Chapter 2
The Role of Business Leaders in Community Sustainability Coalitions: A Historical Perspective

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The environmentalist Paul Hawken recently published an article in *Orion Magazine* in which he lauded the hundreds of thousands of organizations in the USA and countries around the globe that are working to find solutions to an array of increasingly serious environmental, economic, and social justice problems. These groups come from all parts of civil society, including business. As Hawken puts it, they include "research institutes, community development agencies, village- and citizen-based

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organizations, corporations, networks, faith-based groups, trusts, and foundations." They are part of broad-based, grassroots movements that are working, often collaboratively, at the local as well as national and international levels, to restructure communities and economies to ameliorate poverty and avert the looming social and economic crises that will result from – or be worsened by – the great environmental problems of our times: climate change, toxic air and water pollution, and the depletion of natural resources.[1]

This chapter will explore the role that progressive business leaders played in late nineteenth and early twentieth century movements to regulate urban coal smoke – that era's most threatening form of air pollution – in order to draw attention to the similar, potentially equally important role that business leaders may be able to play in today's community sustainability movements. The anti-smoke movement focused on developing technological solutions to the smoke problem and on enacting regulations to force the owners of smoking furnaces and boilers to use these technologies to abate their smoke. The regulations specifically targeted business. Like today's community sustainability movements, the anti-smoke movements involved a variety of interest groups. Like today's movements, they were locally organized and focused, though their leaders too communicated with each other regarding regulatory strategies and abatement technologies, through letters, consults, and meetings of professional organizations. Most significantly, like today's groups, they often engaged in long and strenuous political and legal battles over regulatory policy.

What is remarkable about the early struggles over smoke pollution regulation is that business leaders were among the most important and influential leaders in the struggle – despite the fact that the regulations targeted the business community. This chapter will argue that while their leadership role is now largely forgotten, it has great relevance for today's environmental struggles. Working alone, or more often in collaboration with women, public health, and other Progressive Era urban civic reformers, groups of reform-minded urban business leaders helped secure most of the anti-smoke crusade's regulatory successes. Their accomplishments speak to the strategic desirability – even necessity – of business participation in and shared leadership of today's movements for community sustainability.

Business Leadership of Urban Anti-smoke Movements

Coal smoke became an increasingly serious problem in most American cities after the Civil War. The burning of increasingly massive quantities of soft, cheap bituminous coal for transportation as well as industrial, commercial, and residential power and heat put a dark pall of heavy black smoke over these places. In contrast to the invisible green house gases (GHGs) responsible for climate change, coal smoke was a highly visible, palpable problem in late-nineteenth-century cities. The smoke not

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[1]Paul Hawken, "To Remake the World," *Orion Magazine*, www.orionmagazine.org/index.php/articles/article/265May/June2007.

only blew into the homes of residents, leaving scums of black filth on furniture and laundry drying on outdoor (and indoor) clotheslines, but also swept into downtown offices, choking the bankers, lawyers, accountants, clerks, and others at work, covering their clothing and office supplies with soot. It also swept into downtown stores, dirtying the products on public display, and made its way into warehouses, where it damaged goods in inventories. It also led to respiratory and other illnesses.[2]

Public disgust and anger at the choking, filthy smoke led to an explosion of anti-smoke activism on the part of health reform and women's organizations as well as a widening array of business organizations – from Chambers of Commerce to Citizens' Associations and engineering organizations to neighborhood improvement associations and business-led political reform groups. In some instances, these business-led groups were the primary, or even the only, leaders of the anti-smoke campaigns. In most cases, however, they were the allies of the women and public health reformers, helping them in ways that were absolutely essential to the success of smoke reform.

My first example of business leadership comes from Chicago. It concerns the Chicago Citizens' Association, an organization of businessmen who were dedicated to reforming political and environmental conditions in the city. During the late 1870s and 1880s, its members studied, proposed regulatory solutions for, and lobbied for legislation to deal with several air, noise, and water pollution problems, in addition to a wide range of the city's many other physical, social, and political ills.[3]

After helping reform-minded public officials, newspapers, and residents win a big victory in the city's so-called stench wars against the foul emissions of its packing and rendering house industries in 1878,[4] the leaders of the Chicago Citizens' Association mobilized to secure the passage of an ordinance to abate the city's growing problems with black coal smoke. They succeeded in persuading the city council to pass a smoke ordinance in 1881 that required commercial building owners to install smoke-abating equipment on their coal-burning furnaces and steam boilers to reduce their emissions of heavy black smoke to specified levels. Though it was

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[2]For descriptions of urban smoke problems, see David Stradling, *Smokestacks and Progressives: Environmentalists, Engineers, and Air Quality in America, 1881–1951* (Baltimore and London: The Johns Hopkins University Press, 1999). This kind of air pollution was a problem wherever coal was used as fuel on an industrial scale: see Frank Uekoetter, *The Age of Smoke: Environmental Policy in Germany and the United States, 1880–1970* (Pittsburgh: University of Pittsburgh Press, 2009); Peter Thorsheim, *Inventing Pollution: Coal, Smoke, and Culture in Britain Since 1800* (Athens: Ohio University Press, 2006).

