more power.

With Pinchot’s patronage, Cooke embarked upon a study of the possibilities for Giant Power in the 1920s. To the housewife, Pinchot believed, electricity, “means the comforts not only of electric lighting, but of electric cooking and other aids to housework

¹⁵² Frederick W. Taylor and Morris Cooke served together on the executive board of the American Society of Mechanical Engineers (ASME) between 1906-1907. Taylor forced Cooke, the secretary, out before the end of his term as President of ASME. See William Jaffe, *L.P. Alford and the Evolution of Modern Industrial Management* (New York: New York University Press, 1957): 34.

as well.”¹⁵³ His efforts as governor of Pennsylvania resulted in the *Report of the Giant Power Survey Board*, which sought ways to introduce electricity into more homes by interconnected systems of production, transmission, and distribution with centralized oversight. Cooke, his trusted advisor and author of the *Giant Power Survey*, concurred with Pinchot’s belief that the “coming of electrical development will form the basis for a civilization safer, happier, freer, and fuller of opportunity than any the world has ever known.”¹⁵⁴ Creating opportunities for the cultivation of a higher form of citizen would stem from wider dissemination of electricity. When Cooke delivered the survey to Pinchot in 1925, Pinchot remarked, “I do not believe if you live to be a hundred you will ever do another piece of work, or that if I live to be a hundred I shall ever be associated with another piece of work of larger significance.”¹⁵⁵ While it was the first significant study of electricity undertaken by Cooke, it would not be the last.

Determining ways to make electricity cheaper so that more people could afford monthly service bills, Cooke joined with uncommon allies on a project designed to target women as the primary consumers of energy in the home. Shortly after the publication of the *Giant Power Survey*, Morris Cooke received a letter from Spencer Miller, the President of the Worker’s Education Bureau (WEB), requesting his assistance. The WEB, a service organization devoted to adult education for industrial workers, received

¹⁵³ Morris Cooke, *Report of the Giant Power Survey Board to the General Assembly of the Commonwealth of Pennsylvania* (Harrisburg, PA: Telegraph Printing Co., 1925): v. [Herein referred to as *Report of the Giant Power Survey Board*.]

¹⁵⁴ *Report of the Giant Power Survey Board*, xiii.

¹⁵⁵ Letter, Gifford Pinchot to Morris L. Cooke, 18 February 1925; Papers of Morris L. Cooke, Franklin D. Roosevelt Library, Hyde Park, NY. [Herein referred to as MLC]

financial support from the American Federation of Labor (AFL). For some time, Miller and AFL President William Green had been cooperatively pondering the idea of commissioning a study of household electrification. Green, the successor to the late and long-time AFL President Samuel Gompers, expressed a “deep interest in this work,” and pressed Miller to take the preliminary steps to obtain information on reducing women’s drudgery in the home. The AFL’s commitment to the family wage system underscored their efforts to aid women in the home. As long as men could earn enough in industrial jobs to support their wives and children at home, organized labor did not need to consider working women. Instead of pressing for the inclusion of women in craft unions and furthering rights for women in the workplace, the AFL had supported the family wage principle in opposition to higher wages for women, in effect thwarting some of the impetus behind women’s labor organizing efforts.

The AFL had never been consumed with women’s issues, and had a rocky relationship with women in organized labor. As Sophonisba Breckinridge, author of the study of women’s public lives commissioned by the President’s Research Committee on Social Trends, diplomatically put it, “the organization of women in industry did not play a large part in its activities.”¹⁵⁶ By 1925, only one women’s trade union peripherally associated with the AFL. Because the AFL’s membership was composed of craft unions of mostly skilled and semi-skilled, unskilled workers - largely women and people of color - did not qualify for inclusion. The AFL seemed to evade the issue of full inclusion of

¹⁵⁶ Sophonisba Breckinridge, *Women in the Twentieth Century: A Study of Their Political, Social and Economic Activities* (New York: McGraw-Hill Book Company, Inc., 1933): 121.

women into its member unions by broadly encouraging the organization of women workers in theory, but doing little to make it a reality.¹⁵⁷ Perhaps one of the greater ironies of the AFL's interest in promoting household electricity lay in the fact that steam-power introduced into American textile industry in the early nineteenth century had induced many women out of the home and into the labor workforce.¹⁵⁸ A century later, the AFL sought methods of introducing power into the home to persuade women to stay there.

Yet, as a labor matter, protecting “women both within industry and within the home,” spurned Green's interest in household electrification.¹⁵⁹ In June of 1925, the two men brought seasoned power veteran Cooke into their fold. The WEB and AFL, Miller's letter explained, sought to “undertake a special piece of research concerning the whole problem of the application of power to labor-saving devices in the home.” Labor needed a person experienced with power issues in order to guide their research project, and felt that Cooke, because of his “unique service as director of the Giant Power Survey,” would make the perfect candidate.¹⁶⁰ Cooke jumped at the opportunity.

