Introduction: Getting Wired

Institutionalized discrimination based on race, class, and gender is a persistent theme in American history and an enduring trait of our culture.[1] Although significant progress has been made in integrating women in the professions, one of the last bastions of male dominance is the construction building trades, which is 98 percent male.[2]

The 2009 American Recovery and Reinvestment Act has allocated $789 billion for 3.5 million new jobs over the next year for a range of industries (90 percent of which are in the private sector) from infrastructural building work to energy renewal to health care. Nationally, $150 billion is set aside for infrastructural and building work, the largest allocation since the federal interstate highway system.

For states like New York, this allocation translates into the creation of over 215,000 new jobs. In New York City, the rebuilding of the Twin Towers site alone in lower Manhattan will generate over 26,000 new on-site construction jobs and approximately $3.5 billion in direct and indirect wages.

Today, the creation of "green" jobs for new construction will also increase employment opportunities in the construction sector. Preexisting buildings now require retrofitting for sustainability, energy efficiency, and weatherizing. These new jobs and conversion projects are federally subsidized. Accordingly, the awarding of procurement contracts requires eligible contractors and unionized apprenticeship programs to comply

with federal and state regulations and statutes on nondiscrimination in recruiting, hiring, and training women and minority workers.

In bidding for these contracts, employers are obligated to adhere to governmental agencies' affirmative action plans by submitting goals and timetables that show a "good faith effort" on their part to fulfill these goals. Today, opportunities exist for no- and low-income women, as well as women in general, who are interested in on-the-job training with good pay. Nonetheless, history has shown that when the "gravy train" arrives, women and minorities do not automatically get on board.

A complex set of historical and contemporary factors fuel sex discrimination despite legislative reforms and decades of feminist advocacy. Whether the construction trades have universal appeal as a career pathway for women is not nearly as important as understanding why this severe exclusion of women persists; what role workers, unionists, and employers play in sex segregation; and how women have organized their identity for collective action in response.[3]

The present-day gender war between men and women in the building trades and the events leading up to it provide a microcosm of how networks of male solidarity, in the form of fraternalism and brotherhood, stand in the way of women. This "war" in the electrical industry and trade also illustrates the degree to which social movements for equality of the 1960s and 1970s and their decline in the 1980s influenced workers' attempts at sex and race desegregation of the labor market. Women's responses to this exclusion, divided along the lines of gender, race, sexual preference, and economic status, provide insights into the clash between brotherhood and the feminist movement.

When I first began this research (although I am embarrassed to count the years), I fully expected that inclusion in the building trades would inevitably evolve due to labor market forces such as the shortage of skilled labor resulting from the anticipated retirement of workers from the baby boom generation. However, I was intrigued by a very simple observation which led to the essential question in this book: What was all the resentment and fuss about from male building contractors, unionists, and workers about a handful of women in the trades? I intended to simply explain the hostile behavior of men toward women in the electrical trade as a function of their class status as the proverbial "aristocracy of labor." I quickly realized the story of women's struggle in the industry was much larger and the collective actions of these tradeswomen for dignity and a middle-class wage much more complex. The brotherhood was rife with contradictory values that are at once egalitarian and exclusionary, proud and submissive, militant and accommodationist. "If it was easy, old men and women could do it," a construction foreman tells me at the Jacob Javits Center in New York City.[4] "Women are for after work," a male ironworker explains while we drink in a Boston pub.[5] Curiously, men I interviewed in job crews in the construction

industry drew upon what is now generally seen as outdated polarized views of gender relations in American society: "You put a woman in that crew, and the work just slows down," asserts a major electrical contractor from Philadelphia. "Women have small fingers and are much more suited to manufacturing," says my male plumber friend. "Anyway, a woman in my trade is just taking the place of a man who's trying to feed his family."

No, that is not a scene out of a 1950s movie. These remarks were made recently about women across the various building trades including women electricians. Why do working men in the trades, as well as their bosses and union representatives, still have what appear to be fossilized attitudes? Why are women are still excluded? This book attempts to answer these questions.

February 2001

Anniversary memorials at the former site of the World Trade Center Twin Towers in downtown Manhattan continue to mark the tragic events of September 11, 2001. But the ghost-like structures of the twin towers still loom against the New York City skyline and reverberate like phantom nerve endings on an amputee. Rewind back to a freezing morning in late February 2001. A cold wind blew off the Hudson River, white cumulus clouds surged past the skyscrapers of Wall Street, and the harsh wind blowing off the river bit into my face. I pulled my woolen hat over my ears and waited for my respondent to show up. For shelter, I huddled in a corner doorway of what were then the two tallest buildings in New York City—the World Trade Center.

Memories of my youthful experiences at the World Trade Center flooded through me. Suddenly it was 1967 and on a job site in lower Manhattan my father was climbing up a long snake-like ladder anchored in the bowels of the earth. He was arising from the newly dug foundation of the World Trade Center. He emerged in his dirty work clothes onto the midday sidewalk to spend his half-hour lunch with me, a high school junior, so he could "show me the job." I climbed gingerly back down with him into the pit from which he had just emerged. At the bottom, I stepped off the ladder and stood in a huge hole that resembled the impact site of a super-sized meteorite.[6] My father and I stood silent for a moment, hundreds of feet below the sidewalk. As one would imagine the vertical prowess of a basketball player by peering at his stunningly oversized shoes, I tried to imagine the building destined to rest in this immense void. My father turned to me and asked in mixed Italian and English, "So, I helped do this baby. Ti piace? [Do you like it?]"