[3]For an overview of the Citizens' Association's attempts to reform machine politics in Chicago, see Richard Schneirov, *Labor and Urban Politics: Class Conflict and the Origins of Modern Liberalism in Chicago, 1864–97* (Urbana and Chicago: University of Illinois Press, 1998), 53–63. Citizens' Association of Chicago, *Annual Reports of the Citizens Association of Chicago* (Chicago, 1876–1925) contains the record of its many initiatives in the area of environmental and civic improvement.

[4]Christine Meisner Rosen, "The Role of Pollution Regulation and Litigation in the Modernization of the U. S. Meat Packing Industry, 1865–1880," *Enterprise and Society: The International Journal of Business History*, June 2007: 327–8.

not the first municipal smoke ordinance in the U.S. history, this law appears to have been the first that city officials actually enforced. It authorized the Department of Health to impose fines of $10–$50 on violators. Following the precedent it had set in the battle against the packing and rendering house stench nuisance, the Citizens' Association members helped the department identify and prosecute violators.[5]

Although the association's efforts led to several years of apparently quite remarkable improvements in air quality, its victory was short lived. Enforcement of the ordinance declined, due to a lack of inspectors to monitor compliance and the refusal of local juries to convict violators. As a result, the Citizens' Association lost interest in the issue.

In 1892, however, a new business-led reform organization, the Smoke Prevention Society (SPS), stepped into the gap, going even further than the Citizens' Association had to help the city enforce its smoke laws in preparation for the 1893 World Columbian Exposition. Among other things, SPS leaders hired a staff of engineers (at their members' expense) to inspect smoking boiler plants and advise their owners about how best to control the smoke. When a hard core of property and tugboat owners continued to balk at coming into compliance with the 1881 smoke regulations, they also hired their own attorney to prosecute violators. They successfully prosecuted violators until a group of tugboat owners and railroads and other particularly stubborn repeat violators began insisting on jury trials.[6]

The reluctance of juries to return verdicts against defendants led to a series of legal defeats, and the SPS too withered away. Within a few years, however, reform-minded businessmen and technical experts were at it again, calling on commercial property owners to abate their smoke, publicizing the availability of technologies to do this, and pressing for better enforcement of the smoke ordinance. In 1903 they helped secure the establishment of a specialized smoke inspection agency, helping staff it with increasingly professionalized engineers who helped building owners diagnose their smoke problems and find technical solutions to them.[7]

These Chicago smoke reform movements exemplify how business reform organizations instigated anti-smoke crusades, mobilizing public opinion against the smoke

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[5]Chicago Department of Health, *Annual Report for 1881 and 1882* (Chicago, 1882), 31–2, 34–44; Citizens' Association of Chicago, *Annual Report for 1878* (Chicago, 1878), 8; Citizens' Association of Chicago, *Annual Report for 1882* (Chicago, 1882), 6–7; Citizens' Association of Chicago, *Annual Report for 1883* (Chicago, 1883), 6–8; Citizens' Association of Chicago, *Annual Report for 1885* (Chicago, 1885), 5–6; Citizens' Association of Chicago, *Annual Report for 1885*, 15; Citizens' Association of Chicago, *Annual Report for 1887* (Chicago, 1887), 13; Citizens' Association of Chicago, *Annual Report for 1888* (Chicago, 1888), 25–6; Citizens' Association of Chicago, *Annual Report for 1889* (Chicago, 1889), 8–9. Bitterly opposed by many businesses, the smoke ordinance was upheld by the Illinois Supreme Court in 1884 in Harmon v. City of Chicago, 110 Ill. 400, 51 Am. Rep. 698.

[6]Christine Meisner Rosen, "Businessmen Against Pollution in Late Nineteenth Century Chicago," *Business History Review*, Fall 1995: 351–97.

[7]Ibid., 398; Harold L. Platt, *Shock Cities: The Environmental Transformation and Reform of Manchester and Chicago* (Chicago: University of Chicago Press, 2005), 479–80; Frank Uekoetter, *The Age of Smoke*, 31–3.

problem and helping municipal officials pass and enforce smoke regulation with little or no support from other civic organizations and interest groups. They also reveal the up again, down again, two steps forward, one step (or more) back nature of the struggle, so familiar to modern environmentalists. A group would do battle against the smoke problem, accomplishing some success, only to be thwarted by an adverse legal decision or other problems. After the defeat, local anti-smoke reformers would regroup and begin a new movement to eliminate the smoke problem, continuing the battle.

The exclusively business-led anti-smoke movements that took place in Chicago during the 1880s and 1890s were the exception, however, rather than the rule in the late-nineteenth- and early-twentieth-century smoke wars. More often anti-smoke business leaders and their organizations worked in collaboration with women's groups and other non-business interests to achieve their regulatory goals. In some places, women organized to support regulatory movements begun by their city's leading businessmen. In other instances, the women took the lead and the men became their allies. In either case, this activism usually proceeded in waves, with a variety of business and non-business organizations working in collaboration with each other over time. Typically one group would begin agitating for smoke reform. One or more additional organizations would join in the effort to pass regulation. This activity would continue until their city council enacted a smoke ordinance. All would be well, until enforcement problems developed, often due to adverse legal decisions, or frustration set in as other problems with the existing ordinance became clear. Then, as in Chicago, a new surge of anti-smoke activism would begin. The cycle often repeated several times, sometimes continuing for as many as 30 or 40 years.[8]