¹⁵⁷ The National Women's Trade Union League (NWTUL) joined forces with the AFL in 1908, but its members were denied representation on the Executive Council, bureaus, boards, and committees. Only two of the AFL's affiliate organizations accepted women as members: the Cigar Maker's Union, and the Typographical Union. See Alice Henry, *Women and the Labor Movement* (New York: Macmillan Company, 1927): 98. See also Philip S. Foner, *Women and the American Labor Movement: From Colonial Times to the Eve of World War I* (New York: The Free Press, 1979): 214, 255.

¹⁵⁸ See Henry, *Women and the Labor Movement*, 37-39, for discussion of steam-powered mechanization in industry, and the increase in numbers of women in the industrial workforce.

¹⁵⁹ Letter, William Green to Spencer Miller, 18 June 1925; MLC.

¹⁶⁰ Letter, Spencer Miller Jr. to Morris L. Cooke, 1 July 1925; MLC.

Though Cooke was undoubtedly familiar with the labor organization, he scarcely made mention of the problematic relationship between the AFL and women's organizations. The proposed WEB-AFL research study that Cooke spearheaded endeavored to discover "ways in which drudgery in the lives of women may be reduced and ultimately eliminated – as has so largely happened in the lives of men."¹⁶¹ For his part, Cooke never questioned the motives lying beneath the veil of waging war on drudgery. To him, the central question that had plagued him since embarking on the Giant Power study was encouraging greater use of electricity by any means possible in order to more evenly distribute its load and decrease overall cost to the consumer. "Electricity in the home must be made free – of course with a freedom of its own," Cooke stressed, noting, "we must work away from the point of view where we use it sparingly...we must learn to use it to substitute it for human labor."¹⁶²

For Cooke, men had been largely rescued from drudgery through mechanization and industrialization, while women toiled in "unnecessary and burdensome grind."¹⁶³ Men's drudgery in rural areas had been reduced by the introduction of tractors and other equipment for the farm. Farm equipment could be run directly on diesel or gasoline, without the need for electricity. The only way to increase consumption of electricity in the home, therefore, was to market its benefits to women and to design appliances that

¹⁶¹ Morris L. Cooke, "Memorandum on Electricity in the Home," 7 November 1925; MLC.

¹⁶² Cooke, "Memorandum on Electricity in the Home." [Emphasis in original.]

¹⁶³ Letter, Morris L. Cooke to Mrs. Fanny Hall, 17 July 1917; MLC.

women could use frequently during the day, when the smallest amounts of energy in the home were typically used.

No task underscored women's drudgery more than laundering. Washday, generally a Monday, was the most particularly dreaded task in the life of white housewives. The travail a housewife endured to wash an entire household's dirty clothing produced in a week seemed daunting. As laundry piled up and became cumbersome, housewives of means frequently turned to hired help to meet their laundering needs. African American women took in laundry as both a source of economic freedom and to enjoy the independence that working from home provided.¹⁶⁴ As the process of washing involved obtaining water, boiling water, adding hot water to clothes for soaking, wringing, scrubbing, rinsing, and wringing again, housewives with means frequently employed outside laundering assistance. In 1914, white women with means generally paid between \$30 and \$40 per year to a laundress who came into the home to help with washday.¹⁶⁵ In fact, hiring a laundress remained a high priority for many women, even if they could scarcely afford it, signifying both class and racial divisions in household tasks.

In order to bring women into the fold of electricity's benefits, the WEB-AFL study spearheaded by Cooke sought to investigate appliances and usage, their operating costs, electrical wiring in the home, and electric cooking studies. "If the housekeepers of

¹⁶⁴ See Tera Hunter, *To Joy My Freedom: Southern Black Women's Lives and Labors After the Civil War* (Cambridge, MA: Harvard University Press, 1997): 56.

¹⁶⁵ Cowan, *More Work for Mother*, 30.

the nation (and of the world) are to be relieved of unnecessary drudgery,” Cooke believed, their research should also determine the “time consumed unnecessarily by present methods,” and “sanitary and health benefits not related to time.”¹⁶⁶ Describing the WEB-AFL study as a “campaign with social amelioration as the moving force,” Cooke envisioned his role in the project as a facilitator who enabled women’s colleges, unions, and clubs to “lead along a broad front in forcing this far-reaching reform.” Noting that “of course it will be necessary to utilize ‘mere men’ – engineers et al – in technical and other ways,” Cooke determined that his role in facilitating women to relieve their sisters from the bonds of drudgery was “a modern type of chivalry.”¹⁶⁷

In sanctioning, and perhaps even funding, women’s colleges and organizations already working on home economics issues in order to facilitate a wider discussion of power in the home, Cooke reached deep into his list of contacts to drum support for the study. Receiving favorable responses from women’s colleges like Bryn Mawr, organizations like the League of Women Voters, the Department of Labor – Women’s Bureau, as well as female friends and associates, the study proceeded. However, for reasons unknown, the AFL, who owned the rights to the research and any results of the study, never published it. If Cooke’s contract work with the WEB and AFL had ended by 1926, his work promoting electricity in a tangible way had only begun. In 1933, President Franklin Roosevelt appointed Cooke head of the Rural Electrification

¹⁶⁶ Cooke, “Memorandum on Electricity in the Home.”

¹⁶⁷ Letter, Morris L. Cooke to Mrs. Fanny Hall, 17 July 1917; MLC.

