

## FOUR

## Degradation without Deskillling

### Twenty-five Years in the San Francisco Shipyards

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I am of this world and this essay is an attempt to step back and make coherent sense of social processes that most of the people living through them find almost impossible to comprehend. I worked as a boilermaker, welder, and shipfitter in the shops, shipyards, and construction sites of the Bay Area from the early 1970s until I retired from the actual physical labor of the trade in late 1997, soon after I finished the research for this paper. Since then I have been the Recording Secretary and Dispatcher for Boilermakers Local Lodge #6. Thus, as both a skilled worker and as a union official, I have experienced the systematic assault on my craft and the erosion of the power of my union. In this paper I attempt to analyze the effects and the causes of the sharp decline of the Bay Area ship repair and heavy steel fabrication industries over the past couple of decades from the workers' perspective. Global competition, the end of the Cold War, and the transition of both the national and local economies from the industrial to the information age have decimated the industries in which we try to earn our livelihood. Steady work for thousands, so plentiful in the mid-1970s, is a thing of the past. Those thousands have been reduced to the several hundred workers who retain seniority at the few union shops and shipyards still in business. Hourly wages, the envy of metal trades workers around the world during the four decades following the start of World War II, are now less than the average earned in the advanced industrialized countries, and some "unskilled" positions

are being paid wages, especially in nonunion yards, comparable to those of shipyard workers in South Korea. Even at these wage rates, things would not be so bad if the work were steady, but most of the members of my Local work no more than half of the year at their trade. With the decline of the industry has come a parallel diminution in the power and the quality of representation that the unions provide for the workers. Rank and file participation has declined steadily, and contact and solidarity among the crafts has lessened. Labor-management relations, which in the past were the product of compromise between relatively powerful unions and bosses who at least recognized the need to elicit the cooperation of our skilled labor, had deteriorated by the mid-1990s to virtual management dictates. Shipyards, heavy steel fabrication, and construction are inherently dangerous industries to work in, but speed-up, the lack of real union representation at the job site, the breaking down of respect for the practice of traditional crafts, and the failure of management to provide for the training of a new generation of workers over the last two decades have made the shipyards far more hazardous. The most important reason for my leaving the trade at a relatively young age (fifty-six) was my belief that the local shipyards are an accident waiting to happen, and I did not want to become one of their victims.

Detaching oneself from the field of study is a problem that probably plagues all ethnographers. This is especially true for me. Working as a metals trades craftsman has not been the quaint, the exotic, or the unknown for me. Unlike most academic ethnographers, I did not go to the shipyards to do fieldwork; I went there to earn a living. My participation preceded by almost a quarter of a century the kind of systematic and conscious observation that I have undertaken in the last several years. I made scattered diary entries over previous years, but did not begin to make systematic field notes until I began to conceptualize this paper. Thus, much of my firsthand knowledge of earlier years is drawn from memory and present-day discussions with other workers remembering their past. While memories can be faulty and distorted because they are reflections through the lens of our present-day understandings, my account can claim the authenticity that comes from long acquaintance with the subject.

My experiences over the years are very similar to those of other

workers. I know what it is like to do the work every day, to be laid off at inopportune moments, to vote on contracts with my livelihood at stake, and to decide to what degree to risk my personal safety in order to keep my job. My presence did not "contaminate" the research site. The social processes that I am attempting to analyze were not altered by my presence, at least not as a researcher. As a Jew who entered the trade *after* receiving my B.A., who got my master's degree twenty years later, and who became a Ph.D. candidate in sociology at UC Berkeley while still working in the yards, I have always appeared to be very different from almost all the other workers; and in some respects I certainly am. I have been nicknamed "Rabbi" and "Professor" and been called a lot worse, but first and foremost over the years I became one of the guys. That is how I defined myself at work, and that is how I am seen both by my fellow workers and by management. Dozens of rank-and-file workers are either friends or acquaintances. I had a respectful, although at times contentious, relationship with the previous Business Manager of my local. I have a close and cooperative relationship with the present Business Manager, for whom I have worked. I am on good terms with the officers of many of the locals of other crafts. I have had ongoing dialogue with members of management, including those at the highest level. My research questions were formulated after I already had intimate knowledge of the social processes at work and were refined as my research continued. This essay is informed by these firsthand experiences: I know the work, I know the people, I know what is real and what is not.

