democratizing the air: the
SALT LAKE
WOMEN'S CHAMBER OF COMMERCE AND AIR POLLUTION, 1936-1945

ABSTRACT
This essay examines challenges by the Salt Lake Women's Chamber of Commerce of definitions of conservation, democracy, and the role of the city through the group's efforts to enact air pollution reforms from 1936 to 1945—a time and a place that generally are seen as less than willing to offer women a significant public voice. The Women's Chamber served as a transitional group between pre- and postwar conservationism and environmentalism, suggesting that this period deserves more scholarly study. The case study also advances the links between urban and environmental history.

DURING THE GREAT DEPRESSION, various citizens' groups in Salt Lake City tried to link the city's air pollution problems to the failures of its economic policies. Their reform efforts challenged the emphasis on economics and efficiency over health and aesthetics that had shaped previous city government policy.1 The group that spearheaded those efforts was an almost exclusively middle-class women's organization that called itself the Salt Lake Women's Chamber of Commerce. Its reform efforts began the process of reorienting ideas about conservation in a manner that started to resemble an environmentalist ethos that prioritized health, aesthetics, clean air, protection of the environment from pollution, and a decentralized economy over the ideology of efficiency and economic growth—an ideology that had characterized much of the mentality of people in Salt Lake up to the 1930s.2

Those involved in the Women's Chamber of Commerce and other reform groups hoped that if they could shift the city's attitudes further along the spectrum toward

environmentalism, they also, in effect, would wrest the city's power base away from outside interests like the railroads and mining companies that they thought controlled city and state politics. Members in the organization came to believe that while residents labored under a thick pall of smoke that diminished their health, damaged their property, and left them financially impoverished, mining and railroad entities enjoyed the economic fruits of a polluted Salt Lake sky and controlled policies that perpetuated air pollution. Members of the Women's Chamber argued that by using a Utah-based company to purify the primary source of the smoke—bituminous coal—and by using Utah-owned companies to process and market the coal by-products, the local economy would become more diversified and locally controlled, while the cleaner air would serve as the basis for a broader attempt to beautify the city. In other words, they believed that more local control over energy equaled less political and economic power for outside interests. They also hoped to reorient attitudes about the environment and urban growth toward what they believed the city's residents wanted—clean air, open spaces, and greater local autonomy.

The conventional historiography of environmentalism has tended to split into two periods, the Progressive Era and post-World War II. Part of this is a result of the seminal study done by Samuel Hays, Conservation and the Gospel of Efficiency. Hays's work demonstrates how conservation became imbedded in the structure of the federal government and shaped its policies from the first decade of the twentieth century into the 1950s. Historians documenting urban environmentalism have tended to follow Hays's lead, concentrating primarily on the periods up to the end of World War I and after World War II, largely ignoring the interwar period and accepting the idea that conservationism left little if any room for environmentalist policies. As a result, the efforts and contributions of reformers—especially women—regarding urban environmental reforms during the interwar years have been largely ignored or interpreted within a conservationist framework. This trend has slowly begun to change with some more recent studies, such as those done by Joel Tarr, Sherie Mershon, Robyn Muncy, Angela Gugliotta, and Maureen Flanagan.

The experience of the Women's Chamber in Salt Lake indicates that interwar attitudes about the environment were neither monolithic nor solely defined by engineers and politicians. A pro-growth philosophy—one that emphasized economic prosperity and industrial development over health and aesthetics—tended to be more pervasive among the city's engineers, business leaders, and municipal politicians. Citizen groups, meanwhile, sought to move the way people thought about the city away from the idea that "smoke meant progress" and toward quality-of-life issues such as health, urban beauty, and outdoor recreational opportunities. They did this by focusing not only on the physical structure of the city—the parks and trees, for instance—but also on the cultural assumptions that helped shape local political and economic decisions. They wanted to make environmental issues like the cleanliness of the air one of the primary considerations of urban planning and growth.
Figure 1. Salt Lake City on a Smoggy Day.

Salt Lake City view showing air pollution, n.d., probably in spring or fall, most likely from the City and County Building. The Walker Bank Building, with the turret, was the site of smoke observations by city inspectors. Some residents of the city who had the opportunity to visit the top of the building mentioned that the smoke became so thick that it was impossible to see other buildings, let alone determine the sources of the heavy smoke.

The contributions of the Salt Lake Women’s Chamber reveal evidence of an urban, grass-roots environmentalism that usually is attributed to postwar suburbia. They highlight a growing discontent among city dwellers with the unwillingness of municipal governments to address homeowners’ desires for the basic amenities they had come to expect after earlier reforms from the Progressive Era. The experiences in Salt Lake also point to the possibility that attempts to incorporate environmentalism into American culture and the decision-making process of government, particularly at the local level, did not, as it has been argued, disappear or totally give way to conservation by the first decade of the twentieth century, to return only after World War II.6

This episode also strengthens the argument for incorporating better examinations of the urban structure into environmental history. Martin Melosi, for example, has argued that urban and environmental history should demonstrate how “the physical features and resources of urban sites (and regions) influence and are shaped by natural forces, growth, spatial change and development, and human action.” As a result of this type of scholarship,
For comparison with Figure 1, a Salt Lake City view, also showing the Walker Bank Building, with Auerbach’s department store in front. Most residents agreed that the city’s air was generally pretty good during most of the year and made for an inviting physical space for both permanent residents and tourists.

definitions about conservation, wilderness, preservation, and environmentalism have begun to encompass the built environment and the impact that culture plays in the construction of nature. Christine Rosen and Joel Tarr also have called upon historians to analyze the effects of cities on the natural environment over time, the impact of the natural environment on cities, societal responses to these impacts, and the role of the built environment “as part of the physical context in which society evolves.”

Even more recently, scholars such as Angela Gugliotta have shown the value of moving beyond the “problem and solution scenario” to refocusing environmental urban history on how “environmental attitudes express other important cultural changes and how pollution itself can be a force in shaping social geography, civic culture, and economic conditions.” She suggests that this can be better accomplished by asking “how, when, and for whom was the environmental issue a problem?”

It was often women’s groups like the Women’s Chamber of Commerce that helped determine the physical construction and functions of their cities. Historians such as Daphne Spain and Sarah Deutsch have demonstrated, for
example, that women in other cities, such as Boston, Pittsburgh, and Chicago, were important influences in determining much of the character of those places because they were able to imagine "the city as a shared home," which, "gave women a metaphor through which to articulate and establish a different and more comprehensive set of priorities for city government." ¹⁰

In Salt Lake, the Women's Chamber of Commerce used the issue of smoke pollution during a time of economic crisis as a means of questioning the basis of the city's and state's political and economic culture—the idea that American democracy meant laissez-faire capitalism, that smoke symbolized economic prosperity, that urban beauty was primarily a tool for attracting more dollars for municipal coffers, and that voters passively trusted the ability of business elites to determine and control the shape and direction of the physical city.

DEMOCRATIZING THE AIR

GROUPS THAT PUSHED for air pollution reforms in the 1930s, and even earlier, wanted to give city residents more of a voice in determining what type of urban environment they wanted to have, which included the city's air quality. For the Women's Chamber, this meant recognizing the delicate balance between citizens' desires for economic security and the realities of the national and international economic system. To reform groups like the Women's Chamber, having clean air in the 1930s, as the direct result of a locally owned coal-processing plant, would signal the fulfillment of decades of residents' desires for a healthier living space. At the same time, it would mean greater control of the local economy and politics, and thus greater security for Salt Lake residents.