In St. Louis, for example, a group of business and government leaders commenced a broad community movement for smoke regulation in 1891 by convening a large meeting of "prominent citizens, representing fifteen city clubs and commercial bodies" to discuss the smoke problem and find a solution to it. This group appointed a committee of engineers who developed the smoke ordinances passed in 1893, the first enacted in St. Louis, which required businesses to abate their emission of "dense black and thick gray," while creating the city's first smoke regulation agency (the St. Louis Smoke Commission). Though spearheaded by men, women reformers quickly involved themselves in the campaign. The members of the Wednesday Club, an elite women's club, helped the men mobilize public support for the proposed ordinance and lobby city council members. After the ordinances were enacted, Wednesday Club members also helped officials in the newly created

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[8]For general overviews of these movements in the USA as a whole, see Stradling, *Smokestacks and Progressives*; Uekoetter, *The Age of Smoke*; Robert Dale Grinder, "The Battle for Clean Air: The Smoke Problem in America, 1880–1917" (Ph.D. dissertation, Department of History, University of Missouri, 1973); Robert D. Grinder, "The Battle for Clean Air: The Smoke Problem in America, 1880–1917," in *Pollution and Reform in American Cities, 1870–1930*, ed. Martin V. Melosi (Austin & London: University of Texas Press, 1980), 83–103.

Smoke Abatement Department enforce their provisions by deploying members to serve as observers who reported on violators.[9]

According to historians Joel Tarr and Carl Zimring, the "ordinances appear to have been relatively successful in reducing some of the worst smoke nuisances." However, in 1897, the Missouri Supreme Court invalidated them. After this legal debacle, community groups began a new campaign for smoke regulation. They secured state-enabling legislation in 1901 that enabled the city to enact a new, but weak, smoke ordinance. In response to continued community agitation and a legal decision validating the new ordinance, the council passed a stronger law in 1904, but refused to appoint a smoke inspector willing to vigorously prosecute violators.[10]

The community campaigns continued, led by the Civic League of St. Louis, a business reform group, and the women of the Wednesday Club. While the Civic League focused on proposing and lobbying for structural reforms of the office of the smoke inspector, the women again tackled the problem of enforcement, sending members of the newly formed group called the "Women's Organization for Smoke Abatement" out as observers to identify and report violators of the poorly enforced smoke ordinance to the city's Smoke Abatement Department and the newspapers and lobbying for prosecution of the perpetrators. As their movement developed momentum, other civic groups began to join in, including the Businessmen's League, the Million Population Club, the Socialists, and most of the city's newspapers. In 1911, a wealthy local philanthropist, Colonel James Gay Butler, spent $50,000 to hire six inspectors and a lawyer to help the city prosecute offenders, a development that apparently shook things up enough to force the city to finally institute many of the structural reforms desired by the activists. The women activists continued to deploy their members to watch towers to help the city's smoke inspectors identify violators. These efforts reduced, though they did not eliminate the city's smoke nuisance.[11]

When World War I began, the nearly 25-year-long anti-smoke community crusade against smoke ground to a halt and the smoke problem worsened. The crusade resumed in 1923, when anti-smoke leaders of the Women's Organization for Smoke Abatement joined forces with anti-smoke members of the Chamber of Commerce to form the mixed gender Citizens' Smoke Abatement League. The league conducted experiments with smoke abatement technologies and smokeless fuels, worked with

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[9]Lucius H. Cannon, *Smoke Abatement: A Study of the Police Power as Embodied in Laws, Ordinances and Court Decisions* (St. Louis: St. Louis Public Library, 1924), 211–2, 222–3; Joel A. Tarr and Carl Zimring, "The Struggle for Smoke Control in St. Louis," in *Common Fields: An Environmental History of St. Louis*, ed. Andrew Hurley (St. Louis: Missouri Historical Society Press, 1997), 203–4; Robert Dale Grinder, "The War Against St. Louis's Smoke 1891–1924," *Missouri Historical Review* 69 (January. 1975): 192–3.

[10]Tarr and Zimring, "The Struggle for Smoke Control in St. Louis," 204; Cannon, *Smoke Abatement*, 213–22; Grinder, "War Against St. Louis's Smoke," 193–4.

[11]Grinder, "War Against St. Louis's Smoke," 194–205; Cannon, *Smoke Abatement*, 222–5; Mrs. Ernest R. Kroeger, "Smoke Abatement in St. Louis," *American City*, June 1912, 907–8.

the city's Division of Smoke Regulation to help ordinary citizens as well as business reduce their emissions, raised hundreds of thousands of dollars to educate the public about how to abate smoke, and lobbied for more power for smoke inspectors, tough controls on the types of coals that could be sold in the city, and other changes to improve smoke regulation. When its members' energy began to lag in the late 1930s, the St. Louis *Post-Dispatch* began a new anti-smoke campaign that led to the formation of a new anti-smoke committee composed entirely of local business leaders, in 1939. It succeeded in getting enacted a new smoke ordinance that required all coal users, manufacturers, commercial businesses, railroads, and residents alike to use mechanical stokers and smokeless fuels.[12]

In other cities, such as Cincinnati and Pittsburgh, where women reformers instigated smoke reform, the more politically astute leaders soon realized they needed the support and political clout of business leaders and reached out to them. Sometimes they were able to do this relatively easily. In other cases, however, they worked for years before they succeeded in forging effective coalitions with business leaders.