Administration (REA), and later to his National Power Policy Committee to unify power policy matters, particularly in regard to domestic consumers.¹⁶⁸

The REA, with a mandate to advance the electrification of the countryside throughout the nation, shared many similar goals with the TVA. Both ascertained that their purpose lay in increasing the consumption of electricity, though the TVA's mandate ended outside of the Valley's borders. In both cases, the imperative for cheaper and more readily available electricity guided the organizations. The ultimate goal of both aimed to affect social change rather than to merely provide access to a service. To David Lilienthal, the director of the power program at the TVA, "electricity is not just a commodity to be bought like groceries. To most people it is a symbol, a symbol of freedom from drudgery, a symbol of a new way of living. Electricity is a symbol as the flag is a symbol."¹⁶⁹ Convincing people that electricity represented more than a single, dangling light bulb, Lilienthal imbued electricity with near mythical characteristics. Electricity brought "new and incalculable forces into play, forces that will determine the kind of country we will live in a decade or two hence." For the REA and the TVA, the success of their engineering and social experiments depended almost entirely on women as consumers of energy. However, the relationship was far from one-sided.

¹⁶⁸ Letter, Franklin D. Roosevelt to Morris L. Cooke, 9 July 1934; MLC.

¹⁶⁹ David E. Lilienthal, "Electricity: The People's Business. Some Fundamentals of Power Policy," (speech given before the Women's Court and Civic Conference, WI, 16 February 1938); MLC.

Since being hired by the TVA Board in 1933, Marguerite Owen, the Washington D.C. Representative to the Authority, had become accustomed to fielding inquiries from the public and from members of Congress. Her role at the TVA was magnified by her former connections to notable women's groups, as well as her prominence as a woman in a high-ranking bureaucratic career. Women across the country appealed to Owen, requesting further information on the costs associated with operating electric devices. Mrs. James Wolfe, acting director of the Democratic National Committee's Women's Division, wrote to Owen for electricity-related information to put "on an educational program designed to stimulate women's interest in government," and for lists of women working for the TVA who would be available to speak to the group.¹⁷⁰ As Owen settled into her position in the TVA, she became accustomed to answering letters from the public and from women's organizations. She also filtered information for the TVA board in Knoxville, Tennessee.

Members of Congress, intent on keeping public support for the TVA's projects as dam construction unfolded, also took liberties in interpreting what the TVA meant for women. Congressman John Ranking of Mississippi took to the floor, citing examples from multitudes of mail he had received from his female constituents. "One woman writes," Rankin boasted, "that TVA is the greatest blessing that ever came to the people of this section. She has lights in her home and garage, a radio, electric refrigerator,

¹⁷⁰ Letter, Mrs. James H. Wolfe to Marguerite Owen, 28 July 1934; Democratic National Committee – Women's Division Papers, 1933-1935, Franklin D. Roosevelt Library, Hyde Park, NY. [Herein referred to as DNCWD.] In response to Mrs. Wolfe's request for female guest speakers, TVA responded, "we have no women who are available for speaking engagements. How about men?"

electric iron, electric range, a vacuum cleaner, and a hot-water heater. During the month of March she used 82 kilowatt-hours of electricity and it cost her \$2.14.”¹⁷¹ Rankin forwarded his speech, composed of women’s letters read on the House floor, to the Democratic National Committee – Women’s Division to shore up support with his base. Noting that when electric rates had been reduced, as they had in the Tennessee Valley, “the consumption of electricity had been augmented, the use of electrical appliances has increased, women’s work has been made easier, her drudgery has been diminished, and light has been added to her life.”¹⁷² Not only did the TVA need women as consumers to succeed in achieving their goal in the Valley, they also took cues from women’s domestic appliance use to effectively market standardized appliances to women consumers, while hatching a plan to put more men back to work in the factories that produced them.

In the efforts to bring power to the rural areas, the TVA expanded its social construction project to create a more proper Southern woman citizen. FDR formalized a specific idea of rural womanhood when he signed Executive Order No. 6514, and created of an the EHFA under the auspices of the TVA. While seemingly innocuous, Order No. 6514 federally subsidized electrical household appliances, appliances designed for use by women, in order to increase consumption of electricity in the home. The EHFA encouraged women to spend money on electricity-consuming products, because of the beneficial impact this would have on the economy and in creating more jobs for men in factories. Though FDR claimed that marketing products for the family and home would

¹⁷¹ John E. Rankin, “What the TVA is Doing for the Women of America,” 15 August 15 1936; DNCWD.