Agendas were shaped in large measure by competing definitions of democracy. Each group believed that democracy required economic opportunity and prosperity, yet each prioritized economic growth differently. The mining and business interests that heavily influenced Salt Lake politics subscribed to the notion of a Hamiltonian competitive elite democracy, whereby those who were more financially successful had earned the right to compete with each other for the votes of the general population. This group was heavily influenced by the culture of industrial consumer capitalism and saw the world, for the most part, through an economic lens. Other groups accepted and even desired economic prosperity, yet they often valued other quality-of-life issues such as personal autonomy, health, and urban beauty over financial gain.

A case in point occurred during the second decade of the twentieth century, when the Salt Lake Council of Women worked with the Chamber of Commerce on several plans to beautify the city. While the women focused on the task at hand, the Chamber attempted to exploit the idea of a cleaner city as part of a broader campaign to promote Salt Lake as a business and tourist destination. While in this case both groups sought identical municipal improvements, one did so primarily to expand economic opportunity for business entrepreneurs, creating popular support by arguing that all homeowners would benefit from increased property values. The other worked toward creating a healthy and beautiful community through which all the city's residents—homeowners and renters, rich,
middle-class, and poor—could directly benefit from being in a healthier and less physically depressing environment.  

NATURE AND DEMOCRACY

SALT LAKERS’ AND AMERICANS’ cultural acceptance of progress and technology in the early twentieth century tended to collide head-on with another strong shaper of the American identity: the belief that nature made vital contributions to a unique democratic character. As a direct result of their history, residents in Salt Lake took great pains to prove to the nation that they were as, or even more, American than the rest of the country. The Chamber of Commerce aggressively and enthusiastically promoted the area’s natural advantages and beauty and, in typical western U.S. style, conscientiously credited the necessity of conquering and preserving nature with contributing to the creation of an independent, democracy-loving populace. Yet, Salt Lakers, like Americans throughout the mountain West region, faced a dilemma in trying to reconcile the exploitation of the land—in the name of progress, and as a key component of American democracy—with the preservation of nature, also viewed by many as an important identity maker and marker.

One western movement that attempted to fuse these two seemingly contradictory agendas and ultimately provided a rational template for many western policy makers was the “See America First” campaign of the early twentieth century. In 1906, western boosters with economic motivations attempted to commodify the “wilderness out there” by promoting tourism to national parks like Yellowstone and Yosemite. Fisher Sanford Harris, a Salt Lake resident and onetime secretary of the Salt Lake City Commercial Club, is credited with organizing this campaign. The Commercial Club, eventually headed by governors and other business leaders throughout the Rocky Mountain region, argued that the western frontier and wilderness in general were responsible for creating the true American identity. They believed that it was important to preserve western wilderness, control how tourists experienced it, and, at the same time, promote urbanization and industrialization in the already settled portions of their states. They believed this approach of conserving nature, while simultaneously allowing for economic progress, would ensure the perpetuation of those characteristics they saw as necessary for shaping and preserving a true, democratic, American character.

The attempts to nationalize and even democratize tourism by making it more accessible to a broader segment of society through infrastructural improvements like better roads and camping sites occurred in conjunction with the nationwide efforts of several groups to promote and commodify nature in cities. These groups attempted to bring wilderness to the urban masses through the creation of more parks, tree plantings, and cleaner air. The confluence of these two movements helps illuminate the often contradictory philosophies of many communities that tried simultaneously to beautify their urban environment while promoting industrialization.
Building from the "See America First" campaign, Salt Lake City political and business leaders attempted to attract investment capital, tourists, and residents through a national advertising campaign that promoted both the natural beauties of the city and surrounding areas and the ease and economic benefits of doing business in the state. For example, in 1930 a Chamber of Commerce publication explained to the people of Salt Lake the strategies and rationale for the city's national publicity campaign. It operated from the premise that most people in the Midwest and the East skipped over the region and headed straight to the West Coast. As a result, the Chamber of Commerce proposed presenting Salt Lake as an ideal stop-over point in addition to portraying the city as the perfect place to live and do business. That same year the Chamber of Commerce invested in the publication of 103 feature articles, news stories, and photographs in other cities' newspapers and in national publications. It placed brochures in Colliers and in National Geographic, playing up Salt Lake's proximity to national parks and its surrounding natural beauty. Another pamphlet in Time emphasized Utah's inexpensive and abundant natural resources, its infrastructure, and its location as the business center of the intermountain West and gateway to the coast. The Chamber claimed that as a result of its publicity efforts the number of visitors to the state's national parks increased by 63 percent.14

SALT LAKE

BETWEEN 1890 AND 1919, Salt Lake, like many other cities, attempted, with limited success, several plans to deal with the smoky air caused by its reliance upon an abundant and cheap supply of bituminous coal.15 As the city grew, however, so did the pollution. This in turn precipitated mounting pressure from residents with competing agendas for reform. As Salt Lake's growth began to slow in the 1920s, most people blamed the poor air quality. Given the myriad of voices and motivations for reform, the city government felt compelled to refocus some of its efforts and find a solution, yet it chose to seek the easiest and most business-friendly path. As a result, Salt Lake made some strides at improving its air quality in the first half of the 1920s, thanks in no small measure to assistance from the U.S. Bureau of Mines in the form of a comprehensive smoke abatement study.16 By the mid 1920s, however, the municipal government almost completely ceased funding its smoke fighting efforts until renewed pressure from residents forced the issue back into the public debate once again by the early 1930s. The Salt Lake Women's Chamber of Commerce did not initiate the new round of protests and calls for reform, but it did become the primary voice and engine for change after 1935, as it took the lead in pushing the issue of air pollution to the forefront of city politics.17

One of the points of contention that the Women's Chamber of Commerce took up in the 1930s was linked, in part, to Utah's cultural heritage. Until statehood in 1896, Utah had two economies and social systems. The members of the Church of Jesus Christ of Latter-day Saints, the Mormons, generally held to a small-scale, communally based economy that was centered on "irrigated agriculture, village
industry, and occasional organized efforts to take advantage of fortuitous windfalls.” Additionally, many church members retained memories of the persecutions that they, their parents, and their grandparents suffered at the hands of non-Mormons. Often, those conflicts were political and economic as well as religious and cultural. As a result of their historical experiences, Latter-day Saint members tended to shun outsiders.\(^{18}\)

Eastern-based mining companies controlled the other economic and social system, which comprised small mining towns linked to the outside world by railroads. After statehood, the two systems slowly became entangled, which precipitated the commercialization of farming, the control of the state’s economy by eastern corporations and capital, and the loss of local political control to outside interests. As one historian noted, “These new patterns did not develop without dislocating consequences. The loss of the sense of community that had existed in the old ecclesiastical strongholds and the appearance of powerful and autonomous corporations led inevitably to bitter confrontations.”\(^{19}\)

By 1930 agriculture and mining remained the two most lucrative sectors of the state’s economy, but both struggled throughout the 1920s as a result of a postwar depression and an economy that had slowly begun transitioning away from manufacturing and mining. For example, between 1920 and 1930 the number of laborers who worked in agriculture dropped from 28.9 to 24.3 percent of the workforce, while the number of workers employed in manufacturing dropped from 14.5 to 12.4 percent and in mining from 6.9 to 6.3 percent. Meanwhile, those employed in the service sector increased from roughly 31 to 39.2 percent.\(^{20}\) In Salt Lake City the employment breakdown was similar to the state figures. For example, in 1940, 30.2 percent of those employed were in services, 47 percent were in distribution, 2.7 percent in extractive industries, and 13 percent were employed in manufacturing.\(^{21}\)