In Cincinnati, for example, the upper class members of the Women's Club, with the help of some local public health reformers, began a movement in 1904 to force the city to enforce its almost 25-year-old, but long dead, letter smoke ordinance. They quickly realized that they lacked the power to wield enough influence on their own, and so, with the help of their personal and class connections, they began enlisting the support of prominent businessmen. By 1906 they had enough such support to form the mixed gender Smoke Abatement League. The league included powerful business leaders as members and financial backers, including the presidents of Proctor & Gamble, Stearns & Foster, American Smelting & Refining Co., and Cincinnati Milling Company as well as Charles P. Taft, the editor of the *Cincinnati Times-Star*. Like anti-smoke reformers in Chicago and St. Louis, league members investigated the city's smoke problems and made citizens' arrests of offenders, while deploying their more connected members' considerable political clout to lobby for the strong enforcement of the 1881 smoke ordinance. The league also hired an engineer to help it with its investigations and help the owners of smoke boiler plants come into compliance with the 1881 smoke ordinance. The city eventually appointed this man as its chief smoke inspector. To help him enforce the law, the league deployed members to watch towers to identify and document violations. The league worked closely in this way with the Smoke Department through the 1910s and 1920s, before fading away during the Great Depression.[13]

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[12]Tarr and Zimring, "The Struggle for Smoke Control in St. Louis," 205–20; Stradling, *Smokestacks and Progressives*, 163–76; Uekoetter, *The Age of Smoke*, 72, 77–82; Cannon, *Smoke Abatement*, 225.

[13]Stradling, *Smokestacks and Progressives*, 52–5, 211, n. 40; Uekoetter, *The Age of Smoke*, 72. See the lists of "Subscribers and Donors" in the league's annual reports for names of individuals and corporate members. For a first person description of how league members helped the city smoke inspector enforce the law, see Matthew Nelson, "Smoke Abatement in Cincinnatti," *American City* 2 (January 1910): 8–10, Reprinted in H. Wayne Morgan (ed.), Industrial America: The Environment and Social Problems, 1865–1920 (Chicago: Rand McNally College Publishing Company, 1974), 73–77.

Women were also the movers and shakers behind smoke reform in Pittsburgh for many years. The Ladies' Health Protective Association (LHPA), an upper class women's organization founded in 1889, began to campaign for the institution of an enforceable smoke ordinance in 1891. They, too, quickly realized they needed the help of local business leaders to make significant headway in their battle. Despite their personal connections (through marriage) with the city's industrial elite, however, they faced a much more uphill battle trying to bring businessmen into their nascent movement than the Cincinnati women, due to the strong opposition of Pittsburgh's iron and other manufacturers. Their 1892 effort to solicit the support of the Engineering Society of Western Pennsylvania, an organization whose members included all of the city's leading industrialists, resulted in a vigorous debate over smoke abatement within the society and finally, several months later, in an official endorsement of a very narrow set of regulations to limit the smoke emitted by commercial boilers. Though this enabled the LHPA to win enough support in the city council for passage, in 1892, of a very weak, difficult-to-enforce smoke ordinance, the city's smoke problems continued to worsen.[14]

Undeterred, the women continued lobbying for a stronger, more enforceable law requiring smoke abatement from the factory furnaces that processed iron, steel, coke, and other materials used in manufacturing. They continued to reach out to men for help, and, as environmental conditions in Pittsburgh worsened, the men began responding more positively. In 1894, several prominent businessmen joined them in suing companies that were in clear violation of the 1892 ordinance for creating public nuisances, and several newspapers began publishing articles and editorials in favor of a stronger regulation. In May 1895, the city council bowed to the pressure by passing a new smoke ordinance that was slightly stronger than the 1892 law in some ways, though still quite weak. Opponents immediately began fighting in the courts to turn back the clock to the earlier, even weaker 1892 ordinance.[15]

Coalition building moved to a new level in October 1895, when the indefatigable women of the LHPA joined forces with reform-minded businessmen and women from other women's organizations to form the Civic Club, a mixed gender organization co-led by men and women that was committed to pursuing a broad range of municipal reforms. The Civic Club made smoke regulation one of its top priorities,

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[14]Angela Gugliotta, "'Hell with the Lid Taken Off:' A Cultural History of Air Pollution – Pittsburgh" (Ph.D. dissertation, Department of History, Notre Dame, 2004), 183–231; John O'Connor Jr, "The History of the Smoke Nuisance and of Smoke Abatement in Pittsburgh," *Industrial World* March 24, 1913: 353–4; Stradling, *Smokestacks and Progressives*, 42–3, 207 n. 12. See also Angela Gugliotta, "Class, Gender, and Coal Smoke: Gender Ideology and Environmental Injustice in Pittsburgh, 1868–1914," *Environmental History* 5, no. 2 (April 2000): 165–93.