¹⁷² Rankin, “What the TVA is doing for the Women of America.”

increase desire for electric lines in rural areas of the Tennessee Valley, the only appliances initially sanctioned by the EHFA were refrigerators, dishwashers, water pumps and water heaters, and electric stoves. The EHFA directors planned to extend the list to include other appliances, like the washing machine and the electric iron. But they began in the kitchen to thwart the “double barrier to the full use of electricity in homes on farms,” or, the high cost of electricity and the high cost of electric appliances.¹⁷³

For FDR, greater numbers of electric consumers would eventually lead to reduced rates, and women in the home represented the customers capable of consuming the most amount of power. Using funds from the National Industrial Recovery Act (NIRA), FDR set aside \$1,000,000 for the EHFA to finance the purchase of consumer loans that would be used to buy the goods, “to promote the wider use in homes and on farms and to supply credit for that purpose.”¹⁷⁴ The federal government would not make or sell any appliance, but it would provide the capital to back the purchase of the items through low-interest loans to the consumer.¹⁷⁵ FDR’s trusted advisors privately heralded the plan as genius, one that could become “a very broad one and if it can be popularized may contribute much to the present economic situation.”¹⁷⁶ Though some cautioned the President against restricting the types of appliances to kitchen products, all seemed to

¹⁷³ Franklin Delano Roosevelt, *The Public Papers and Addresses of Franklin D. Roosevelt: Volume II, The Year of Crisis* (New York: Random House, 1938): 529.

¹⁷⁴ Letter, Attorney General Homer Cummings to President Franklin D. Roosevelt, 18 December 1933; Electric Home and Farm Authority, Official File, Franklin D. Roosevelt Papers as President, Franklin D. Roosevelt Library, Hyde Park, NY. [Herein referred to as OF-EHFA.]

¹⁷⁵ It remains unclear where the idea for the EHFA originated.

¹⁷⁶ Letter, L. W. Douglas to Henry Morgenthau, 14 December 1933; OF-EHFA.

agree that the EHFA would increase consumption, help relieve unemployment in manufacturing regions across the country, and rehabilitate industry. Implicit in their interpretations of the EHFA lay the concept of restoring gender roles unbalanced by the economic crisis. If men went back to work, women could reclaim domestic space in the home. To ensure standards in the quality of the products and an enhanced sense of quality that the TVA branding carried, the TVA additionally guaranteed and subsidized only approved manufacturer's appliances. That FDR placed the EHFA under the direct control of the TVA, and not the Farm Security Administration or another agency, speaks to the magnitude of the federal government's project in the South. With the TVA in charge of creation of power, dissemination of power, as well as promotion of consumption of power, the federal government created links between environmental policies ideas about power and citizenship, as well as the proper role of women in society.

For the federal government, subsidization of power was new, but never before had the government been in the appliance business. Taking its cues from private power companies, the EHFA needed an effective strategy for marketing its subsidized appliances. When it came to feminizing electricity, private utility companies had already perfected the process of directly marketing electrical appliances door to door to women during the business hours of the day when men were at work. They had also discovered that marketing high-energy consuming products to women resulted in higher electrical loads for private power, and bigger bills for the consumer. As economic hardships

plagued a greater number of people during the 1930s, companies like Carolina Power and Light (CP&L) altered the policy of marketing household appliances door-to-door, and instead increased the number of CP&L owned “merchandizing outlets through which domestic customers could obtain household electrical appliances.”¹⁷⁷ Similarly, the EHFA worked with existing small appliance retailers to establish TVA-sanctioned merchandizing outlets, and took a traveling kitchen on tour throughout the Valley in order to reach those who could not, or would not, travel to them.

In addition to merchandizing outlets and the traveling TVA kitchen, Lilienthal sought the advice of advertising professionals in constructing a media campaign to accompany the unveiling of the new EHFA appliances. Hiring Young & Rubicam, a New York city company, Lilienthal designed a media campaign around female consumers. The Young & Rubicam report suggested increasing advertising by newspaper and radio, but cautioned that the first advertisements were “geared above the mass intelligence of the people of the Valley, and were, in other words, ‘over the head’ of the average prospective customer.” In their estimation, making the artwork in advertisements simpler, abridging text and increasing the copy print size, “should carry a feeling of dignity in keeping with the nature of TVA and EHFA.”¹⁷⁸ The report went on

¹⁷⁷ Jack Riley, *Carolina Power and Light Company, 1908-1958; a corporate biography, tracing the origin and development of electric service in much of the Carolinas* (Raleigh, NC: Carolina Power and Light Company, 1958): 215.

¹⁷⁸ “Young & Rubicam Report,” undated; General Correspondence, Papers of David E. Lilienthal, National Archives, Atlanta, Georgia. [Herein referred to as DELGC.] Lilienthal responded indignantly to the author’s assertion that people of the Valley were of below-average intelligence, and refused to implement their suggestions.

to suggest that a TVA Women's Club be assembled to broadcast a weekly radio program, but only if "a woman with a sweet and sympathetic voice," or proper woman, were selected for the job. In other words, "build up an air personality which is definitely the property of the TVA," the authors of the report suggested.

Though the EHFA planned to incorporate the washing machine and electric iron into its appliance line in the future, the Young & Rubicam report stressed the importance of adding them as soon as possible. "We know, for example that when the housewife does her own washing she considers this her greatest chore. A hot water heater helps her in this job, but does not get at its hardest part – the rubbing and scrubbing." Citing that in 1933, nearly nine million women used washing machines in the home, the addition of laundering devices to the electric kitchen line of appliances would only aid the EHFA in pursuit of higher levels of consumption of electricity in the home. Moreover, the washing machine could be used to displace African American laundresses in the South, freeing white women of their dependence upon other women to perform household chores.¹⁷⁹ The money white women spent to pay black laundresses could be used to pay the electricity bill. If the EHFA was going to increase domestic consumption by fifty percent in twelve months, the Valley market needed to be saturated with goods, and hired laundresses simply got in the way.