Although the city’s economy was mixed and relied less on manufacturing and mining, by the mid-1930s, the leadership of the Women’s Chamber of Commerce came to believe that outside interests, especially mining companies and railroads, held disproportionate political sway and were the primary obstacles to any meaningful pollution reforms in Salt Lake.\(^{22}\) Although there was much truth in the group’s understanding of the political and economic situation, eastern capital was not solely to blame, as Salt Lake City’s power structure also included the local Chamber of Commerce, the editor of the Salt Lake Tribune, and the head of the Mormon Church. These leaders had created a working alliance that helped determine much of Salt Lake’s political and economic agenda. The historical charges that members of the Mormon Church were un-American, outsiders, and different led to attempts to fashion Salt Lake into a city like any other in America. Salt Lake’s leaders held fast to an ideology that equated growth with progress while unrealistically holding out hope for a healthy and clean city. Yet organizations like the Chamber of Commerce, whose membership included agents of the mining and railroad companies, and the pro-business municipal government, were more than willing to compromise health and beauty in order to retain economic and political power.\(^{23}\)
While the Chamber of Commerce and the Salt Lake Tribune touted the city to the rest of the nation, Mormon Church leaders began a program of urban beautification on their own. They encouraged church members to focus on beautifying their homes, neighborhoods, and chapels with the goal of attracting more non-members to the city. They hoped that visitors would be impressed with the city, its people, and the church, and would then be curious enough to investigate the religion. In part, then, they hoped to use urban beautification as a proselytizing tool.24

In any event, given the technologies of the time, the contradictions in the city’s policies were apparent to many, including some within the municipal government. In 1920, for example, J. Leo Fairbanks of the Salt Lake City Planning Board articulated the contemporary philosophical contradictions that Salt Lake and many American cities faced in attempting to simultaneously create growth and beautify their urbanscapes. According to Fairbanks’s writings in the city’s monthly Municipal Record, Salt Lake’s municipal leaders wanted to do “nothing that is bad or likely to undermine our chances for making ours the most lovely city in America.”25 At the same time, he continued, “With the pressing demands for industrial plants we must be able to say to the employer of labor that his investment will be secure in certain localities with no fear of injunctions or depreciation of property values and that he may have every facility his plant demands by way of transportation, housing facilities, etc.”26 Fairbanks recognized that the city also needed to provide comfortable amenities for its residents: “With the great demand for homes, we must provide proper housing conditions to make the second requirement of a great city measure up to the highest standard. Slum conditions must be avoided and happy housing conditions provided to minister to the health and comfort of the people.” Finally, Fairbanks lobbied for the creation and preservation of more open space: “While they are available without a great expenditure of money, we must provide play fields, parks, and recreation grounds to supply the third requirement of a great city.”27 City officials, he concluded, sought a strategy to create a beautiful and prosperous city through a three-pronged program designed to encourage and protect industry through an appropriate infrastructure and minimal regulation in order to encourage new investment, to attract more jobs and encourage home ownership while protecting property values to retain a larger population, and to build recreational facilities that would both beautify the city and keep people out of trouble.

Some in the government recognized, however, that even with this “city functional” approach, which pushed reforms primarily for economic reasons, incompatibilities existed between desires for industrial growth and for increased municipal health and beauty. Some local officials specifically pointed to poor air quality as the primary reason for the city’s slow growth. Even though the gross consumption of coal and the resulting smoke produced in Salt Lake were low compared to other cities, the mean tonnage of soot fall per capita exceeded those of notoriously polluted cities like Leeds, London, Glasgow, Hamburg, and Pittsburgh. The problem in Salt Lake is that it lies in a mountain valley and, especially during the winters, temperature inversions make for very stale air. The smoke density at times was so thick that one observer remarked that the
A common occurrence during the winter months was an inversion such as this over the Salt Lake Valley (Salt Lake City is in there somewhere), n.d., photograph taken in a park or cemetery looking west to the Oquirrh Mountains.

“city is often hidden in a pall of fog and smoke so dense that it is impossible to distinguish objects at 100 yards distance.”

THE SALT LAKE WOMEN’S CHAMBER OF COMMERCE

DESPITE EFFORTS TO LURE people to the city through the promotion of its natural beauties and healthful mountain setting, Salt Lake’s citizens continued to labor under a thick shroud of suffocating smoke. For example, during the winter of 1923, as the city attempted to improve its air quality, city inspectors recorded 587 smoke violations, 45 per week. The evidence suggests that the smoke abatement plan in place at the time, which focused primarily on education, was producing small gains. In 1925 only 306 violations, or 26 per week, were recorded, yet by 1928, as Salt Lake virtually eliminated funding for smoke enforcement, the number of violations increased to 47 per week. The city’s reluctance to force manufacturers and other major polluters to clean up their act is apparent in who was ticketed for smoke violations. During the period 1921-1929, the city issued 83 police-court citations. Manufacturing concerns, which accounted for over 44 percent of the pollution, were cited only eleven times. Apartment buildings and private homes were ticketed most often, despite the fact that while residences used the majority of coal, they produced only about 22 percent of the city’s smoke. Railroads, on the other hand, consumed less than a quarter of the coal used in residences, but produced roughly 19 percent of the smoke. Despite this, the railroad industry was never cited or forced to pay any fines.
As a result of the city's pandering to industry, Salt Lake's residents literally gasped for air, particularly during the winter months, and women and the poor routinely bore some of the greatest burdens from the pollution. Not only did women have to breathe the foul air like everyone else, as homemakers they faced the added chores of cleaning the family clothing and scrubbing the soot-encrusted walls. Additionally, as caretakers of the family's health, women were reminded daily of the health risks associated with poor air quality. Poorer residents tended to be housed in apartments and other low-income dwellings located between what was described as a transition area between the central business district, the railroads, and the industrial sector to the west and south of downtown. Often these poorer residents could not afford to replace damaged property, visit the doctor, or move to areas of the city, like the foothills, where the smoke pall was less dense.  

By the mid-1930s, with the local economy struggling and almost 36 percent of Utah's workforce unemployed, citizens increasingly blamed the poor air quality for their frustrations and began to push seriously for change. One organization that challenged the conventional thinking of the city's leaders was the Salt Lake Women's Chamber of Commerce. When the Women's Chamber was officially organized in February of 1936, initial enthusiasm was so great that there were almost two thousand dues-paying members by the end of the year. The leaders of the organization were middle-aged, white, middle-class women who had grown up witnessing the conversion of the state's economy from the more communally based "moral economy" to one in which distant corporations greatly influenced the direction of the state. These women hoped to return some political and economic control to the citizens of Salt Lake because, in their minds, the policies that were in place were failing.

The organization's leaders had already been active in several other women's clubs including the Soroptomists Club, the Utah Art Institute, and the Female Relief Society of the Mormon Church. They were able to use those connections to recruit members. The organization also gained additional support in 1941 when it joined the Utah Federation of Women's Clubs.