Three years later, I again joined my father at the trade center building site, which was now about fifty stories high. This time, though, I did not come for a tour with my dad. Instead, I was there with hundreds of my peers for a demonstration of college students protesting the war in Vietnam.[7] My

father was on the opposite side. The protest quickly became confrontational. Angered by the raucous shouts of student leaders, the construction workers in their shiny hard hats of red and yellow and blue raced toward the students, brandishing work tools and clubs. They chased the students through the streets of New York's financial district, attacking whomever they could. I saw blood spurting from defenseless protesters. The workers seemed to be driven by a force beyond their control. But in the decades to follow, this violence came to vividly symbolize much more: the split between American labor and youth and a rift that is only now slowly starting to close.

My father's opinions about the war, however, changed that very day. He viewed the attack on the students as an attack upon his daughter. He became increasingly sympathetic to the antiwar movement and increasingly critical of the U.S. role in Vietnam.

Thirty-one years later, on February 27, 2001, hundreds of employees streamed out of the huge Venetian cathedral-like doors of the Twin Towers. A virtual lunchtime ballet of secretaries, executives, financial analysts, and bankers emerged into the frigid afternoon. The sheer number, energy, and diversity of the people pouring onto the noonday sidewalks were quintessentially New York. Checking and rechecking my watch for accuracy, I wondered if my interviewee, a female electrician, a woman in a man's job in one of the most tenaciously gender-segregated and masculine-sex typed industries in America, was going to show up at all.

Then someone caught my eye. I idly watched a slim young man with a blonde ponytail striding toward me. Dressed in khakis and brown construction boots, this person drew closer—and it suddenly became clear that what had looked like a man in the distance was actually a woman. She wore a Local 3 hat and a lumberjack coat with the collar turned up. Her name was Jenny, and she had granted me the interview because she was leaving the industry and wanted to tell someone her story. Joining the throng of people on the sidewalk, we headed down the chaotic alleys of lunchtime Wall Street in search of a quiet place to talk.

Halfway down the block, she gripped my arm and pulled me up short. She pointed to one of the tallest skyscrapers in sight. "Do you see that pretty neon sign up there?" She asked. "I wired that. Every time I pass by with my family or friends, I show them that. I know I won't ever get that feeling from working in a day care center." She spoke in a heavy Southern drawl.

We ducked into a small café and my tape recorder began to roll. Only seven years before, Jenny, a single mother of two, had moved from Georgia to New York City, breaking a three-generation family pattern of relying on public assistance. Soon she was inducted into electrical apprenticeship.

On her way to an $85,000-plus per year job as a journeyman electrician, she ignored the girlie pinups and the wisecracks of the guys, keeping her eyes on the prize—a middle-class existence for herself and her children.

Life seemed full of promise until the day Jenny's foreman handed her a power drill and ordered her to work close to a high-rise elevator shaft under construction, even though he knew she was inexperienced with that tool. The tool's recoil jolted her back toward the empty shaft. Grabbing onto one of the steel beams, Jenny found herself precariously dangling fifty stories above the street.

There were other incidents; once she saw the sole female worker on an otherwise all-male crew tied to the upper end of the Brooklyn Bridge's vast expansion cable. Incidents like these made her fear for her physical safety as an electrician. Jenny hoped that once she passed the apprenticeship stage and won her journeyman's card, the sexual hazing and harassment by coworkers and supervisors would stop. It did not. Instead, her journeyman status provoked even greater hostility from the men. She had been "mooned" by men on ladders, "dyke-baited" because of her attempts to organize women in the trade, and accused of sleeping with the boss when she was promoted to foreman. Now, at the age of thirty-eight, Jenny was thinking of taking an entry-level job as a daycare worker with an annual salary of $35,000 in order to escape the emotional stress of being a female electrician.

Is Jenny's story an isolated case? Not at all. After many years of research and activism on behalf of women in the construction trades, I would say that it is typical. Again and again I have heard stories from women electricians, as well as from women in other trades, that end with their leaving the industry, usually for lower paid, less skilled, less prestigious work. It is no wonder that women pioneers in the trades never became settlers.

Employers and unionists promote the view that women like Jenny leave the construction trades because they "can't hack it." Conventional wisdom among contractors and unionists holds that "women don't like to do dirty work." Male coworkers say that women get special privileges or try to advance on the job by trading sex for favors. During periods of economic contraction, men justify the gross underrepresentation of women in the skilled trades with arguments like "men must support their families" and "a woman should not take the place of a guy." During periods of economic expansion, men still exclude women under the premise that women do not view construction as their life's work. One contractor stated: "What it boils down to is that women are simply not interested." Bust or boom, women workers do not get their share of jobs in construction.