I am of this world and I cannot leave. I am personally, emotionally, and intellectually welded to these workers and these industries. Yet I partially detach from them when seeking the perspectives needed in my various projects to document our lives. I have written about the history of our predecessors in the trades, and I am in the process today of memorializing aspects of our labor process through black and white photography. But I am reluctant to assign finality to social processes that are still unfolding. For all the inexorability of those "global forces," individuals have their own ways of challenging them, negotiating them, eluding them. Even as I write, I know that tomorrow I might return to the dregs of those dreaded shipyards to earn a needed dollar and exchange an insult with my bosses. This is my world. It is the world of the academy that remains exotic and difficult for me.

Almost every day, but especially on Thursday, which is payday, shipyard workers hurrying to and from work at San Francisco Drydock walk past Kevin Harris (not his real name) and are reminded just how precarious is their hold upon their jobs. Until the early 1990s, Kevin was employed in the shipyard as a journeyman welder, driving a late-model four-wheel drive vehicle and, if not prosperous, was certainly getting by with a reasonably high-paying, but no longer steady, unionized craft job. An accident on the job, or a dispute with management (accounts from workers who knew him while he was still working differ), has made him unemployed, forced him into homelessness, dependent upon SSI and donations from workers who knew him when, and who still have their jobs. Seemingly unable to sever his connections with the workplace that has discarded him, Kevin apparently sleeps among the debris around the shipyard's industrial area. Although he is an extreme case, Kevin is hardly unique. His plight illustrates how, over the last twenty-five years, conditions have deteriorated for men, like myself, who seek to earn their livelihood in the San Francisco Bay Area metal trades, mostly in steel fabrication and shipyard repair work.

Though Kevin and his predicament are rarely discussed, he cannot be far from the minds of local shipyard workers. The possibility of falling from skilled craftsman to "homeless bum" has become perhaps our greatest nightmare. We see the world we know, the one in which we play such a vital role and from which we draw our sustenance, identity, and security, disintegrating before our eyes. Few of us will actually plunge into homelessness, but all are confronting the demise of our trades, the virtual elimination of our occupations, as a result of the reconfiguration of global economic and political forces far beyond our control. The process is not new, but the endgame is at hand. It has been going on for at least two decades in a steady and relentless fashion. In the last five years it has become clear to everyone that the decline is permanent. The condition of the last major unionized shipyard in the area is a metaphor for a dying industry.

The physical plant itself is obsolete and worn out, located in a decaying industrial area. Weeds push their way up around portions of the grounds, which are strewn with discarded metal and assorted industrial debris. The walls of both of the drydocks are patched with hundreds of large and small "doubler plates" to maintain water tightness. All kinds of minor repairs and constant vigilance are required just to keep them functioning. From high atop the wingwalls of the drydock one can see the rotting timbers of the piers of an adjacent shipyard that closed down fifteen years ago; half a mile beyond lie the now idle concrete piers of still another yard that went bankrupt in 1996. Four years earlier one of the biggest yards on the Bay closed down, sold its state-of-the-art floating drydock to a Singapore firm, and permanently laid off almost five hundred workers. Many of the cranes and some of the heavy equipment, in this, the last of the large yards, no longer

work. On big jobs, the tool room is often forced to issue grinders, drills, and other hand tools that are thirty years old. The small administration building out on the pier, a beautiful turn-of-the-century brick structure, is closed and roped off, its useful life terminated by the Loma Prieta earthquake in 1989. The much larger buildings on the perimeter of the yard, closest to downtown, which used to house corporate personnel, sales representatives, estimating departments, and engineering and drafting offices, have been closed for more than a decade. Administrative and clerical work today is done in temporary trailers, the kind found at many construction sites, which are located just inside the main gate and line the pier leading to the wharfs and drydocks.

The dilapidated condition of the yard is matched by the precarious employment opportunities accorded the workers. Although hourly wages (at least for journeymen) are still high compared to much blue collar and service work, steady employment is virtually impossible to attain. A cycle of "feast and famine" prevails. Short-term jobs, lasting at most several months and requiring hundreds of workers, are run at breakneck speed, often seven days a week, in twelve-and-a-half-hour shifts, day and night, only to be followed by periods of enforced idleness, also lasting months at a time. Although, according to the contract, overtime is not mandatory, rare is the worker who feels he can turn down any extra hours offered at premium pay; all are driven by the understanding that they had better get it while they can. Although this sprawling shipyard has been here for over 115 years, every job could be its last one, and its appearance conveys that; its future is precarious. Sitting on the edge of the Bay in the best micro-climate in the city, the land seems ripe for sale to a developer to put in an upscale marina along with some condos, restaurants, and retail shops, as has been occurring for years further to the north all along the waterfront. Most of the workers in the yard believe it is only a matter of time before the city's oldest industrial establishment will be closed for good, making their chances for earning a livelihood in the metal trades in the Bay Area almost nil.