Cornelia S. Lund was the group's first and only president. Lund had served as a representative in the Utah State Legislature from 1933 to 1934 and in the State Senate from 1937 to 1939. She also was the Salt Lake County Recorder from 1939 to 1947. She was a member of the Utah State Relief Society Board while her husband taught music at Brigham Young University—her position on the board was an important administrative job within the Mormon Church—and she headed the state Red Cross during World War I.

Another important member of the Women's Chamber was its executive secretary, Alice Merrill Horne. Like Lund, Horne was involved in many civic activities throughout her life. While a member of the Relief Society General Board from 1902 to 1916, she led the public health and art committees. Horne had also served in the Utah Legislature from 1898 to 1902. As a representative, she established the Utah Art Institute and introduced a scholarship for low-income students.
The primary goal of the Women's Chamber was to make Salt Lake “a smokeless city, healthful, clear, prosperous, and beautiful.” This was an environmental philosophy that stressed aesthetics and health, although it still contained traces of the pervading conservationist ideology of efficiency and economic growth. According to Lund, complete smoke elimination was the key to “insure health and happiness not just for the present, but for posterity.” Smoke elimination would “stabilize labor and manufacturing, advance the financial security of the home,” and make “Salt Lake the main artery of Western tourist travel, improve the culture of the city through art, music, and cultural education, and stop the migration of people to other cities.”

This echoes much of the conservationist rhetoric used by other groups and city officials in the 1920s and 1930s, which touted environmental reforms in the name of efficiency and economic prosperity, especially given the high unemployment rate in the state (that pushed many people to seek work in California). It was politic for the Women's Chamber to emphasize the economy if it hoped to be taken seriously. From the Chamber records, it is clear that the women recognized the demand for economic prosperity and believed growth was part of the equation. Still, they believed that an emphasis on health, aesthetics, and “urban nature” would ultimately shift the economic base of the city away from the minerals and manufacturing industries toward a stronger, more diverse economy and break the control of eastern-based capital and the local Chamber of Commerce. The women hoped that organized protest and a shift in economic emphasis also would help recreate some of the moral economy and communal spirit that they believed had existed before statehood. To the Women's Chamber, then, smoke represented the economic, political, and cultural excesses of an individualistic society while clean air signaled a more communally controlled moral economy.

Members of the Women's Chamber realized that complete elimination of smoke would be feasible only through a sound economic alternative to untreated coal. Chamber members decided to pressure the city into building a low-temperature coal processing plant that they hoped would produce a relatively inexpensive smokeless fuel that people from all economic levels could afford. They wanted the plant built and run by a private Utah-based company, the city, or the state. They also envisioned the subsidiary industries created from coal processing as being Utah owned and run. Because processed coal has its oils, tars, and other impurities removed, it burns more efficiently and cleanly. However, processed coal was more expensive than untreated lump coal; therefore the Women’s Chamber thought it necessary to market the by-products, such as gasoline, in order to subsidize its higher costs. Members of the Women's Chamber argued that a Utah-owned processing plant subsidized by the ancillary industries would simultaneously clean the air, allow residents more control of their energy sources, and create many more jobs. Lund targeted low-income homes to be the beneficiaries of the “artificial anthracite” because approximately thirteen thousand homes, or roughly one-third of all Salt Lake residences, could not afford mechanical firing devices or natural gas furnaces and thus were a big part of the city's pollution problem.
Members of the organization took it upon themselves to become educated experts about the coal industry, smoke pollution, and the science of fuel processing. Lund learned about coal processing as a member of the state legislature. The state, the University of Utah, and the U.S. Bureau of Mines had created a research foundation to find ways to extract oil from coal and shale and to produce a smokeless fuel alternative. Subsequently, the Women's Chamber turned to engineers at the University of Utah who had been working on coal processing methods, and they delved into professional journals to identify and contact fuel purification experts from throughout the nation, England, and Europe.  

Many have argued that individuals experience and understand the city based on categories of race, class, and gender. For example, Maureen A. Flanagan, Angela Gugliotta, Harold L. Platt, and Dolores Greenberg wrote that “social categories of class, gender, and race have structured different relationships of urban residents to their environment and have caused them to see the environment in different ways.” For the middle-class Salt Lake women, air pollution touched on a slew of class- and gender-based issues such as middle-class expectations that linked health and prosperity in the private domestic environment with similar expectations in a broader shared urban environment. While the women's organization espoused many of the technological solutions that some engineers had been championing, the women saw smoke as much more than a technological problem to be managed in the name of efficiency. In part because of their gender, they saw the relationship between nature and air pollution in a different light than many male engineers and technocrats. For example, Alice Merrill Horne, as chair of the health committee of the Relief Society, initiated legislation requiring milk inspections and creating a series of sanitary milk stations throughout Salt Lake: Horne had had a child who died after drinking some contaminated milk. In addition, she helped to organize a program that provided milk to children of underprivileged families.

As part of their campaign, the women began publicly challenging the municipal government. On several occasions, members of the Women's Chamber organized and conducted public demonstrations to draw attention to processed coal. They continuously petitioned the city government for public hearings in support of an ordinance that would ban all forms of smoke-producing coal. They also used radio addresses, newspapers, and local magazines to get their message to the public. With enough pressure and public attention, the women hoped city leaders and residents would then make a conscientious and sustained effort to eliminate smoke by no later than September of 1939.

Salt Lake Mayor E. B. Erwin routinely passed along the Women's Chamber's petitions to the City Zoning Commission for further study. He was a bit surprised when in December of 1936 members of the Zoning Commission, after conducting several interviews with engineers and “other prominent citizens,” reported that they were “fully convinced that the most feasible way of combating the smoke nuisance was by and through the use of smokeless fuels, a product which, in their opinion, had long since passed the experimental stage.” The only major concern the Zoning Commission expressed in the report was over the higher cost of
processed coal for consumers, but most of the fuel experts felt that something could be done to reduce the price. The study even echoed the Women’s Chamber’s criticisms of the municipal officials, stating, “The situation presents a condition which few cities would tolerate any great length of time. Indeed, it seems almost incredible that Salt Lake, with its boasted natural resources and advantages, has so long permitted itself to be lulled to sleep with the idea that sooner or later this matter would take care of itself. In the opinion of the Zoning Commission the time has come to take definite and decisive action.” The report recommended that the city adopt the Women’s Chamber’s proposed ordinance prohibiting the use of any non-smokeless fuel by September of 1939 and begin immediately preparing its residents for the transition.47

Some in the city government (which was called a city commission and comprised a board of commissioners) were taken off-guard by the Zoning Commission’s stinging criticism and its conclusion that they should adopt an ordinance prohibiting the use of untreated coal. As a delaying tactic or as a possible attempt to shirk responsibility, city officials decided to have the city attorneys review the measure.48

In January 1937 the City Attorney’s Office advised the city that “it is our opinion that until smokeless fuel is manufactured commercially at a price that is not unreasonable to the public, the Board of Commissioners of Salt Lake City has not the power to declare by ordinance that the burning of coal is a nuisance.” The members of the City Commission accepted the city attorney’s cautious interpretation despite the fact that other cities, including New York and
Milwaukee, had already passed similar ordinances outlawing the burning of bituminous coal and that experiments on processed coal had proved it to be feasible and commercial processing plants were already in use in England, Germany, and a few places in the United States.49