Male contractors, union leaders, and workers alike express disdain and hostility to the women who try to work as electricians, plumbers, carpenters, heavy equipment operators, or steamfitters or in other skilled trades. Only 2 percent of people in the skilled trades are women.[8] Over the past one hundred years, craft unionists, especially electricians, have to some degree, either willingly or by court decree, inducted men of diverse ethnicities and nationalities into their trades. So what is all the fuss about a handful of

women? I hope the ensuing chapters of this book will help identify the barriers women in general face, which are especially complex for women of color.

Women first entered electrical construction and other skilled trades as a result of feminist mobilization in the late 1970s. Efforts to narrow the gender wage gap included desegregating the well-paying blue-collar jobs that had been, for the most part, male preserves. The pioneer females who entered the industry found their networks of support dismantled within a decade by decreasing federal support, weakened enforcement of civil rights legislation, and waning social activism. Even though high technology jobs, such as engineering, get more public attention today, skilled trades people such as construction electricians are also in great demand. Not only is construction work expanding nationally, and related occupations such as computer maintenance and repair are predicted to grow over the next ten years, new areas such as alternative energy and sustainability technology are also emerging in building construction.[9] Similar to other industries, electrical construction is set for a major demographic shift among field workers and industry leaders. For example, the group of 55 and older electricians—those closest to retirement—grew from 33 percent to 39 percent over the past two years. The youngest age group in the industry is shrinking and experienced leaders will retire en masse over the next two decades.[10]

Because traditionally male jobs such as construction electrician require only a high school diploma and on-the-job training, they provide an avenue for economic mobility for low income and poor women—especially for single mothers, women of color who may have few options for higher education, and former welfare recipients.[11] Conventional wisdom today holds that there has been progress desegregating the sexes in the labor market. After all, some strides have been made in the fields of law, medicine, and, lately, even in male-dominated professions such as engineering. Few consider the opportunities that blue-collar work, such as the building trades, can provide for women despite the fact that in New York City alone, the construction industry overall generates approximately $26 billion in revenues annually and the contract value of construction nationally is over $600 billion. Yet stories like Jenny's are not widely known, and blue-collar women do not figure much in the consciousness of professional women who profess and promote feminism.

After three hours at the Wall Street café, Jenny and I finally put on our coats and headed back out into the cold. We did not want to part: we met as total strangers; now I knew something of Jenny's ten years of experience in the trade—the good, the bad, and the ugly, funny stories and frightening moments alike. Pausing in the street, she turned to me in appeal:

> If I can only make men understand that I love this work. You know, it's like growing children—you work and tend to their needs, you

> feed them and you clothe them, then one day, they are human beings bringing you joy and love. Buildings are like that, too. You nurture them from infancy to adulthood, from the ground wire to the top of the antenna, working every floor, investing time, labor, and good materials. Then, wow! One day, the building's done. The foreman throws the light switch and it's wired to glow!

For Jenny, becoming an electrician meant more than just a high-paying job. Wiring buildings brought her intense pride and satisfaction. And she knew she was forging the way for others.

> Sometimes I think about how women in this industry are still pioneers despite the fact that they arrived over twenty years ago. This may sound crazy, but you know the green neon lights we use on St. Patrick's Day or other holidays to honor the Irish, the Italians, and the different ethnics? I daydream about setting aside one day to honor tradeswomen electricians who tolerate harassment and risk their lives to earn a living and clear a path for all women. Pink neon is my choice—pink neon right there on top of the Empire State Building.

We said goodbye. I watched Jenny disappear in the evening rush hour crowd, just as I had watched her approaching earlier that day. Her construction boots and khaki pants stood out boldly against the Armani suits, the Gucci briefcases, and the high-heeled shoes of the white-collar workers now going home. As Jenny walked away, I looked up at the massive buildings she had, in her own words, "nurtured," and reflected on her strange analogy. Putting up a building and raising a child: such a traditionally feminine way, I thought, to describe such traditionally masculine work. I still hear from Jenny now and then. Her experiences and women electricians like her inform this book.

My training as an anthropologist influenced my interest in presenting a micro view of gender relations in construction within a macro context of larger societal opportunities and constraints. I looked for culture in the most common of places among electricians—in bowling alleys, offices, coffee shops, bars, apartments, and classrooms, as well as on work sites and city benches during lunchtime. Unlike other accounts of women in construction, I place the work site experience of women and their failure to get their proportionate share of jobs in the skilled building trades as electricians within the larger scope of preexisting institutional fraternal structures of brotherhood and the electrical industry.

I have listened carefully to male and female workers, union leaders, union dissidents, activists, and employers, and closely worked as a researcher and educator with craft unions across a broad scope of building

trades and with one New York City electrical union in particular—its leaders, workers, fraternal clubs, and affiliated employers.

Personal Background

No doubt my childhood led me to a lifetime of interest in the labor movement. I grew up in a blue-collar Italian American neighborhood in Brooklyn. As a child, I had firsthand experience of the economic insecurity and gender polarity in families headed by male building tradesmen, which was what most of the student electricians I later taught expected to become.