The EHFA plan exhibited few drawbacks, and drew the critique of only a few dissenters. Understandably, companies producing ice for iceboxes expressed outrage at

¹⁷⁹ "Young and Rubicam Report," DELGC.

being displaced by EHFA's refrigerators, and coal companies that used to supply the farmer's wife with lump coal for her stove or fireplace disliked new electric models that outmoded their own products. Other, more substantial criticism of the EHFA came from inside TVA's own walls. According to the women who manned the Traveling Kitchen, flyers announcing their arrival were sent out too early, appliance dealers had not been efficiently trained in sales for EHFA products, and TVA managers did not work to enthusiastically promote the events. However, the staff felt that the public reception to the EHFA appliances appeared mixed. Many residents in the smaller towns the Traveling Kitchen visited questioned the "permanency of the low TVA rates, and therefore hesitate to buy appliances until they are sure," while Mississippi residents felt as though they could not afford even the deeply discounted rates that EHFA offered on appliances. But the most problematic critique the Traveling Kitchen staff leveled at EHFA's leadership was one of supply. "We hardly see how the manufacturers can supply the demand," for appliances, one staff member observed, yet the people of Mississippi had not yet even received transmission lines or household wiring. "The rural people in Mississippi are crying out for electricity," she noted.¹⁸⁰

Nevertheless, by the spring of 1935, it was clear to all involved in the EHFA project that it had succeeded beyond their wildest imaginations. Raffling off statistics, Lilienthal claimed that "the success of this experiment in less than a year is attested by a number of facts," particularly that the Tennessee Valley region surpassed the rest of the

¹⁸⁰ "Report of EHFA Traveling Kitchen," 4 September 4 1934 – 27 October 27 1934; DELGC.

nation combined in appliances sales during the EHFA's first six months alone. In 1933, women of Tennessee, Georgia, and Alabama had purchased 31,400 refrigerators. In the six-month period from June to December of 1934 after the EHFA plan had launched, refrigerator sales more than doubled at 73,900. Whereas only 2,049 families had purchased stoves in 1933, the number jumped to 8,829 in a six-month period in 1934. Additionally, water heater sales increased from 597 to 4,332.¹⁸¹ As a result of the increased purchasing power extended by the EHFA, the number of "manhours" worked across the country jumped by 112 percent. The jump in consumption of electricity per domestic customer reciprocally increased as well. But Lilienthal's and the President's plan would not go forth without major changes to its structure.

Lilienthal, an indefatigable optimist with seemingly tireless passion for the TVA, was exhausted. Though one would have imagined Lilienthal to exhibit a triumphant attitude at having achieved many of the goals the EHFA set out to accomplish, his reaction was largely fatigued by the necessity of oversight of two major New Deal experiments. The task of implementing and running the EHFA, in addition to his duties on the Board of Directors of TVA, proved too much to handle. At the same time, because FDR had been so impressed by the successes of the EHFA program, he hesitated to let the Authority dissolve. As early as the winter of 1934, the President made mention of taking EHFA beyond the TVA's borders. Expanding the program on the national level

¹⁸¹ "Report on the Future of Electric Home and Farm Authority," 7 May 1935; OF-EHFA.

would provide a yardstick for electric utility companies and a model for appliance retail outlets.

Moreover, the overall success of the TVA program pleased FDR, and for a while, he and George Norris planned to implement regional, multi-purpose river basin construction projects like the TVA across the country. However, for a multitude of reasons mostly having to do with personalities of cabinet members inside the FDR White House, the “seven little TVA’s” would never materialize.¹⁸² If the President could not spread the TVA model across the country, harnessing the power potential of rivers from sea to sea, he resolved to settle for creating an electricity rate yardstick through a national EHFA. In order for EHFA to market appliances in a given region, electricity rates needed to fall below or meet the TVA rate, thus forcing the hand of private utility companies into reducing consumer’s rates if they desired to benefit from the appliance subsidies. If FDR could not remake the TVA in other river basins, he could at the least affect electricity rates without an act of Congress to govern utilities.¹⁸³ By enlarging the scope of the EHFA, the President could thus ensure that electricity companies across the country – private or public – conformed to TVA’s low rate structure if they desired to partake of the subsidized appliances.

The President needed new leadership for the national EHFA. He and Morris Cooke had worked together for over a decade on different conservation and

¹⁸² William E. Leuchtenberg, *The FDR Years: On Roosevelt and His Legacy* (New York: Columbia University Press, 1995): 159-195.

¹⁸³ Letter, David E. Lilienthal to Franklin D. Roosevelt, 3 December 1934; OF-EHFA.

electrification projects, and Cooke knew the field as well as anyone else. The original EHFA plan had limited its scope to Tennessee, Alabama, and Georgia, and the President had been impressed by the “psychological effect,” which created favorable attitudes toward the greater use of electricity and electric appliances in the home.¹⁸⁴ In July of 1935, FDR appointed Cooke as the first Director of EHFA as the organization prepared to roll out its national plan, allowing Lilienthal to step down from his position as the director of EHFA operations. Cooke set to work expanding not only the geographic scope of the work outlined by EHFA’s charter, but also the EHFA’s function.