The city government did nothing to challenge the attorneys’ report, nor did it initiate an investigation into the feasibility of processing coal and selling it at a competitive price with lump coal, either through private, municipal, or state control. The City Commission’s opposition was based in part on a great deal of lobbying from railroads, the Utah Coal Operators, and councils of towns such as Price, Utah, which relied upon the coal industry for survival. The Price City Council for example, using strong language and threats of economic ruin, objected to any laws that would “be detrimental to the Utah coal industry and to any coal-producing towns like itself.”50

Mining interests, in combination with the official Chamber of Commerce, also conducted an on-going publicity campaign of their own to stem the growing tide in favor of reforms. One pamphlet, “What Mining Means to Utah,” attempted to link the mineral industry to the livelihood of the state’s farmers and the overall economic well being of Salt Lake. It claimed that mining provided one-third of the state’s jobs and that if the mining industry were diminished, the agricultural industry would “lose its closest and best market.” It also claimed that in addition to the revenues generated through the sale of minerals, the taxes and fees the mining companies paid to the state were one of the primary reasons why Salt Lake and Utah had grown and prospered.51

Mining interests had adopted the same tactics in a similar situation in St. Louis. Since 1923 the St. Louis Chamber of Commerce and the Women’s Organization for Smoke Abatement had been trying, with limited success, to educate people about the benefits of clean air. In 1940, under Mayor Bernard Dickmann’s leadership, St. Louis began enforcing stricter smoke control laws, stipulating that all soft coals used in the city had to first be “washed” or purified. Businesses and coal companies located just across the Illinois border vigorously, but unsuccessfully, challenged the passage of the ordinance in the print media and in the courts. Because the St. Louis city government held firm in enforcing the policy, the city’s thick smoke pall was reduced by over 83 percent in the winter of 1940-1941.52

The success in St. Louis, coupled with continuing pressure by the Women’s Chamber, resulted in Salt Lake sending its city engineer, William L. Butler, to Missouri in 1940, along with Gus Backman, the commissioner of the Chamber of Commerce Smoke Abatement Committee, and Van Law, from the Denver and Rio Grande Western Railroad, to investigate how St. Louis had achieved its much-publicized smoke abatement.53 They returned with glowing reports, so Salt Lake asked Butler, with the assistance of the Chamber of Commerce, to develop a new smoke campaign that mirrored the St. Louis plan.

Yet despite the lip service to a new smoke plan, Salt Lake’s government and the Chamber of Commerce still embraced an economic status quo: Their new smoke ordinance was not exactly revolutionary. Many of the regulations, such as a law requiring mechanical firing devices for industrial, commercial, and
residential heating plants, had already been in place since the 1920s, but were poorly enforced. The new codes emphasized education and training with fines to be imposed only as a last resort.\textsuperscript{54}

Similar regulatory efforts in other places had been ineffective when the resolve to enforce them and practical means to allow poorer residents to comply were lacking. For example, when Pittsburgh and Cincinnati tried to emulate the St. Louis plan, a combination of World War II and heavy lobbying by coal companies negated any strict enforcement of the laws. In essence these cities chose “technological” solutions paid for by individual homeowners instead of community-sponsored or business-based coal processing plants. These decisions reflected a policy that gave priority to business interests over the health of individual citizens despite evidence from cities like New York, Philadelphia, and Chicago of a correlation between improved air quality and economic prosperity when commuter trains converted from steam to electric power.\textsuperscript{55}

Thus it is no surprise that the Women’s Chamber opposed what it saw as a continuation of the halfway measures from previous decades. A frequent complaint from the Women’s Chamber was that although the state’s economy was improving thanks to the war, several thousand households were still unable to install mechanical firing devices and smokeless fuel was too expensive because it was not manufactured in the state. The Chamber felt that most people would simply ignore the ordinances because they were not economically feasible and, “just as in the past,” the city lacked the resolve to vigorously enforce the new regulations.\textsuperscript{56}

Consequently, when the city announced its new smoke abatement plan amidst great fanfare and expectations, many who had closely followed its efforts reacted to the proposals with skepticism. The subsequent protests forced the city to hold a public hearing. At a meeting in early March 1941, over one hundred people, representing various civic groups including the Women’s Chamber, the Women’s Smokeless Fuel Federation, and the Salt Lake Council of Women, turned out to express their displeasure with the plan. Representatives of the Utah Coal Operators, the railroads, the Chamber of Commerce, and other industries who supported the city’s plan were also in attendance.\textsuperscript{57}

A chorus of voices backed Cornelia Lund’s position that smokeless fuel was Salt Lake’s best option. Niels Christensen, an engineer at the University of Utah and a member of the state-sponsored Utah Conservation and Research Foundation, asked why “the city had decided to enact a smoke abatement program now, after years of apathy and failure?” He then suggested that most residents wanted a permanent solution, “not a program of continued expense which is but a subterfuge, and the only solution is a smokeless fuel.” Christensen went on to dub the commission the “errand boy” of the Chamber of Commerce, claiming, “The majority of citizens are not in favor of the chamber of commerce sponsoring anything … because their membership is paid for by outside interests.”\textsuperscript{58} L. C. Karrick, a former engineer with the Department of the Interior and an inventor of a coal purification process, then charged that American oil companies had marshaled their forces to block attempts nationwide to extract oil from coal despite the overwhelming scientific evidence, including studies from the
University of Utah, that showed coal processing was a viable alternative. Others, including Alice Merrill Horne, Judge Reba Bosone, and Mrs. G. Byron Forbes (formerly members of the Women’s Chamber), echoed Lund’s request for the city to adopt a permanent solution and to donate land, water, and even funds for building a processing plant.  

Mayor Jenkins and city council representatives defended their policies and the wishes of the Denver and Rio Grande Western railroads, arguing that the railroads had been vigilant in complying and making progress toward smoke abatement. Records, however, indicate otherwise. Smoke inspectors and city engineers complained often about the industry’s non-compliance, yet since at least the early 1920s the city had refused to issue fines or exert any meaningful pressure against the railroads. Additionally, coal and other mineral companies skillfully controlled how the mining industry was taxed. Taking advantage of laws they helped draft, mining interests that controlled ore purchasing companies routinely undervalued and depreciated gross proceeds of extracted minerals so that the ore was sold below market value and mining companies paid taxes on only 6 percent of the actual value of the minerals. Their royalties and leases escaped taxation in large measure.  

It was clear to many at the meeting that the city’s plan placed the blame for the problem primarily on residents for relying on improper firing techniques, using outdated equipment, and in general, not being vigilant enough in fighting smoke pollution. City officials still clung to the idea that individual households that burned coal should be more responsible for countering the ill-effects while industry deserved protection. Yet a city engineering department study from 1938, for example, revealed that railroads accounted for 40 percent of the city’s smoke, commercial and industrial plants 36 percent, and residential areas 24 percent.  

While many at the meeting blamed business interests and the fuel itself for the pollution problems, they were nonetheless still willing to accept some of the burdens and responsibilities for using coal. They also agreed that Salt Lake’s economic health was tied to the coal industry. Bolstered by Lund’s logic, however, they argued that even if the majority of Salt Lakers abided by the new regulations, there were still several thousand homes that could not afford to comply and would therefore affect the air quality of the entire city. Ultimately, what the reformers wanted was a way to equalize the burdens of smoke elimination. More and more people began to believe that the way to do that was through processed coal. Opponents of the city ordinance thought that it was government’s responsibility to give them more options.  