The scene in our Williamsburg, Brooklyn, apartment was tense on Sunday nights as my father anxiously awaited "the call" for work the next day, and its location. Feeling lucky to get a work "ticket" at all, and fearful that a wrong turn en route to the job the next morning would result in a layoff, my father would always rehearse the best route to the job. It was our Sunday night ritual: we all piled into his blue 1958 Chrysler to accompany my father as he made his trial run. On these trips, I recall, I admired him as he pointed to some of the tallest and most beautifully ornate skyscrapers in New York City, repeatedly pointing out, "I built that."

I also remember that I cried as a small child when I first noticed his filthy fingernails at the end of the day. He could never get them entirely clean. My father used to hang his dirty work clothes, often smelling of diesel fuel, in a white metal cabinet in the hallway before my mother would allow him to enter our three-room apartment. I was in charge of taking these smelly work clothes every week to the Catholic Church-owned Christian Brothers Dry Cleaning shop on Humboldt Street—a special dry cleaner for laborers that had a certain opprobrium, even among my working-class neighbors in the small but tight-knit community of Williamsburg.

Paradoxically, despite the anxiety and insecurity that seasonal work such as construction brings to families like my own, the construction work itself—with its physical prowess, economic dignity, and high visibility—helps form a "king of the castle" male identity at home. When she married my father in 1946, my mother, like so many of her contemporaries, quit her job (as a theatrical costume seamstress for Broadway) to become a wife and homemaker. She was strictly devoted to taking care of her family, freeing my father from all household and child care responsibilities so he could work at his job and volunteer for union activities. No one challenged this arrangement.

As long as blue-collar craftsmen could provide enough to support their families, not even the ensuing women's movement, galvanized by Betty Friedan's groundbreaking book *The Feminist Mystique* in 1963, could alter gender relations in blue-collar families.[12] The craftsman's primary role as family breadwinner in America's post–World War II nuclear family, made

possible by a family wage, helped sustain traditional gender relations at home.[13]

My intimate experience and understanding of working-class blue-collar values has always remained a source of conflict with my ideals as a practicing feminist. I still feel a great deal of empathy for my electrician students and their union, as well as construction workers generally, despite their stereotyped attitudes toward women. These blue-collar students work outside all day, sometimes in the freezing cold, sometimes in sweltering heat, and often under hazardous and unpleasant conditions.[14] They attend night classes and support their families. The union tries desperately to keep construction work unionized in a political climate and city where union-busting tactics of large corporations such as Disney as well as other, usually smaller, union-busting contractors[15]—organized and supported by the powerful political lobby the Associated Builders and Contractors Inc. (ABC)—are joined by a federal assault on longstanding labor legislation.[16] The economic interests of owners and contractors have prevailed in their efforts over the years to degrade the skill of the craft worker by replacing older craft tools with new time-saving devices and by the use of prefabricated materials on work sites.[17]

With regard to technology, electrician journeymen have been bombarded with technological innovations designed to streamline production and reduce labor costs, such as the introduction of fiber optics. Moreover, with the rising costs of construction, management is looking to cut labor costs. The introduction of electronic technologies such as digital record keeping allow management to better monitor work crews' performance and measure productivity of workers and straw bosses against project estimates. The changing scope of electrical construction work from its former emphasis on heavy manual labor to an increased focus on mental labor require forced applications of such new technologies as digitized voice, videotaping, and recording; communications/systems connectivity; and alternative energy and sustainability building technology. In general, electricians face many challenges over the coming decades to retain their autonomy and control over the craft and the labor supply to contractors while keeping pace with technological change requiring more sophisticated training and staving off attacks on prevailing wage laws.[18]

Management's drive to reduce spiraling construction costs also aims at hiring a cheaper workforce by circumventing unionized apprenticeship programs. Thus unions like the electrical brotherhood encounter a great deal of resistance from small but well organized contracting and subcontracting groups which lobby on behalf of the nonunion movement at the state and national policy levels.

Paradoxically, as traditional cultural definitions of masculinity and femininity are fading, polarized gender relations such as machismo and that

"king of the castle" mentality still resonate among building tradesmen. But tradesmen are no longer "masters" as they once were at work and at home.[19] Let us step back into my electrical apprentice class: understandably, it was quite a challenge to discuss social movements for racial and especially gender equality with my electrical-apprentice students without causing them to reach for their soldering irons (the electrical version of a red-hot poker).[20]

Although my students bluntly revealed their hostility and bitterness toward the entry of women and minority men into "their" trade, I felt it important to deal honestly and openly with these attitudes, knowing that behind this politically incorrect thinking lurked the fear of unemployment and economic insecurity. One might say, "She took the place of my buddy—he couldn't get in because of her." Another might claim, "Women can get married and let their husbands take care of them." Most would agree: "If it wasn't for the government interfering in our business, all these minorities would not be able to take over."