Cooke saw potential in marketing the all-electric home to women across the nation, but his background at the REA also underscored the importance of providing transmission lines and household wiring to rural places across the country where minimal infrastructure existed. Cooke remained anxious to incorporate indoor bathroom fixtures into the EHFA plan. “No concerted effort,” he commented, “has been heretofore made to encourage the introduction of bath-rooms as normal features of farm houses.” He resolved to stretch the EHFA into a complete home modernization project, subsidizing the cost of household wiring, kitchen sinks, indoor plumbing, and bathroom fixtures. “The principle inducement to building these rural lines” Cooke averred, “has been the administration’s pledge to make loans to consumers for house wiring, electric appliances, and water systems so as to put up on each such line a reasonably full load as it goes into

¹⁸⁴ Ibid.

service.”¹⁸⁵ However, under the new national incorporation of the EHFA, the body received its financing from the Reconstruction Finance Corporation (RFC) and the RFC Chairman, Jesse Jones, now held a seat on the new Board of Directors. Jones impressed upon Cooke the importance of staying the course and sticking only to those domestic appliances the President had sanctioned. Cooke resented Jones’ attempt to constrict his vision and turned in his letter of resignation to the President on November 18, 1935.

Cooke’s departure from the EHFA stole some of the wind out of the organization’s sails, yet the program remained in tact. Still, without visionaries like Lilienthal and Cooke, the EHFA lacked direction. It did not, however, suffer from a crisis of public image. Even after Lilienthal and Cooke’s departures, the EHFA sold over a million dollars worth of appliances in 1936, and nearly seven million dollars worth of appliances in 1937. It grew to subsidize a full range of domestic appliances, such as washing machines, clothes dryers, irons, vacuum cleaners, milk coolers, and cream separators. It operated in twenty-one states across the nation, in cooperation with 106 municipal and private utility companies, in rural and urban markets, and nearly 140 manufacturers signed on to produce EHFA models of appliances. Emil Schram, Cooke’s successor, surmised that, “EHFA can be considered a part of the government’s power program more than an emergency relief activity. It is one of the most effective gestures of direct cooperation the government has ever made toward private utilities to demonstrate that the government’s fundamental intentions toward the private utility

¹⁸⁵ Letter, Morris L. Cooke to Jesse Jones, 18 November 1935; OF-EHFA.

industry are intelligently helpful, not destructive. For a man who once took on the private power companies in New York, and deftly outmaneuvered private power in the Tennessee Valley area, FDR now appeared conciliatory toward his one-time enemies. The success of the EHFA on the national level remained unquestioned. Appliances had reached into the pockets of rural areas across the country, and the all-electric home appeared as more than a dream.

The federal government had created more than a vast power network in the South; it had created an infrastructure supporting invisible energy in the home. The Tennessee River basin's waters that once ran to "waste," as conservationists so frequently noted in the Progressive Era, had been transformed into a household servant available at the rural woman's fingertips. The rural Valley woman no longer needed to toil to bring water from the stream to cook or launder, or wood from the forest to fuel her stove. For the first time in American history, women across the nation no longer needed to produce or procure their own household energy. Energy became invisible, and with disappeared wood-fire kitchen hearths, fireplaces for home heating, boiling laundry pots, clotheslines, and cast-irons for pressing clothing. The successes of modernization and America's vast and voracious appetite for energy owe at least partial credit to the footwork laid by the New Deal social engineers slicing up power for the people in the 1930s.

CONCLUSION

In the fall of 1944, after suffering a heartbreaking defeat in his Senate reelection bid, George Norris, the father of the Tennessee Valley Authority, died. Within months of Norris' death, begrudging public power advocate Senator Ellison D. Smith passed away; so, too, did the figurehead of the conservation movement, Gifford Pinchot. Then, in the spring of 1945, Franklin Delano Roosevelt, the man who, among other things, ended the long battle over Muscle Shoals and muscled the TVA into existence, passed away. David Lilienthal, the Chairman of the TVA Board since 1938, retired from the TVA in 1946 and went onto chair the Atomic Energy Commission. Each of these men, in ways grand and small, helped to shape the agency that still exists today. But by 1946, only one of its original champions remained. Marguerite Owen soldiered on at the TVA in her Washington D.C. office until her retirement, at the age of seventy, in 1966.