How are we to explain what can only be seen as the degradation of work, the loss of our status, security, and indeed of our very place in the modern American economic landscape? In his seminal work, *Labor and Monopoly Capital*, published in 1974, Harry Braverman put forward the bold proposition that "With the development of the capitalist mode of production, the very concept of skill becomes degraded along with the *degradation of labor*."<sup>1</sup> Yet, all the evidence I have been able to gather, as both a participant and an observer for the last twenty-five years, indicates that the labor process in San Francisco shipyards has been relatively impervious to change. The technological requirements of shipyard repair work have varied very little, and the core of workers plying their trades have been journeymen for at least a decade, many of them for three and four times that long. We remain very much the equal of our counterparts of the past few generations in terms of

technical competence, and we have even learned to work with some new materials and processes. But our basic skills, tools, and relative autonomy with regard to the labor process have remained virtually the same.<sup>2</sup>

Given our retention of skill, perhaps Michael Piore and Charles Sabel are the more relevant theorists. They assert that the *flexible specialization* required in craft production inevitably leads to a "community of equals" who participate in a production environment of "industrial democracy."<sup>3</sup> But I saw little "yeoman democracy" in my years in the shipyards. True, when the unions were strong we did have considerable rights and protections, but now that the industry is in decline we have lost most of those powers and we face a more authoritarian regime. Like Braverman, Piore and Sabel have no way of understanding the independent variation of the labor process and the politics of production. They conflate the labor process with the regulation of that process. As Michael Burawoy points out, these two aspects can be separated analytically, and as I will document, they can and do vary independently in the real world. The labor process involves the actual operations carried out by the workers, in Burawoy's words, the "coordinated set of activities involved in the transformation of raw materials into useful products."<sup>4</sup> The control of that process is achieved through what Burawoy calls the "production regime," the "*political apparatuses of production*," understood as the institutions that regulate and shape struggles in the workplace.<sup>5</sup> These include management-union relations, the distribution of workers into places, and indeed the very constitution of individuals as workers.

The production regime of two decades ago was a class compromise based upon the employer's ability and willingness to grant us substantial yet limited material concessions, both because of the employer's dominant position in world markets and because of our crucial and irreplaceable role in the production process, combined with our organizational strength in exclusive craft unions and our consequent ability to impose the closed shop. The result was a regime I call "flexible hegemony." The flexible craft labor process, with its wide latitude of worker autonomy, was necessary to perform the actual production tasks in the uncertain world of ship repair, steel fabrication, and construction work. The hegemonic regime was the result of compromise between two powerful and organized class forces. The unions were taken in as junior partners with some influence over the evaluation and placement of workers, and both management and labor agreed to an elaborate system of mutual rights and obligations. Today, under the impact of macro, global economic and political forces, which compel our bosses (those who have not taken their capital elsewhere) to compete internationally for every job, and which have resulted in the virtual decimation of our unions, management has chosen to abrogate the class compromise and impose a much more oppressive regime of increasing control, one that I call "flexible discipline." The flexible craft labor system necessarily remains unchanged, but the regime is now characterized by the reassertion of man-

agerial prerogatives, unilateral imposition of contracts, redistribution of skills, control over the evaluation and placement of workers, and the regulation of individual workers through disciplinary practices aimed at the body.

Neither Braverman nor Piore and Sabel are very helpful in understanding these changes in the production regime. Braverman assumes that workers are more or less immune from degradation as long as they retain their skills. His analysis and focus on the labor process at the point of production largely disregard wider economic, social, and political forces, or assume that the monopoly corporations he was studying had reached the point where they could control and dominate these outside forces. Piore and Sabel err in the same direction. They fail to specify the kind of "macro-regulatory requirements" that would be necessary, in conjunction with craft production, to promote a more democratic workplace.<sup>6</sup> Neither seems to recognize the profound effect that competition in the product and labor markets has not only upon employment opportunities, but also upon the industrial relations that workers and employers agree upon in formal contracts, relations which they negotiate and renegotiate informally on the shop floor every minute of the working day.<sup>7</sup>

This chapter will first present evidence for the continuity in skill levels in shipyard repair work in San Francisco over the last quarter of a century. The second section will describe and analyze the production regime under conditions of flexible hegemony. The third section will analyze and document the change to the new production regime, flexible discipline. The fourth section seeks to explain these changes in terms of global forces. The concluding section turns to the responses of the workers affected by these changes.