[15]Gugliotta, "Hell with the Lid Taken Off," 232–8; Robert Dale Grinder, "From Insurgency to Efficiency: The Smoke Abatement Campaign in Pittsburgh Before World War I," *Western Pennsylvania Historical Magazine* 61 (July 1978): 189–90.

but little progress was made until Andrew Carnegie, the city's best known steel maker, became a convert to the anti-smoke cause. In a well-publicized speech to the city's Chamber of Commerce in 1899, Carnegie decried the terrible impact the smoke nuisance was having on the city and called for the publically subsidized construction of manufactured gas factories outside the city (near the coal fields) and a pipeline system to distribute the gas all over the city, so that rich and poor, industry and residents alike could use gas instead of coal to heat and power their homes and factories.[16]

The solution Carnegie laid out was so inspiring that the Chamber of Commerce formed a Committee on Smoke Abatement and began working closely with the Civic Club on a solution to the smoke problem. Though the chamber leadership quickly realized that Carnegie's grand vision of a manufactured gas solution to the problem was far too costly, they pressed on with the broader goal of cleaning up the city's smoke through reform of the smoke ordinance. Working with the Civic Club, they lobbied strenuously for enactment of a rigorous new smoke ordinance with real enforcement teeth that would cover mills and factories as well as commercial buildings. In 1902 a court overturned the 1895 smoke ordinance, which forced the city to revert to the even weaker 1892 regulations, making the smoke problem even worse. The anti-smoke forces stepped up their campaign. In 1906, the newly established and reformist *Pittsburgh Sun* and other city newspapers entered the fray. With the help of front-page reports and editorials on the cost of smoke and the need for strong regulation, the anti-smoke coalition finally succeeded in forcing the city council to enact a strong and enforceable smoke ordinance that covered Pittsburgh's manufacturing as well as its commercial districts.[17]

The new ordinance sparked another intense backlash from manufacturers. The resulting litigation led to a state court decision in 1911 that declared the new regulations an illegal abuse of the city's police power. This compelled the city to revert back, yet again, to the weak 1892 ordinance. The anti-smoke forces immediately began a new campaign to persuade the state legislature to pass a bill to officially authorize Pittsburgh to regulate smoke. They won enactment of an enabling law a few months later. The city then passed a new ordinance that provided for professional inspectors and other much needed enforcement mechanisms. Unfortunately, however, the smoke opponents were not able to replicate their earlier, very hard won 1906 success in its entirety. Caving in to pressure from angry manufacturers, the city council exempted Pittsburgh's iron and steel mills from the new smoke ordinance's strictures, and their smoke continued to plague the city.[18]

The battle continued. Andrew and Richard B. Mellon, scions of one of Pittsburgh's premier industrial and banking families, founded a research institute

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[16]Gugliotta, "Hell with the Lid Taken Off," 238–44.

[17]Grinder, "From Insurgency to Efficiency," 190–9; Gugliotta, "Hell with the Lid Taken Off," 247–313; O'Connor Jr, "History of the Smoke Nuisance and of Smoke Abatement in Pittsburgh," 354.

[18]Gugliotta, "Hell with the Lid Taken Off," 313–7; O'Connor Jr, "History of the Smoke Nuisance and of Smoke Abatement in Pittsburgh," 354–5.

at the University of Pittsburgh the year the new smoke ordinance was enacted and commissioned it to study the city's smoke problems. Publication, in 1913, of the first of the Mellon Institute's reports on the harmful impacts and high economic costs of smoke inspired the Pittsburgh Chamber of Commerce to convene a meeting of the city's business and women's organizations that led to the formation of a new anti-smoke organization, the mixed gender (though male-dominated) Smoke and Dust Abatement League. The league lobbied for passage of a stronger smoke ordinance and succeeded in securing passage of such a law less than one year later. With this victory in hand, its members pressed city officials to enforce the tough new regulations stringently. They also initiated campaigns to educate the public to the harm caused by smoke and the many economic and public health benefits of smoke abatement, as well as the availability of various kinds of equipment for reducing smoke emissions. These efforts were so successful that the number of Pittsburgh's "Smoky Days," as defined by the U.S. Weather Bureau, declined by 50% between 1912 and 1917. Of course, the 50% reduction in smoke was a far cry from complete elimination, but this was still a significant improvement. The reductions took place not only in the central business district, but also in industrial parts of the city that were not covered by the smoke ordinance. In fact, so many of the city's factories voluntarily reduced their smoke emissions (to save fuel costs) that it became obvious that the opponent's claim that it was economically and technically impossible for industry to abate factory smoke was wrong, and the city council expanded the smoke ordinance to cover the manufacturing district.[19]

After these successes, much of the energy seems to have gone out of the popular movement for smoke regulation in Pittsburgh. However, it resumed in the late 1930s, after the city eliminated its Bureau of Smoke Regulation. Again women reformers collaborated with businessmen to advocate for strong, new regulations. Among the groups involved were the Chamber of Commerce and the women-led Civic Club and League of Women Voters. They succeeded in enacting a new ordinance in 1941. It was modeled on the one enacted in St. Louis and regulated residential as well as industrial smoke. After its passage, two new groups, the United Smoke Council, composed of 80 allied Pittsburgh and Allegheny County organizations, and the Allegheny Conference on Community Development, a group committed to revitalizing the central business district and the regional economy, assumed leadership of the movement, working to help residents and businesses come into compliance with the new regulatory requirements. They also lobbied the state for the power to regulate railroad smoke. The city received this authority in 1947.[20]

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[19]Gugliotta, "Hell with the Lid Taken Off," 368–450.