In 1973, Owen published her memoir about the TVA, its long history, and its long legacy. After thirty-three years of service, she had become the agency's authoritative figurehead. TVA Board members and Chairmen, limited by term appointments, came and went and five new Presidents had been elected during Owen's tenure. Commenting on her years in the TVA, Owen reminisced about the "days of strain, and nights when sleep was foregone that memoranda might be ready for the morning information of embattled legislators. We were the first to know of dangers threatening in Congress, the first to be advised of data required, and the first to hear the result of votes in committee

and on the floor of the Senate and House.” Crises seemed never to abate, yet “somehow they passed, one by one. Difficulties were surmounted and battles won, forgotten by all but a few participants.” Writing her history, Owen claimed the authority to define the TVA’s significance. She had been there from the beginning, when Muscle Shoals embodied a glimmer of hope for conservationists seeking to harness the river’s power. FDR changed that, and the TVA bill he requested went far further than even Norris’ plans for the Valley. Noting that, “none of President Roosevelt’s successors had the same deep interest in TVA,” Owen diplomatically emphasized that “there have been relatively few occasions for conferences between the chief executive and the Board in recent years, but, with the single exception of the periods during the Administration of President Dwight D. Eisenhower, relations between the agency and the White House have been cordial and undemanding throughout the life of TVA.”¹⁸⁶ Apart from the TVA headquarters in Knoxville, Tennessee, Owen’s presence helped continually remind the Truman, Eisenhower, Kennedy, and Johnson administrations of the import of the agency, and, by extension, the New Deal itself. At the end of Owen’s long career, the legacy of the TVA had moved beyond simply providing public power. The TVA nevertheless remained unique in a world that, by 1973, had become insatiable in its rapid consumption of power.

The TVA and her role in the agency defined Owen’s life. Her book, *The Tennessee Valley Authority*, as the title suggests, functions more as a tribute to the organization that she helped shape, and the agency that she dutifully served, than as a

¹⁸⁶ Marguerite Owen, *The Tennessee Valley Authority* (New York: Praeger Publishers, 1973): x, 54.

personal memoir. Downplaying her own significance in the TVA, Owen stressed the importance of multi-purpose conservation planning in the river basin; recounted the ways that the agency helped to improve environmental quality in the South; praised the beauty of the reservoir lakes created to abate flooding that also provided recreation areas and a spiritual connection to nature, and championed the grassroots involvement of Valley residents in making the TVA a success. Those looking for clues about Owen's life, and her personal experiences as a forgotten soldier of the conservation movement and as a woman in government service, find remarkably little about her in the pages she authored. Little else is known about Owen, the public servant who championed conservation until her death in 1983. She left no papers, not even in the TVA archives, save for a few letters she exchanged with notable men who saved them in their own records. Her depersonalized writing style has obscured her legacy. Ironically, it is Owen herself who has been forgotten in the history of the TVA.

Only the TVA employee newsletter published an obituary of Owen. Memorializing her as TVA's "link to Congress and the White House," the paper noted that, "over the years, her suggestions and advice were reflected in addresses by presidents and key members of Congress, and in statements and decisions of TVA itself." Owen's silence in the historical records speaks volumes about the selfless and dedicated public servant we can imagine her to have been. Retired TVA Chairman A.J. Wagner noted that she "had the confidence of many people both in TVA and on the Hill," yet "she was self

effacing and preferred to work behind the scenes rather than take the spotlight herself...her influence is still felt in the TVA she loved.”¹⁸⁷

More importantly, Owen’s absence from historical narrative and our collective memory is also indicative of the silent role that women environmental advocates played in the debate over conservation and federal versus private control of natural resources. Even though she would have shunned such attention, Owen’s story, along with those stories of countless other faceless, nameless women who affected change and advocated their vision for society, deserves telling. Silencing women reformers from the historical record impedes from our understanding the complex conceptualizations of the environment that they articulated.

Yet, Marguerite Owen cannot speak to the whole experience of women and conservation in the early twentieth century. One of the remaining ironies of the TVA is that even as women found a public, environmental voice in the conservation movement, the promotion of electricity emphasized women’s roles within the home as mothers and guardians of the home. In 1927, for example, the League of Women Voters studied hydroelectric power to promote the agricultural benefits to be gained from synthetic fertilizers, among other things. Synthetic fertilizers would reduce food costs for women who prepared meals in the home.¹⁸⁸ The centrality of women’s quality of life in the home remained a part of the LWV’s campaign to support Norris’ conservation plans in the Valley.

¹⁸⁷ Lee Sheppard, “First TVA ‘link’ to Washington, Miss Owen dies,” *Inside TVA*, February 22, 1983.

¹⁸⁸ Add footnote from Owen’s Muscle Shoals pamphlet.

Progressive men also understood the power of gendering of electricity. In order to extend electricity's reach into the countryside to promote higher national standards of living in rural areas, Progressive men realized that power plans hinged upon women's participation as consumers of electricity. Demand for electricity had to be generated in order to justify the abundance of supply and the low cost. And so, the TVA recruited women consumers in order to provide a constant and stable appetite for the power that it created. From the Progressive Era to the end of the New Deal, reformers who believed that a modern, national citizenry could be created from disparate rural areas consistently promoted electricity as a woman's servant. The message to women was clear: consume more electricity, and buy electric appliances that consumed even more. This proved a wildly successful strategy. While the war halted efforts to increase the consumption of electricity, and fighting a war abroad meant appliances for women took a back seat to marshalling the nation's resources into the war against fascism, the infrastructure created during the New Deal provided a backbone for post-war suburban growth.