Some in the audience also chided city leaders for not adopting a complete ban on polluting fuels and for not pursuing a local coal processing plant. City Commissioner Oscar W. McConkie and some of his fellow councilmen conceded that processed coal and a processing plant were probably the best alternatives, but he argued the city did not have the funds at that time to build a plant. He asked his critics, “Since we know we cannot have a fuel processing plant right now, why is it that so many of you are opposed to gaining as much relief as possible under the abatement program?” Yet, when pushed further, the commission surprisingly agreed to donate the necessary land and water for a plant. The
meeting finally ended with McConkie suggesting that each of the opposing civic groups select a member for a citizens’ committee that would jointly draft a plan of how best to fund and build a processing plant. Mayor Jenkins seconded the idea.63

A week later, on March 13, Mayor Jenkins gave the groups an almost impossible deadline of six days to submit their plan. The citizens’ coalition included representatives from the Women’s Chamber of Commerce, the Utah Conservation and Research Foundation, the Women’s Smokeless Fuel Federation, the Salt Lake City Council of Women, and L. C. Karrick. Although they attempted to combine forces to draft a plausible solution to the processing plant question, their effort was doomed from the start. They differed fundamentally over whether the processing company should be homegrown and over the processing techniques that should be used. They agreed that homeowners, businesses, and the city should equally share the costs, but the groups haggled over how best to fund the plant and who should receive the royalties. The coalition finally asked for more time and was given a final deadline of April 1, with the warning that if no reasonable proposal was made, the city would go ahead with its own plans.64

With this pressing deadline and an inability to come to a consensus, the citizens’ coalition adopted an unexpected tactic. It suggested that the money already earmarked for additional inspectors under the city’s plan could be better used for building a coal processing plant. In addition, it argued that before more money was spent on an abatement program, the city should demonstrate its commitment to, and the effectiveness of, the new ordinance by forcing railroads and factories to “first comply with previous smoke laws of years past, because they were responsible for 75 percent of the smoke anyway.”65

This strategy predictably sparked a response from the railroads. They protested accusations that they were responsible for such a large amount of smoke. For example, F. H. Knickerbocker of the Union Pacific claimed, as proof of his company’s commitment to smoke abatement, that his company had installed $80,000 worth of smoke-reducing equipment in 1937.66

The City Commission allayed industry fears by ignoring the April 1 deadline that it had given the citizens coalition to draft an alternative plan and unanimously passed Butler’s original smoke abatement plan on March 27, 1941. The commission said that smokeless coal and a processing plant were good ideas but the city did not have jurisdiction to build a plant. One member of the commission compared the problem to citizens wanting safer streets. He pointed out that most of them committed minor traffic infractions, yet complained that there were not enough police to monitor things. With additional inspectors, the “few” who were unwilling to cooperate in smoke abatement would face prosecution. The commission also stated for the record that the railroads and the manufacturing industry already had been cooperating to the fullest.67

With a green light from the city, Butler believed that his strategy of education, inspection, and gentle enforcement was going to succeed. After the first month he confidently reported that the city’s overall smoke density had been reduced by 39 percent compared with the same month of 1940. He also claimed that there was a significant reduction in the average daily duration of smoke, from 210 to
128 minutes, and that the amount of soot fall decreased almost 34 percent. He claimed that both the industrial and commercial districts showed a reduction in air pollution of almost 40 percent overall, while the residential areas had improved only 18 percent. Despite the poor figures for the residential areas, early indicators were positive, particularly since October of 1941 was colder than 1940.68

With its encouraging first month statistics and Butler's belief that the industrial and commercial sectors were on the right track, the city smoke division decided to begin focusing its efforts on teaching private citizens how to properly fire their home furnaces. Unfortunately, weather conditions changed dramatically in November, producing a temperature inversion that locked in the pollution. The air became so bad at one point in 1941 that the Salt Lake Tribune reported that the "pea soup murk ... reduced Christmas lights to blobs of weak color."69

The Women's Chamber, which had adopted a wait-and-see approach to the city's new plan, now wasted little time in resuming its attacks on the commission and the mayor. Lund accused the city leaders and the new smoke program of failing to give any appreciable relief and reiterated that "elimination, not merely abatement of smoke, is possible and feasible, and it is the city commission's business to do something about it." She then called upon the city once again to take responsibility for building a processing plant to supply an inexpensive smokeless fuel to all Salt Lakers.70

A few days later, the Women's Chamber challenged the city government to pass a resolution levying a small tax on coal purchases in order to invest in a coal processing plant and to make smokeless fuel mandatory for all industrial, commercial, and residential heating plants. The Women's Chamber argued that a tax would more than pay for itself in the form of lower health care, cleaning, renovating, and painting bills. It also argued that selling the by-products of smokeless coal would eventually make it the same price as regular coal. The women's resolution ended by announcing, "The last few days have proved that the smoke abatement laws are a complete failure."71

The Women's Chamber's renewed public criticisms forced the city to hold public hearings on the issue yet again. At one hearing, held just three days after the attack on Pearl Harbor, Lund questioned claims that the city's air quality had been improving. She argued that her organization had conducted its own studies and concluded that since 1921, despite all the efforts and money spent on abatement, Salt Lake's air had become worse, not better. Another member, Mary Edgeworth, claimed that she and the organization did not wish to interfere with the smoke department, but they felt they had no choice since every program the city had tried had failed. Both she and Lund urged the city to secure funding from the federal and state governments to build a processing plant. Edgeworth finished by threatening the commission with a large-scale public demonstration to further pressure city officials. This threat had some political muscle to it because the Women's Chamber belonged to and had the full support of the General Federation of Women's Clubs, whose Utah membership boasted almost ten thousand women by the end of 1939.72

Despite all of the pressure and efforts by the Women's Chamber and other civic groups, a coal processing plant was never built in Salt Lake for several
reasons. First, World War II diverted most of the nation's resources to defeating Germany and Japan. Second, after a long and extensive search, the Women's Chamber could not find a Utah-based company that would economically treat Utah coals. As a result, it turned to companies that had been successful at coal processing abroad, particularly in England and Germany. This would have undermined the organization's goal of greater economic and political control at the local level had the war in Europe not made such an action moot. It created a split in the organization between those who insisted upon using only Utah-based ideas, sources, and capital, and those who saw cleaner air for the city as the primary means to its other goals.73

While several snags prevented the city from building its own processing plant, the state finally went ahead with plans to do so, in large part because the coal industry, after the war, faced a legitimate threat from natural gas suppliers. The Women's Chamber of Commerce did get a glimpse of what it was working toward in 1948, when the first shipment of processed coal from a plant built in Wellington, Utah, arrived in the city. Plant owners claimed that the new facility could process 128 tons of coal a day, but the venture was short lived: By this time, Salt Lake City had begun an almost complete conversion to natural gas, and the processing plant soon closed.