[20]Ibid., 476–614; Sherie R. Mershon and Joel A. Tarr, "Strategies for Clean Air: The Pittsburgh and Allegheny County Smoke Control Movements, 1940–1960," in *Devastation and Renewal: An Environmental History of Pittsburgh and Its Region*, ed. Joel A. Tarr (Pittsburgh: University of Pittsburgh Press, 2003), 145–73.

Learning from History

What lessons should today's community sustainability activists draw from the history of business involvement in smoke regulation in the late-nineteenth- and early-twentieth-century cities? I would argue that these histories represent a counter-argument to the lessons learned from the more recent wars over environmental regulation, during the 1970s, 1980s, and 1990s, when business firms and their trade organizations were the enemies, not the leaders, of pollution and other kinds of environmental regulation. While those more recent experiences taught environmentalists to fear and loath business, the history of smoke regulation demonstrates the utility of building coalitions with progressive business leaders to achieve strategic political and regulatory goals.

The time seems ripe for such collaboration again. Indeed, it is already starting to happen – at the national and international, as well as the local, community levels. Growing numbers of major industrial and financial corporations have become members or corporate partners of climate change projects sponsored by national and international environmental NGOs, like CERES, WWF, the PEW Center on Global Climate Change, the Aspen Institute, and the World Business Council for Sustainable Development.[21]

Some NGOs (and corporations) have also developed programs to restructure markets in ways that further environmental goals. The U.S. Green Building Council, for example, has promulgated a set of green building standards and awards that is driving the change not only in the building supply industry, but also in the architecture profession, as architects to bone up on green building design. The Forest Stewardship Council has developed a set of highly regarded sustainability standards and a certification process that is having a similar impact in the forest management and products fields.[22] CERES sponsors the Investor Network on Climate Risk (INCR). The over 60 institutional investors, investment banks, and other financial institutions that participate are leveraging their collective power to deploy their portfolio investments and shareholder rights to pressure Fortune 500 corporations to improve their climate policies, investment strategies, and carbon emission disclosure practices. In the absence of a U.S. government–sponsored carbon cap and trade market, the Chicago Climate Exchange (CCX) created a voluntary market that enables participating companies to make voluntary but legally binding commitment to meet annual GHG emission reduction targets, sell or bank CCX offsets if

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[21] http://www.ceres.org/page.aspx?pid=705; http://www.worldwildlife.org/what/index.html; http://www.pewclimate.org/business; http://www.aspeninstitute.org/policy-work/energy-environment/our-program; http://www.wbcsd.org/templates/TemplateWBCSD5/layout.asp? MenuID=1. For a general overview, see Andres R. Edwards, *The Sustainability Revolution: Portrait of a Paradigm Shift* (Gabriola Island, BC: New Society Publishers, 2005), 49–112.

[22] http://www.usgbc.org/; http://www.fscus.org/

they reduce their emissions below the target level, or buy offsets if they miss the target.[23]

Much like the business-led smoke abatement organizations of old times, these organizations and programs provide technical advice and guidance to participating firms to help them reduce their GHG emissions and identify market opportunities to provide climate-protecting products and services to others. They also convene discussions with U.S. and international policy makers, organize conferences on policy developments, and encourage participating firms to lobby government officials and policy makers in favor of climate change regulations, while issuing reports designed to influence policy debates.

In addition to these high-profile, national and international programs, organizations, programs, and networks are proliferating at the regional, state, and local levels that encourage, provide technical guidance to, and otherwise work to develop environments for firms to improve their carbon disclosure, reduce their GHG emissions, develop and market environmentally friendly products, and make other changes needed for communities to become more environmentally sustainable. Groups of people in small businesses and professions are coming together to form sustainable business community groups as a way for their members to gain moral support and business connections for green business endeavors.[24] Trade organizations have committees and working groups that convene sessions at trade conferences that develop and promulgate voluntary standards and other guidance to help firms in their supply chains work with each other more cost effectively to reduce the environmental footprints of their products. They also advise state and local government authorities on sustainability issues, often in collaboration with local environmental NGOs.[25]

If the history of smoke regulation is any indication, these sustainability-oriented business organizations can do more than provide technical advice to community policy makers regarding environmental best practice. They can, like the anti-smoke businessmen of old times, also join forces with community environmentalists to lobby for the regulatory policies needed to achieve sustainability goals, leveraging their resources and political influence to help environmentalists pass the legislation and revenue measures needed to enable towns and cities to reduce their harmful

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[23]http://www.incr.com/NETCOMMUNITY/Page.aspx?pid=198&srcid=-2; The Carbon Disclosure Project is a similar London-based international NGO. http://www.cdproject.net/; http://www.chicagoclimatex.com/

[24]http://www.sustainablebiz.org/; http://www.bayareaalliance.org/business-diff-sustainable.html. For links to a set of similar organizations in other states, see http://www.living economies.org/networks.