#### A MOST RESILIENT LABOR PROCESS

Before writing *Labor and Monopoly Capitalism*, Harry Braverman was for many years a shipyard worker in a four-year apprenticed craft. He viewed the naval shipyard as "probably the most complete product of two centuries of industrial revolution," a place where the "interlocking processes" of both ancient and modern crafts were carried on cooperatively in close proximity. Although his trade, coppersmithing, suffered a "rapid decline with the substitution of new processes and materials, . . . the trade of working copper provided a foundation in the elements of a number of other crafts."<sup>8</sup> He was able to utilize those related skills and find craft employment in railroad repair, sheet metal work, and heavy steel fabrications shops. Thus, as late as the 1940s and 1950s, Braverman presents evidence for the persistence in United States industry of skilled craft workers, who, although not as autonomous as their pre-industrial revolution ancestors, nevertheless more

closely resembled them than the degraded homogeneous labor power the scientific managers sought to produce. These workers played an indispensable role in the production process and therefore were able to extract rewards from their employers to ensure their cooperation and continuing loyalty.

The inherent power, control, and autonomy embedded in the skilled craftsperson is, according to Braverman, incompatible with the laws of the accumulation of capital. Therefore, via the vehicle of scientific management, epitomized by Taylorism, capital consciously and systematically collects, concentrates, and appropriates for its exclusive use all of the knowledge embedded in the craft skill and then uses "*this monopoly over knowledge to control each step of the labor process and its mode of execution.*"<sup>9</sup>

For Braverman, the history of capitalism, especially in its monopoly phase, is the successful unfolding of this "law," the wresting away of these craft skills from the workers by the capitalist class. In that process, skill, work, and human labor are all degraded, the latter being cheapened and reduced to "the level of general and undifferentiated labor power,"<sup>10</sup> capable only of carrying out the mindless, simple, detailed tasks dictated by capital.

Braverman failed to recognize the limited ability of even the capitalist labor process to deskill many jobs. For some work the limits are virtually technologically determined—the very work process itself is not amenable to rationalization under the present state of technical knowledge at a cost that would allow the firm to increase its accumulation of capital. A great deal of ship repair work falls into this category. Unlike new shipbuilding, which, with the development of modular construction techniques, was greatly simplified and rationalized during World War II, ship repair continues to require flexible work organization and skilled people of various trades. Systematic surveillance, a prerequisite to deskilling, is almost impossible for management to achieve on work scattered about in the honeycombed bowels of a ship. Even if feasible, the policing costs would be prohibitive, and policing would surely trigger resistance from the workers. Not only must the workers be skilled in their particular crafts—pipefitter, electrician, boiler-maker, machinist, shipfitter, and so on—but they must be able to carry out their work in confined spaces with a minimum of disruption or damage to existing structures. Although routine tasks requiring minimal skill are frequently performed, each job presents unique problems. All require new measurements, different kinds of materials, and different methods of access. Plans change constantly as the work itself often inadvertently disrupts previously agreed-upon designs. Indeed, fights over "change orders," which alter the original contract between the ship owner (or his agent) and the shipyard doing the work, occur constantly, as the very process of repair often reveals new damage previously hidden from view. The work contains

too much uncertainty to allow management even to consider attempting to dictate completely the details of the work process. Obviously this kind of work is not amenable to the essential principles of Taylorism, the vital element of which is, according to Braverman, "the systematic pre-planning and pre-calculation of all elements of the labor process, which now no longer exists as a process in the imagination of the worker but only as a process in the imagination of a special management staff."<sup>11</sup>