The college-level course I taught in a union-sponsored bachelor's degree program for electrical apprentices included the history, culture, and economics of the electrical construction industry and their union; the impact of the civil rights movement of the 1960s and the feminist movement of the 1970s on the industry and trades. It also included the anatomy of the electrical brotherhood; that is, the structure and function of the fraternal social clubs in the union, the social and economic changes affecting change in the craft and the industry, the growth of nonunion firms, and the danger of deteriorating health and safety standards on job sites; as well as how race, gender, and ethnic divisions can divide the union membership and weaken solidarity. Explaining affirmative action and compliance laws as a way to right past injustices against women and minorities in the trades was not going to go over well with these working-class students. I decided instead to use the history and idioms of their own trade and union to show how workers—women and men, black and white—have been divided by employers throughout history. I discussed with them how keeping out blacks and women would ultimately yield to a divide and conquer strategy on the part of contractors, and eventually weaken the brotherhood. I tried to illustrate through readings, lectures, and discussion of discrimination court decisions how their own economic security was threatened by the possibility that nonunion contractors would hire women and minorities at below-union wages. This got their attention.

At about the same time, although not a skilled tradeswoman, I started becoming active in the union and as a professor of labor studies at the State University of New York, I was recruited by the Local and by tradeswomen to deliver special lectures on topics related to sex discrimination in employment and employer and union obligations under Title VII of the Civil Rights Act of 1991. I delivered these educational workshops to male unionists at the union's educational center in Flushing, Queens, and at Bayberry Land, a

former union-sponsored summer retreat in the Hamptons for workers and their families. As an academic and labor educator, I worked then and continue to work with tradeswomen and their organizations to address their grievances.[21]

Setting, Research Method, and Relevant Literature

I was able to conduct most of my fieldwork in close proximity to where I grew up and lived, New York City, an important center for commercial building construction work. In order to illustrate how male solidarity, at first a mechanism to combat economic exploitation in the building trades by organizing strong union brotherhoods, in the twenty-first century results in exclusionary practices, I present a case study of the International Brotherhood of Electrical Workers (IBEW), Local Union 3, and the Electrical Contractors' Association (ECA), which are the most powerful brotherhood and contractors' association in the industry today. An employers' association, the ECA represents approximately fifty of the largest and oldest electrical contractors in New York City (and the country, for that matter). The ECA is comprised entirely of white men, many of whom are former Local 3 Division A journeymen (these electrician journeymen are union members who are among the highest-paid tradesmen in the country and in the construction industry[22]).

Local 3 is viewed as more politically powerful than the IBEW itself. The Local is structurally linked to the ECA through its powerful Joint Industry Board (JIB) and has tremendous political influence over other construction trade and craft unions. Currently, the union has approximately thirty-five thousand members, thirteen thousand of whom are in Division A, the elite construction division. Typical of the gender composition of the electrical industry, the remainder of the members is mostly minority women in electrical manufacturing and related divisions and occupations, including secretaries. In order to protect my respondents and their jobs, the true identities of some female and male respondents have been kept anonymous; in those cases I have substituted first name pseudonyms throughout the book. In other instances, the true names of respondents appear, with both first and last names.

Local 3 is characterized by its highly evolved structure of cross-class, cross-generational, and cross-cultural relations among workers, unionists, and employers. Internal stratification among electrical workers takes the form of different classes of workers: journeyman (highly skilled labor), apprentice (cheaper, quasi-indentured labor), and traveler (unionized electricians from other parts of the country).

The Local is organized into thirty divisions by industry, such as building construction, street lighting, electrical manufacturing, and clerical work.[23]

Other organizational elements include the Apprenticeship Program, the JIB, and eighteen strong fraternal ethnic associations known as "social clubs." These fraternal social clubs, common to many locals in the electrical workers' brotherhood but most highly evolved in Local 3, exist within and alongside the Local. Like their counterparts in the late nineteenth century such as the Knights of Pythias and the Masonic societies, the social clubs allow the brotherhood to efficiently administer union benefits and services to a large membership and serve as a training ground for prospective male union leadership. The clubs provide union members with opportunities to bond as brothers around their own identities of race, ethnicity, religion, and occupation, and to access commercial information vital to keeping jobs unionized.[24] Symbolic rituals lace every aspect of club functions and play an influential role in the brotherhood by infusing a sense of belonging on the part of its members. Every breakfast forum and social event incorporates symbols of male leadership, for example, gatherings are prefaced with a salute from various Boy Scout troops. Furthermore, social events such as the Ladies' Honor Scroll Nights, the Ladies' Nights dinner-dances, and the raffling of jewels and fur coats place wives of male electricians on a pedestal.

But we must not be fooled. Clubs, apprenticeship programs, sports clubs, fraternities, the Electchester housing complex, the JIB bowling alley and child care center, the family compound of Camp Integrity for members' wives and children, examined in the context of how some of their union husbands and male electrician spouses mistreat women on the job, are a paradox. Their rituals reflect the degree to which patriarchal gender relations that promote the image of the male breadwinner are not only interwoven into the fabric of the brotherhood, but are consciously reproduced as a blueprint for maintaining a sexual hierarchy at work and at home.