[25]Several semiconductor trade organizations have programs in this area. See, for example, http://www.sia-online.org/backgrounders_wsc_eshtf.cfm and http://wps2a.semi.org/wps/portal/_pagr/113/_pa.113/798. For activity at a local level in Silicon Valley, see http://svlg.net/campaigns/cleanandgreen/index.php. See also http://www.piba.org/sponsored_events.html (these events change over time).

environmental impacts and become more sustainable. If history is a guide, environmentalists would be wise to do as smoke reformers did and reach out to them with an eye toward working together to achieve shared goals.

The Darker Side of Business's Role in Smoke Regulation

Of course, environmentalists face risks working with business to achieve environmental goals. History also provides perspective on this darker side of the issue of environmental collaboration. Some historians have looked at business's role in the anti-smoke movement with a particularly critical eye. In their view, women reformers were the heroes of the movement, while businessmen and engineers were a relatively conservative force who tended to hold the movement back by focusing excessively on developing relatively low cost technical solutions to the smoke problem, rather than on simply cleaning the air. Businessmen and the other male members of the anti-smoke movement were, they claim, less willing to enact tough regulation than the women – and less prosecutorial in their approach toward enforcing such regulation.[26]

Perhaps because they view business's role in this negative way, smoke movement historians Harold L. Platt and David Stradling devote a great deal of time to the story of a particularly dark episode in the history of smoke reform that raises questions about whether environmentalists can trust their allies in the business community. Rather than a successful collaboration between business and non-business reform groups, this is a story of political betrayal and regulatory failure. I will recount it here because it illustrates, with particularly graphic force, the downside risk for environmentalists of working with the business community to achieve sustainability goals.

This particular episode took place in Chicago in the context of a crusade to solve the problem of railroad smoke. Chicago was a major railroad hub, filled with the tracks and terminal facilities of most of all the nation's many railroad companies. Heavy black smoke poured from the smoke stacks of steam-powered locomotives as well as the chimneys of depots, stations, and rail yards. In 1908, a group of South Side women declared war on the Illinois Central (IC)'s filthy smoke pollution

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[26]Harold L. Platt, "Invisible Gases: Smoke, Gender, and the Redefinition of Environmental Policy in Chicago, 1900–1920," *Planning Perspectives* 10 (January 1995): 67–97; Platt, *Shock Cities*, 468–941; Grinder, "The Battle for Clean Air"; Stradling, *Smokestacks and Progressives*. For critiques of this interpretation and more positive assessments of business's role, see: Uekoetter, *The Age of Smoke*, 20–42; Frank Uekoetter, "Divergent Responses to Identical Problems: Businessmen and the Smoke Nuisance in Germany and the United States, 1880–1917," *Business History Review* 73 (Winter 1999): 641–76; Christine Meisner Rosen, "Business Leadership in the Movement to Regulate Industrial Air Pollution in Late Nineteenth and Early Twentieth Century America," *Economic History Yearbook* (2009 forthcoming). See also Rosen, "Businessmen Against Pollution in Late Nineteenth Century Chicago." These works focus on smoke reform during the Progressive Era. Mershon and Tarr, "Devastation and Renewal," 169–73, discuss the limits of the business–government collaboration that guided enforcement of smoke regulation in the 1950s and 1960s.

in 1908 with attention-getting parades, petitions, and threats that they would stop cleaning their homes and washing their children if the city did not use its power to solve the problem. Platt calls their crusade the "revolt of the housewives."[27]

Like female smoke reformers elsewhere, the South Side women quickly reached out to Chicago's male business community for help. They formed the Anti-Smoke League and quickly enlisted endorsements from what Platt calls a "diverse coalition of women's clubs, neighborhood improvement associations, and professional groups" (i.e., business organizations). The women and their anti-smoke business allies also developed a good working relationship with Mayor Fred Busse, a former coal dealer, and his Chief Smoke Inspector Paul Bird and his inspectors, who had been installed in city government as a result of previous business-led movements to regulate the smoke nuisance. Bird ordered a crackdown on IC for violating the smoke ordinance. As the movement gained steam, the city council met to consider legislation to force it to abate its smoke. The IC responded by agreeing to burn cleaner burning, but very expensive, hard coal.[28]

With this victory in hand, the city council began debating a proposal to force all the railroads to abate their smoke. They soon turned their attention to the possibility of requiring them to do this through the electrification of their tracks and passenger and freight terminals. The high cost of hard coal, coupled with the success of railroad electrification in New York City, made this solution to the problem attractive to the smoke reformers. Although the huge upfront costs of electrification made this mode of smoke abatement extremely expensive and even more controversial than the original plan to force the railroads to burn hard coal, the reformers saw it as a way to modernize and rationalize the city's rail system, while solving its smoke problem much more thoroughly than a switch to burning hard coal ever could.[29]

In 1909, the Chicago Association of Commerce (CAC), a business-led reform group that supported the smoke regulation movement, stepped into the fray with a seemingly helpful offer. The CAC offered to undertake a study of the smoke problem to help the supporters of smoke reform make the positive case for electrification with documentary evidence of its benefits and technical feasibility. Such studies, like the reports of the Chicago Citizens' Association made on the terrible condition of the Chicago River in the 1880s, were often undertaken by reform organizations to document the need for regulation and other government initiatives. The CAC's report, completed in 1910, concluded that electrification was both practical and economically feasible and recommended that it begin immediately.[30]

It was at this point that CAC leaders double crossed their allies in the anti-smoke movement. Before making their pro-electrification report public, they decided to run

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[27]Platt, *Shock Cities*, 468–73; Stradling, *Smokestacks and Progressives*, 119–20.