Despite the failure of the Women's Chamber to get a processing plant built in the city, it ultimately succeeded on several fronts, including forcing the city to enact programs that did, in fact, improve the city's air quality. It succeeded at keeping the air pollution issue at the forefront of public and political debate, even during the war. In the process, it succeeded in pushing many civic leaders to rethink the economic and health values of greater resource efficiency and cleaner air. Members of the Women's Chamber understood that the local economy was entwined in a larger market system, yet it hoped that its efforts could stem some of that tide. Paradoxically, perhaps its biggest impediment in realizing greater local economic and political autonomy was the ensuing postwar prosperity, which was brought about in part because of an inexpensive energy source.74

CONCLUSION

THE EXPERIENCES of the Salt Lake Women's Chamber of Commerce demonstrate that women were still at the center of urban environmental reforms even as the Progressive Era faded. In the course of their campaign, they pushed beyond the notion that their efforts simply constituted a "domestication of politics." Some historians have demonstrated that women were interested in the betterment of all citizens, rather than in making the city profitable for an elite few. This group of women from Salt Lake fit that mold in a time and a place that generally is seen as less than willing to allow them a significant public role. In trying to clean up cities, women were redefining the objectives of urban pollution policies away from the idea of a "city profitable" and toward a "city livable." Women reformers, in essence, attempted to broaden the civic responsibility for the city's welfare through a reordering of municipal priorities. In the process they challenged the very purpose of the city's existence.75
Similarly, this study suggests that historians need to take another look at the efforts of activist groups of the interwar years to combat pollution and the solutions chosen by cities as additional explanations for postwar urban settlement patterns. It is quite possible that some suburbanization can be attributed to how cities, large and small, dealt with pressing environmental issues prior to World War II. As Jon Teaford suggests, many white Americans felt politically disenfranchised as their environmental concerns were continually ignored and sacrificed to the demands of business and industry. Consequently, many of them hoped to gain a greater measure of political and financial empowerment by moving to suburban communities. They wanted clean air, open green spaces, and lower taxes, and they believed that all three were part of what constituted the “American dream.”

The experiences of the Salt Lake Women’s Chamber also demonstrate that the debate over fuel purification was not the exclusive domain of engineers. The Women’s Chamber represented a departure from the traditional “municipal housekeeper” activities usually ascribed to women’s organizations in the 1930s. Its environmental protests encompassed more than simply cleaning up the city; they reflected a competing strategy of how to deal with environmental policies that was less rigidly hierarchical and economically based. At the same time, they attempted to equalize burdens of pollution and pollution reform by forcing those who were responsible for the majority of the pollution, but represented a minority of the population—railroads, heavy industry, and manufacturing—to shoulder their fair share of the costs by using a purified energy source. That the Women’s Chamber also wanted processed coal to be the fuel of households points to its communal ideology that all the city’s residents shared responsibility for cleaner air.

Some have also argued that historians “ought to be able by now to see” that in addition to machine, ethnic, and class politics, “gender politics also exist.” Gender politics are manifest through battles over resource allocation, including how urban spaces are defined and built, and they need to be understood in a historical and cultural context. The experiences of the reforming women in Salt Lake were shaped by their gender as well as the circumstances of the Great Depression. These two factors, taken within a broader American cultural framework, helped express their responses to Salt Lake’s pollution problems in a language that was both recognizable and comprehensible at a time when faith in business, progress, and democracy was under challenge. This was done by still relying on technology, but at the same time placing a greater emphasis on democratic characteristics derived from contact with nature. While it is true that some men agreed with and developed some of the pollution reform strategies, such as coal processing, it was women who saw this less in pure economic terms and as a problem of efficiency, but in broader democratic terms, as an opportunity to shift economic and political power back to the general population and to alter the decision makers thought about the city and environmental issues.

Local women’s groups often presented an alternative vision to the standard idea of the city as a perpetual physical and economic growth machine. In the process they challenged traditional definitions of democracy that were
Robert Johnston, for example, has argued that the members of the middle class in Portland were concerned with more than becoming wealthy capitalists themselves. While they did work to preserve small business, home ownership, family life, and fair taxes, they imagined a “middle-class democracy” where “workers were at the center of their construction of the middle class, and the working class and the middle class would meld into ‘the people.’” At the core of this vision was a “republican political economy” that “promised to break up the monopolies that had supposedly come to control public lands, transportation, communication, and most critically, money. Antimonopoly action would bring decentralized markets, with small firms in control of production. A republican middle class thus became the locus of resistance to corporate capitalism, and perhaps, even to ‘capitalism’ itself.” Ultimately, competing views over what to do with the nation's natural resources were linked to competing definitions of democracy—who should control and benefit from the exploitation of those resources and to what ends?

Like reformers in Portland, the Salt Lake Women's Chamber of Commerce hoped to benefit all classes of people, particularly those in the city who suffered the most from the air pollution—women, children, the working classes, and the poor. Their actions can best be described as a political and economic protest against industrial corporate capitalism.

In addition, the Women's Chamber served as a transitional group between pre- and postwar conservationism and environmentalism. In his path-breaking work *Conservation and the Gospel of Efficiency*, Samuel Hays demonstrates how, by the early 1900s, the political culture in the United States reflected and reinforced a systemic conservationist mentality, which in turn shaped the structure of the federal government and its decision-making processes. As part of an effort to create a more orderly and predictable world, Americans refocused nineteenth-century environmental, health, and aesthetic issues to emphasize efficiency and the long-term economic viability of the nation's natural resources.

Many scholars, using Hays's work, argue that the almost all-encompassing ideas associated with conservation that seemed to dominate American wilderness policies supplanted an earlier environmentalism that had shaped the efforts of Victorian-era American women prior to the twentieth century, or they confine the modern environmental movement to activists' efforts after World War II. Some recent scholarship has suggested, however, that there are ideological links between the pre- and postwar conservation/environmental movements dating back to the Progressive Era. The efforts of the Salt Lake Women's Chamber of Commerce's to democratize that city's air demonstrates that the modern-day environmental movement had roots in the decades prior to World War II.

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NOTES

Thanks to all those at *Environmental History*, especially Mark Cioc, Eve Munson, and Adam Rome, and the two anonymous readers for their valuable feedback and suggestions. Thanks also to Maureen Flanagan for her careful reading and insights on how to improve this work.


2. The definitions of conservation and environmentalism are debated, evolving, and overlapping. The basic definition I am using for environmentalism is active participation in attempts to solve pollution and resource problems and valuing aesthetics and biology over efficiency and commerce. One of the problems in defining the terms comes with the definition for conservation, which is the management of resources in order to eliminate waste and maximize efficiency, and the preservation and management of the environment and its natural resources. Preservation implies leaving the "natural" world alone and "natural" has generally meant "free from human impact." I believe humans are part of the "natural" world and are a species that simply possesses a greater capacity to alter the environment. Preservationists, as part of the conservationist movement, could be classified as environmentalist in that some of them place environment above efficiency and work to protect wilderness areas. The emerging environmentalist ethos in the 1930s from groups like the Salt Lake Women's Chamber of Commerce actively tried to solve pollution and resource problems by placing greater values on aesthetics and biology (both human and "natural"). This group though, was still influenced by conservation—that is efficiency and resource management—which is why it was an important player in shaping the transition in how Salt Lakers and Americans thought about environmental issues.


6. Hays, *Conservation and the Gospel of Efficiency*; Stradling, *Smokestacks and Progressives*; and Adam Rome, *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism*, (Cambridge: Cambridge University Press, 2001). Rome hints that there were many discontented people—including some before the modern-day environmental movement that began in suburban homes—but the focus of his study is such that he does not explore the roots of that frustration.


9. See for example, Daphne Spain, *How Women Saved the City* (Minneapolis: University


13. Shaffer, See America First, 39, 92.

14. Salt Lake Chamber of Commerce, “Selling Salt Lake and Utah to the Nation,” (published by the Salt Lake Chamber of Commerce, 1930), Utah State Historical Society Archives, hereafter referred to as USHSA.