Construction unions in New York City, particularly Local 3, still maintain a great deal of influence over hiring practices in the industry (50 percent of New York City electrical workers are unionized). The unionized electrical contractors depend on Local 3 to supply them with highly trained journeymen and apprentices. The JIB runs a hiring hall where workers receive "tickets" for job assignments. Despite the power the union has over the labor supply, it is the contractors who ultimately determine hiring and employment practices in the industry. My informants generally agreed that if the contractors were serious about complying with affirmative action goals for women and minorities, the union would comply as well. Unfortunately, neither construction contractors nor building trades unions from across the various trades see the integration of women as beneficial into electrical work or the industry as a whole.

A collusive relationship like this is a significant variable in determining the speed at which a unionized craft occupation integrates women. As in other industries, it is management that holds the key and can unlock the door of bigotry in the workplace. Knowing the employers in this study to be

some of the most powerful and wealthy contractors in the country, I was curious as to why employers were so disturbed about the entrance of a handful of women into the field. And why does Local 3, which has a relatively good track record of recruiting ethnically diverse tradesmen into the trade and union, fear a small group of tradeswomen in the union and on work sites? These were two simple questions which went begging in search of a method for an answer.

Anthropologists can no longer portray non-Western peoples with unchallenged authority. The ethnography of complex societies and institutions employ methods used in other social science disciplines to explain otherness and difference within the cultures of the West.[25] The ethnographer is compelled to climb down from the mountaintop of generalized theories to experience social relations on the ground. Thus this book is an amalgam of historical archival research, ethnographic methods of participant observation, and qualitative and quantitative analysis. The text ties the two dimensions of exclusion (that is, the organizational and the subtle) in order to provide explanations for why male and female workers are accepted or excluded at the construction job site.

I view the workplace and organizational culture of the electrical trade and brotherhood as contested, temporal, and emergent.[26] The industry and occupation are constantly changing and electrician brothers are trying to adjust. I never set out to do only a case study; in fact, electrical contractors are not the only building tradesmen to resist compliance with affirmative action. New work groups in the skilled trades such as women and minorities are more fiercely resisted in the higher-skilled mechanical trades such as carpenters, electricians, plumbers, and steamfitters, as compared to less-skilled "trowel" trades like laborers. However, it is in the unionized sector of construction wherein the greatest opportunities exist for decent work. Moreover, the unionized sector of the building trades is subject to greater governmental oversight than nonunion due to the necessary certifications required to operate union apprenticeship programs. If greater enforcement is applied from the federal and state level to monitor unionized contractors' compliance with affirmative action regulations, then there is cautious optimism for inclusion.

In general, tradesmen and their labor organizations have fought to exert control over the available labor supply to contractors and to achieve a "family wage." Since the late 1970s, women have been struggling to integrate with little progress. But it is in a mechanical building trade, like electrical construction, that it is most difficult. Furthermore, as previously stated, there exists an ample amount of differences between and among these highly skilled mechanical trades and their craft union brotherhoods to warrant not only an industry-specific but also a trade-specific study.

What are these differences? Local 3 is distinct because of (1) its highly evolved forms of fraternalism and brotherly rituals; (2) its tenacious and successful maintenance of formal craft apprenticeship traditions; and (3) its

powerful influence over other locals in the IBEW, the IBEW itself, as well as New York unions as a whole. My goal with this case study is to shed light on broader issues of race, gender, and class-driven power dynamics that account more broadly for sex segregation in the labor market.

In the early 1960s, it was obvious that exclusionary hiring practices were emblematic of broader societal issues of poverty and inequality. Race riots and demonstrations on inner-city construction projects were commonplace, such as Harlem Hospital, the Downstate Medical Center in Bedford-Stuyvesant, and Woodhull Hospital in Brooklyn, but racial strife on construction sites and ethnic succession in metropolitan areas such as New York City are challenges that the electrical brotherhood has weathered. There are, however, new challenges building trades unions confront today: the advancing nonunion movement, new technological innovations coupled with management's push to streamline production in work crews, and today's globalization trends, all of which threaten to short-circuit traditional forms of union solidarity and brotherhood.

Another threat to the electrical trade unions are companies such as AT&T and the telecommunications industry who tempt skilled electricians who have been trained in rigorous union apprenticeship programs away from the unions to work as managers. In addition, the electrical brotherhood has recently faced antitrust lawsuits brought against it by the telecommunications industry that challenge the time-honored practice of a closed shop (union members only) on construction sites.[27] On the supply side, historically, women have been viewed as incapable and uninterested in building trades work. Paradoxically, black men and other immigrant and minority male workers are tolerated at a higher level than women across the board in the electrical industry and in other building trades as well.

In the face of employer brutality and deadly working conditions, the white working-class men of the building trades formed powerful unions to look after their interests. Whether or not they will be able to sustain this power will depend on their ability to adapt. In the electrical trade, the triangular relationship that fosters cohesion and collusion among male workers, the union brotherhood, and the contractors association unites mostly white men in a cross-class alliance to keep women and, to a lesser extent, minority men out of their ranks. For the union brotherhood as well as other building trades unions to survive, these patriarchal and exclusionary practices need to change.