Swiftly, by executive order, and with little fanfare, FDR terminated the EHFA program in 1942. His attention had turned to fighting Nazi and Japanese aggression overseas. He devoted the manpower that once produced electric appliances, and the financial resources that once secured appliances at decent rates, to dismantling the Axis powers. Women's labor would be needed in the coming years to staff the war effort at home. The TVA no longer needed to market its surplus power to customers; during the war the TVA was forced to supply over fifty percent of the power it generated at dams to

nuclear testing facilities at the Oak Ridge facility in the Tennessee Valley area. After the war, the TVA would have to struggle to keep up with production of enough energy to satisfy the power-hungry demands of nuclear generation, and the addition of coal powered steam plants became necessary in order to satisfy consumers' as well as the Atomic Energy Commission's desires for energy. A different day was dawning for the TVA, and, seemingly, women no longer needed to be instructed on the proper use of appliances, or to be coached into making big-ticket appliance purchases. What had once started with a simplistic goal of extending power to women in the home, to relieve their drudgery, became a complicated circle of energy production for energy production to feed the appetite of the atomic project.

Hydroelectric dams gave impetus to reservoir lake parks for recreation, created jobs, and required the development of new communities like Norris, Tennessee. The New Deal's federal dollars created an extensive electrical grid in the South where none had previously existed, not to mention the highways and roads that were built along transmission lines in order to facilitate multipurpose river basin development. While post-Civil War Reconstruction ended in 1877, reconstruction of the Southern landscape began in 1933, and with it, a reconstruction of its citizens. By 1945, the landscape had been remade and refashioned in the Progressives' vision. Flood zones in the Tennessee Valley had been transformed into electricity-generating reservoir lakes; the Civilian Conservation Corps had planted trees surrounding flood prone areas in order to abate the effects of erosion, and educational programs had endeavored to instruct farmers in soil

conservation through the promotion of synthetic fertilizers and less human-labor intensive mechanisms of farming.

The invisibility of energy produced long lasting effects. My interest in the disappearance of clotheslines from women's backyards that once dotted the American landscape spurred this study of the New Deal. Almost overnight, a simple, inexpensive solar and wind powered device used by women to dry laundered clothing for centuries became obsolete in the postwar urban and suburban American landscape. What is the greater significance of the disappearance of the clothesline, and what effect did this silent transformation have on women's lives? What can we discern through it about gendered relationships with the material environment? What answers can we uncover about the relationship between women and the environment through the examination of banished and vanishing clotheslines?

Clothesline regulation suggested something deeper about gendered relationships with the natural world, and the changing value of nature in every day lives. Evidence suggests that while clotheslines in the American landscape held symbolic value, their disappearance and the rising popularity of the dryer had a material impact on a woman's conceptualization of the natural world. As material and utilitarian relationships with nature changed for postwar American women, so too did the symbolic importance of the environment. Women, arguably more so than men, learned to attach an aesthetic value to nature when a functional relationship with it declined in the late twentieth century.

Cheap and abundant electricity, along with electric appliances, altered this functional relationship and made space for ordinary women to interpret their environment differently than their predecessors had.

Looking for answers about the post-War period requires turning to the New Deal to investigate the construction of invisible energy forms available to American women before the war. For most American women, relationships with nature were utilitarian, and that the advent of time saving household devices further transformed this relationship into an aesthetic one. Of course, the division between women and nature differed by class. The upper-class women of the “Save Hetch Hetchy” campaign that sparked Norris’ involvement with the conservation movement interpreted their environment differently than the middle class warriors of the League of Women Voters. Upper class women, who rarely procured their own fuel for cooking or water for laundering, let alone performed the tasks of cooking or cleaning, imbued nature with aesthetic meaning in the Hetch Hetchy case. The boundaries between human and nature differed for women according to class before the New Deal. Nature, as a means of providing sustenance for many middle-class women, rural women, and lower-class women prior to the New Deal, provided the tools for the family’s survival. Growing vegetables, procuring fuel and water for cooking and cleaning linked women’s lives to their environment in very tangible ways.

This aesthetic view of nature differed from the conservation-minded approach to the problems at Muscle Shoals that the League of Women Voters put forth a decade later.

League women were interested in using women's political power to protect women in the home by utilizing nature to produce synthetic nitrates and to harness the river's power. The privilege of preserving nature for nature's sake belonged to a specific group of women. After the widespread dissemination of electricity and electric appliances through the Electric Home and Farm Authority, a discernable shift occurred. In the postwar years, the League of Women Voters adopted resolutions in favor of protecting the environment, which became an important national discourse of the 1960s and 1970s. Women also played a substantive role in the 1970 Earth Day movement. Clearly, by 1966, Marguerite Owen's conservation ethic seemed out of step with a more favorable discourse of protecting an intangible environment.

Electricity formed a bridge between the conservation minded women of the League of Women Voters and the sentiment encapsulated by the environmental movement in the latter half of the twentieth century. Just as women's role in transforming the American landscape in the twentieth century has remained largely invisible, energy itself has become invisible, available with the flick of a switch. The connection between these two invisibilities is not lost on me. It lies at the heart of this scholarly inquiry.

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