16. Municipal Record, October 1920, 1-5. Salt Lake City County Building Archives, hereafter referred to as SLCCBA; See also City Commission Records, petition from City Federation of women’s Clubs to Salt Lake City Commission, September 22, 1920, 673, Petition #856; petition form the Salt Lake Commercial Club, September 22, 1920, 673, #857; and November 8, 1920, 772, petitions #s 967, 969, 970, 971, 972, 973, and 986, SLCCBA.


20. Ibid., 430-31, 434, 481, 714.

21. Salt Lake City Planning and Zoning Commission, City Plan, Salt Lake City, Utah, 1943, (City Planning and Zoning Commission: Salt Lake), August, 1943, 22, USHSA. Between 1870 and 1900 there were more smelters in and around the Salt Lake Valley than in any other area in the nation. The number of smelters was thirty-four in 1880 along with eighteen mills. As a result of consolidation and a lawsuit filed by farmers in Salt Lake County, however, by the 1920s there were only three smelters in Salt Lake County. United States Smelting Refining and Mining Company operated a smelter between 1902 and 1958 in Midvale—twelve miles south of Salt Lake. American Smelting and Refining Company in Murray operated from 1902 to 1959. This smelter operated only six months out of the year during the Great Depression. Finally, the Kennecott Corporation Smelter, or Garfield Smelter operated at Garfield from 1905 to 1959 and was a little over seventeen miles north and west of Salt Lake. See, for example, The Smelters of Salt Lake County, Prepared for the state of Utah Department of Environmental Quality, Division of Environmental response and remediation by D. W. Moore and Associates, Inc Salt Lake City, 1992. 4, 87, 144, 165, USHSA now called Utah State Research Archives. See also Gary Hansen, “Industry of Destiny, Copper in Utah,” Utah Historical Quarterly 31 (Summer 1963): 262-79.


24. The Church of Jesus Christ of Latter-Day Saints embarked upon a community beautification project in 1938 in which they encouraged members to landscape, paint, and generally fix-up their homes, churches, and neighborhoods, with the express goal of encouraging more tourism and as missionary work—that is, providing a physical example that would attract non-members. See for example articles published in church magazines such as *Improvement Era*, August 1937 and May 1938.

25. *Municipal Record*, January 1920, published by Authority of the City Commissioners (Salt Lake: Western Printing Co.), January 1920, 4, SLCCBA.

26. Ibid., 4.

27. Ibid., 5.

28. *Municipal Record*, March 1920, 6, and *Municipal Record*, October 1920, 1 and 5, SLCCBA.

29. Austin Gudmundsen, “Nine Years of Smoke-Abatement Work at Salt Lake City,” 9, April 1930, Department of Commerce, U.S. Bureau of Mines, microfilm, Utah State Archives, hereafter referred to as USA, but also now part of the Utah State Research Archives.

30. Ibid., 3, 10.

31. Salt Lake City Planning and Zoning Commission, *City Plan, Salt Lake City, Utah, 1943* (unpublished document by a joint committee, August 15, 1943), 26-28, USHSA.


33. Cornelia S. Lund in her yearly President’s Report to the Salt Lake City Women’s Chamber of Commerce, given March 1, 1937, at the Hotel Utah, 2, Women’s Chamber of Commerce Files, USHSA.

34. Ibid.


37. Lund, President’s Report.

38. Preamble to the Constitution of the Women’s Chamber of Commerce, March 2, 1936, WCCF, USHSA.


40. Women’s Chamber of Commerce, Constitution, Article 2 Section 2, WCCF, USHSA.


43. Salt Lake City Planning and Zoning Commission, *City Plan, Salt Lake City, Utah, 1943* (City Planning and Zoning Commission: Salt Lake), August 1943, 64.


45. *Alice Merrill Horne—Heritage Halls Biographical Sketches*, 2-3. See also Maureen A. [Note: The original text continues with numbered references and bibliographic information.]

46. Salt Lake City Commission Minutes Book, December 8, 1936, 719; and Report by Harry L. Finch and Alex Buchanan, Jr. of the City Zoning Commission, December 8, 1936, USA.

47. Ibid.

48. Salt Lake City Commission Minutes Book, January 6, 1937, 8, Report from the City Attorney's Office, USA.


50. Salt Lake City Commission Minutes Book, January 7, 1937, 10, and January 19, 1937, 36, USA.

51. "What Mining Means to Utah," (Salt Lake City: Salt Lake Chamber of Commerce, 1936), 5-6 and 21; and "Utah: America's Great Mining and Smelting Center" (Salt Lake City: Salt Lake Chamber of Commerce, 1928), 3, USHSA.


53. "City Board Orders Sweeping Program to Curb Smoke Evil," *Salt Lake Tribune*, February 19, 1941, 21. See also City Commission Records, January 29, 1941, 77, #16, SLCCBA.


56. Women's Chamber of Commerce to Salt Lake City Mayor and the City Commission, April 28, 1941, WCCF, USHSA.

57. City Commission Records, March 7, 1941, 179, SLCCBA.

58. Ibid. 181. See also "Contending Units Advised to Get Together," *Salt Lake Tribune*, March 8, 1941, 19.

59. City Commission Records, March 7, 1941, 181-182, SLCCBA.

60. State Planning Board, "Advantages to Utah's Metaliferous Mine," 4, microfilm, USA.

61. Salt Lake City Planning and Zoning Commission, *City Plan, Salt Lake City, Utah, 1943*, 59.

62. City Commission Records, March 7, 1941, 182, SLCCBA. See, also, for example, City Commission Records, November 25, 1930, 625, wherein the city engineer complained that the D.R.G.W. had failed to comply with the smoke laws. See also Letter from Commissioner of Streets and Public Improvements to City Commission, October 17, 1934, 567-68, SLCCBA. The issue with the railroads continued well into the 1960s in fact, amid continuous promises of substituting diesel engines for coal. As previously documented, the Salt Lake Chamber of Commerce and the coal industry also joined forces to create several pamphlets trumpeting the advantages of Utah’s mining and other mineral industries.

63. "Contending Units Advised to Get Together," *Salt Lake Tribune*, March 8, 1941, 19. See also City Commission Records, March 7, 1941, 182 and March 13, 1941, 199, SLCCBA.

64. City Commission Records, March 19, 1941, 211, petition #8, SLCCBA.

65. "Official Proposal of a Special Committee Representing the Organized Groups Who Favor Elimination of Smoke Through Coal Processing," March 20, 1941, WCCF, USHSA.

and "City Adopts Program to Curb Smoke," *Salt Lake Tribune*, March 28, 1941, 17.

67. "City Adopts Program to Curb Smoke," *Salt Lake Tribune*, February 28, 1941, 17. See also, City Commission Records, March 27, 1941, 236, petition #48, John B. Matheson to the City Commission, SLCCBA.

68. "Smoke Control Cuts S.L. Pall by 39.4 PerCent in October," *Salt Lake Tribune*, November 6, 1941, 17.


73. Women's Chamber of Commerce President's Report, March 7, 1938, 2, WCCF, USHSA.


76. Teaford, *Post-Suburbia*, particularly chaps. 1 and 2.


78. Ibid., 196.


80. Johnston, *The Radical Middle Class*, 16-17 and 75.


82. See for example, Rome, *Bulldozer in the Countryside*, and Stradling, *Smokestacks and Progressives*.