The Participants

As an ethnographer, I set out not merely to invite respondents for interviews but to learn from electricians and their organizations. By gaining access to construction sites, electricians' homes, union halls, apprenticeship and industry meetings, as well as cultural, educational, and recreational events, I

was able to survey the organizational structure of the brotherhood and contractors' association. In addition to this form of participant observation, I conducted in-depth interviews with male and female journeymen and apprentices, male union leaders, and electrical contractors.

More than four hundred people were interviewed for this book; three hundred were female electricians (journeywomen and apprentices) who entered the field from the 1970s to 2008. Of this latter group, 231 were of European American extraction, fifty-six were native black women, ten were Hispanic women, and three were Asian American. I also interviewed ninety-five male journeymen, of whom twenty-five were black (two of whom were part of the first class of African Americans to enter the Local), ten were Hispanic, eight were Asian American, and fifty-two were of European American extraction. Among the union leaders and activists, five top officers of the Local and JIB (all white men except for one African American apprentice director) were interviewed, including the son and grandson of the founder, the former education director at the Local, business managers, and ten contractors (eight males and two females) who supply most of the unionized share of electrical contracting for skyscraper work in New York.

I also interviewed former and current fraternal club presidents in the brotherhood, and when access allowed, the founders of specific clubs such as the Jewish Electrical Welfare Club, the Asian American Cultural Society, the Amber Light Society, Women Electricians, the Women's Active Association, and various counselors and officers of Camp Integrity (the Local's former summer camp for members' children) at Bayberry Land on Long Island. In these interviews, I had several aims. First, I wanted to include a substantial sample of women who had entered the trade from the first group to the last wave of entrants (i.e., from 1978 to 2008). Second, I wanted to obtain the views of the leadership of this craft union, its employers, and its rank-and-file workers regarding their thoughts about ethnic, racial, and gender integration. Even though my intention was to tell the story of women's heroic attempts to integrate the industry, I quickly became aware of the limitations of primarily using first-person testimonies and the importance of going further to see this integration from the eyes of male workers, unionists, and employers, in comparison with and contrast to the prior integration of other groups, such as minority and immigrant men. My sample included women of color, especially Latinas, African Americans, and Asians, in proportion to their numbers in the trade. Although interview questions were structured, I allowed a significant amount of time for respondents to veer off on tangents.

Restructuring my original goals allowed me to obtain valuable insights. Most interviews were tape-recorded and transcribed verbatim so that each interviewee's story could be read "as a whole" and also compared with others for differences and similarities of informants' opinions to the extent they might be shaped by such variables as race, age, class status, sexual preference,

and education. In this way, I was able to sort out and analyze some of the most salient themes in both women's and men's experiences concerning sex and racial integration in this occupation, and to observe both the logic and contradictions in the primary research material.

Although the male journeymen were rather reluctant to speak with a researcher about their industry and union, the apprentices—both male and female—were more accommodating, seeing it as an opportunity to tell their side of the story as an underclass of workers.

Stepping inside the circle of power within the union brotherhood was quite another matter. The brotherhood operates like a prototypical military organization, with a strict chain of command. If I violated protocol, I would be shut out and my research shut down. The ability to conduct extensive interviews with union officials, workers, electrical contractors, and other relevant respondents was facilitated by the fact that I was a former professor of labor studies at the State University of New York (SUNY), where the Local to this day maintains its electrical apprenticeship program. This entrée allowed me to delve into some of the oral history presented in this work from the eyes of unionists, contractors, and workers who were willing to speak to me both on the record and anonymously, as appropriate. At the time I taught in the electrical apprenticeship college program at the Charles Evans Hughes High School in Manhattan, I was also able to conduct in-depth interviews that form the essential basis of the book with pioneers of the Local, especially with the late Harry Van Arsdale Jr.

These interviews with male and female electricians provided a comprehensive understanding of the problems and issues that each generation of female electricians encountered in this male-dominated industry and union from 1978, when the first wave of female electricians entered, until the beginning of the twenty-first century. Since the industry is predominantly male, I interviewed an equal number of men in the field, as well as union leaders and industry representatives, in order to construct an understanding of their collusive relationship regarding women's attempts at integration.

In addition, it was necessary to compare the entrance of women in the late 1970s with the entrance of other vulnerable male workers, such as black and Hispanic men, into the IBEW in earlier periods. In order to achieve the aims of the book, a complex set of actions and constraints were considered: (1) the history of the brotherhood and its organizational structure prior to women's arrival on the scene; (2) the historical formation and transformation of male fraternalism in the electricians' trade and its relationship to a culture of exclusion; (3) the nature of the labor-management relationship craft unions have had with employers' associations and the ways in which this has shaped men's and women's experiences in the trades; (4) the comparison of women's attempts at integration with those of earlier groups such as black and minority men; and (5) the interrelationships of race, gender ideology, and sexuality as patterns of unity or division among workers.