[28]Platt, *Shock Cities*, 469–70, 485–6; Stradling, *Smokestacks and Progressives*, 120.

[29]Platt, *Shock Cities*, 485–7. See also David Stradling and Joel A. Tarr, "Environmental Activism, Locomotive Smoke, and the Corporate Response: The Case of the Pennsylvania Railroad and Chicago Smoke Control," *Business History Review* 73 (Winter 1999): 690–1.

[30]Platt, *Shock Cities*, 486–8; Stradling, *Smokestacks and Progressives*, 125–7.

it by a number of railroad officials, who persuaded them to quash it. The railroads saw little or no economic or managerial advantage to spending a fortune to electrify hundreds of miles of track as well as their extensive depot facilities and locomotives, simply to reduce smoke. Having lost the battle against electrification in New York City, and concerned that the U.S. Senate was beginning to look into the feasibility of forcing them to electrify the railroads entering Washington D.C., they were determined to do everything in their power to forestall electrification in Chicago. To do so, they persuaded the CAC leaders to begin a second, more "scientific" study, one that the railroads would generously fund, to make the case against electrification.[31]

The leaders of the CAC did more than agree to the new study. While keeping their original report secret, they persuaded the city council to postpone its vote on electrification until the new study was completed so that council members could make their decision on the basis of the new committee's well-researched evidence of the costs and benefits of electrification. Word of the suppressed 1910 report did not leak out for over 2 years. When it did, it generated considerable outrage, but by then, it was too late to save the movement.[32]

The new committee studied the issue for 4 years – two more than originally planned. The women leaders of the Anti-Smoke League and their allies continued to press for electrification, but as the years dragged on and the city council waited for the CAC's report, their movement lost momentum, while the railroads, through their intermediary, the Association of Commerce, gained control over how the smoke problem and its possible solution would be defined. For them it was a question of economics, not public health or civic beauty. The new report was finally published in 1915. Weighing in at an impressive 1177 pages and loaded with charts, graphs, and tables that gave it a distinguished air of scientific objectivity, it concluded that electrification was neither economically necessary nor economically feasible. Taking note of the committee's well-researched conclusions, the Chicago city council refused to enact an ordinance to regulate the industry's smoke. The report became an important tool in the railroads' political strategy for staving off attempts by other city governments to force them to abate their smoke by electrifying their tracks. It helped them block efforts to force them to implement this solution to their pollution problems for decades.[33]

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[31]Platt, *Shock Cities*, 487–9; Stradling, *Smokestacks and Progressives*, 115–8, 120–1, 123–6.

[32]Platt, *Shock Cities*, 486–7; Stradling, *Smokestacks and Progressives*, 126.

[33]Platt, *Shock Cities*, 486–9; Stradling, *Smokestacks and Progressives*, 126–30; Chicago Association of Commerce and Industry. Committee of Investigation on Smoke Abatement and Electrification of Railway Terminals, *Smoke Abatement and Electrification of Railway Terminals in Chicago* (Chicago: Rand McNally, 1915). For an in-depth analysis of this episode from the perspective of the management of the Pennsylvania Railroad, see Stradling and Tarr, "Environmental Activism, Locomotive Smoke, and the Corporate Response," 689–702.

History's Complex Lessons

The CAC's successful effort to prevent Chicago city council from implementing railroad electrification regulation is certainly sobering. Does it mean that history shows that working with the business community is a strategy that is doomed to failure? No – I would argue that this is much too simplistic a conclusion. The CAC's betrayal of the smoke reformers' trust exemplifies one of the worst kinds of betrayal environmentalists can encounter when they work with business to achieve political goals. There was, however, much more to business's involvement in smoke reform than this.

History's lessons for environmentalists are written in the totality of business's role in the smoke movement – in the positive as well as the negative aspects of their role. Yes, business interests continually fought regulation and often succeeded in weakening legislation and thwarting enforcement. Yes, the CAC's betrayal of the movement was terrible. But this was only half of the story. In city after city, reform-minded business leaders fought for regulation, alone as well as with women and other anti-smoke reformers, often over decades, with remarkable commitment and dedication. They provided crucially important political clout, organizational capability, thought leadership, and technical research and development in the battles to enact smoke regulations and enforce them on their fellow business interests. As a result of their efforts and those of the other groups with whom they worked, the smoky pall over the nation's major industrial cities slowly cleared.

A growing number of business leaders appear to be positioned to do the same for community sustainability today. The history of urban smoke regulation suggests that the battle for regulations to advance community sustainability will be long and hard and slow and difficult. But business leaders can help environmentalists move the cause forward, just as they did during the Progressive Era. The wide range of interest groups organizing today to advance the cause of sustainability around the world arguably constitutes a new progressive movement, a global progressive movement – much like the progressive movement that gave rise to the urban smoke abatement crusades. These groups include business firms and trade organizations. If the past is any indication, community environmentalists need to recognize and take advantage of this. They need to put their concerns about the downside risk aside (not blindly, but with awareness of the upside potential for progress) and form alliances with those in their business communities who share their interests and have the political clout and the technical expertise to help them achieve their goals.

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