The choice of relevant scholarship for any book will no doubt always bring criticism about what was left out. This book is no exception. The vast literature on the social, psychological, and supply-side aspects of women's experiences in nontraditional jobs and apprenticeship, as well as the rich and colorful oral histories by authors such as Molly Martin, Susan Eisenberg, and Jane Schroedel, are indeed important for this work. Nonetheless, the central focus of this study of electricians differs somewhat from these prior works.[28] Instead, prior scholarship in historical sociology, labor history, political economy, and anthropology are more influential.[29] In this book I attempt to demystify the process of labor as a fully human process and, in place of overly deterministic views of gender and race segregation in the workplace, workers are portrayed as actors who continuously shape their own identities within specific contexts of privilege and opportunities as well as by the larger social forces in society.

Historical works on the history of the building trades were drawn from W. J. Rorabaugh's account of the devolution of craft apprenticeship, its race-driven aspects, and links to the patriarchal family in America.[30] Sean Wilentz's account of the degradation of craft labor in New York provides an important historical context for this book. Wilentz portrays the degradation of craft trades before and after electricians entered the labor scene in late nineteenth-century New York City.[31] In addition, David Montgomery's work linking manliness with workers' and labor organization resistance to unfair labor practices by employers in construction helped to shape my understanding of craft pride and the role gender solidarity plays among today's electricians.[32] For an international comparative view, Eric Hobsbawm's work on pre-industrial journeyman and apprentice craft culture provide a reference for some of the attitudes found among male electricians today.[33]

Historical case studies of male and female workplace culture were invaluable such as the traveling tradition of unionized cigar makers by Patricia A. Cooper,[34] Ileen A. DeVault's study of gender relations in craft unions and strikes,[35] Alice Kessler-Harris's work on the social meaning of women's devalued wages at work, and its relationship to their subordinate status at home.[36] In addition, Kessler-Harris's work on race and gender integration and public policy influenced me to look comparatively at processes of integration as simultaneously distinct from but related to one another.[37] As one black journeywoman electrician stated, "race, like torque, compounds the problems that women of color encounter." More recently, Nancy MacLean's excellent account of race integration in general into the building trades is relevant to the inclusion of men of color into the brotherhood's fraternal clubs, despite the strong degree of racism in society.[38]

Sociologists such as Ruth Milkman influenced my understanding of employers' customs regarding hiring patterns in auto and electrical work. British researcher Cynthia Cockburn enriched my understanding of rapidly changing technology in craft trades and the role it plays in eradicating or

reinforcing separate work spheres between women and men.[39] But it is Mary Ann Clawson's seminal work on the transformative role of fraternalism in shaping gender relations at work and at home in eighteenth-, nineteenth-, and twentieth-century America that is the main literary inspiration for *Live Wire*.[40]

According to Clawson, social fraternalism in the nineteenth and early twentieth century challenged the concept of women's superior moral values by creating and preserving male authority outside the nuclear family in a "men's world of virtue." Free-labor ideology, another aspect of fraternalism, addresses non-economic relations; that is, men rising above the cruelties of business to assert solidarity across classes. Thus employers and workers join together in fraternal bonds. Gender, not class, is the solidarity at the root of social fraternalism and the nexus of social relations at work and in leisure. There has never been a more compelling case of the transformational importance of fraternalism and its role in sex segregation than the modern-day electrical brotherhood.

The electrical brotherhood, or any union for that matter, is not directly descended from early modern European fraternities or nineteenth- or early twentieth-century fraternal trade organizations. But it has appropriated, reinterpreted, and selectively transformed the fraternal notions of those organizations.[41] By wiring together formal and informal cultural forms of male bonding and gender solidarity for purposes of organizational efficiency and commercial expansion, the electrical brotherhood and its joint industry board provide the nexus that privileges white male workers, unionists, and employers to the exclusion of women.

Milkman, Cockburn, and Clawson, among others, have in different ways illustrated that management's gendered patterns of recruiting, hiring, and promoting may also influence a sexual hierarchy in workers' collectives like union brotherhoods. What these authors have left unexamined are the ways in which a collusive relationship among male workers, unionists, and employers once used as an effective means to combat employer exploitation, operate in the twenty-first century to the exclusion of women.

Live Wire is my response to this. Chapter 1 surveys the background history of the electrical construction industry, the union concept of "brotherhood," and women's presence in the trade. Chapter 2 takes a close look at Local 3, its ethnographic history, organizational structure, and fraternal character forged by resistance and accommodation to the free market's laws of supply and demand. Chapter 3 details how women secured a foothold in electrical construction and the brotherhood in the first place, and how they have struggled with the union to maintain it. Chapter 4 takes the reader through a typical electrical construction workday, showing how the dynamics of gender politics color the interactions of construction workers on the job and at home. Chapter 5 focuses on the powerful factor of race on women in the industry. Chapter 6 lays out the dramatic story of the ongoing

attempt to institutionalize women electricians' interests through a succession of women's sororal clubs—and the complicated question of whether these clubs should work as auxiliaries or adversaries to the male union leadership. In the concluding chapter, the experiences of women electricians are recapitulated and analyzed for broader insights into the role that fraternal customs; workplace traditions; conceptualizations of the family; the intersectionality of race, gender, and ethnicity; and occupational culture play in shaping patterns of workplace inclusion.

The concluding chapter also suggests ways in which present-day public policy can influence greater equality of opportunity in the industry and union brotherhoods to get women down to the job sites.