The technological imperatives of ship repair work change very slowly over time. The work is virtually impervious to the kind of deskilling that Braverman found in other industrial branches of the same trades, because it is highly resistant to the introduction of machinery. As in the past, shipyard repair work is carried out almost exclusively with hand tools under the control of the individual worker. Each time I hire in for a new job, I am issued a journeyman shipfitter's toolbox. It contains a twenty-five-foot tape measure, a combination square, a chalk line, a center punch, a small (two-pound) ball pein hammer, an angle divider, a chisel, and assorted screwdrivers, pliers, and adjustable wrenches. I also check out a welding hood, burning goggles, a stinger (the tool that holds the electrode in electric arc welding), and a burning torch (in case I need to work without the assistance of a combination welder). At least rudimentary welding and cutting skills are a requirement of my craft, and many experienced fitters are excellent welders. Like most other shipfitters, I bring my own "beater," or heavy hammer, a five-pounder with a fourteen-inch hickory handle, suitable for most fit-up work. These are the basic "tools of the trade." No power tools are issued, although almost daily I will be called upon to use one or more small hand-held grinders, impact wrenches, or hydraulic jacks, the latter to move structural steel pieces too stubborn to submit to my "beater." As in the past, the use of wedges, "dogs" (steel pieces cut with a notch and used in conjunction with wedges to raise or lower adjacent steel plates), saddles (similar to dogs, but usually larger), and other devices usually creatively fashioned on the spot to conform to the unique situation encountered, forms the basic techniques applied by the shipfitter.

As persistent as the tools are the skills shipyard workers are required to possess. Journeymen shipfitters, pipefitters, boilermakers, and machinists are expected to read blueprints, and when they do not exist, which is often, make their own sketches of the work to be done. They are expected to do layout—that is the process of transferring the information contained in the prints and sketches onto the actual steel. They are required to make templates out of wood or cardboard, so that pieces of steel or pipe cut to exact specifications can be fabricated by others in the shop. Most important, they must know the art, science, and techniques of cutting, fitting, and fusing metal. Shipfitters must know how to fit up the heavy primary structural components of a ship's hull and shell plate, as well as the lighter, secondary

structural pieces comprising decks, bulkheads, and foundations; and all craftsmen must be able to accomplish their tasks to critical tolerances, often to variations of no more than one-sixteenth of an inch.

In addition to the necessary skills of the craft, the shipyard repair worker of today, just as in the past, is often required to work in exceedingly cramped, remote, almost inaccessible, dark, damp, hazardous, and extremely smoky spaces. It is not unusual to have to string hundreds of feet of electrical line just to provide temporary lights and power for hand-held tools. All workers must (or should) wear and use a variety of safety clothing and devices. Hard-hats and steel-toed shoes, as well as burn-resistant clothing (often supplemented with heavy leather welding jackets), are necessary for elementary bodily protection. Safety glasses, earplugs, and respirators are also mandatory. The cutting, fitting, and welding of steel, especially in the marine environment, and in confined spaces, can be exceedingly noisy and produces toxic fumes. Workers are forced to rely upon individual protective devices to preserve their health because management rarely installs engineering solutions sufficient to eliminate the hazards. Although absolutely necessary, many of these devices make communication among workers much more difficult (hearing and speaking are both restricted) and require an increase of energy and effort; for example, breathing through a respirator is more difficult than without.<sup>12</sup>

It is evident that the requisite skills persist largely unaltered and undiminished. A changing labor process is not the place to look for an explanation of the degradation of conditions for Bay Area metal trades workers. Rather, we must turn to the transformation of the way the labor process is regulated, what I call the production regime.

#### FLEXIBLE HEGEMONY

The production regime which I have labeled "flexible hegemony" was in effect for more than forty years, from the beginning of World War II through the early 1980s. It was predicated upon United States economic superiority in the world market and the continuation of the Cold War, which together provided steady employment for thousands of Bay Area men and a handful of women in steel fabrication, construction, and ship repair. Even in the late 1970s, being a mechanic, working out of Boilermakers Local #6 in San Francisco, was something to be proud of. Fathers still brought willing sons into the trades. I had joined the ranks of skilled craftsmen who were building the gigantic machinery necessary to strip-mine the West, develop the Alaska oil and gas fields, construct and maintain the infrastructure of the region, and repair and recondition the Navy's Pacific fleet. It only seemed reasonable that our working hard and playing by the rules should bring their just material rewards; and for a while they did.

Achieving journeyman status in the union and receiving one's "book" virtually assured one a secure job (or a continuous series of temporary jobs), with relatively high wages and benefits, including contributions to a pension plan and full medical, dental, and eye care coverage for the worker's entire family. Work in a closed union shop, shipyard, or construction site conferred the accrual of certain rights and protections (seniority and grievance procedures), considered virtual birthrights, for the industrial craftsman, who was playing a vital and indispensable role in keeping the United States the dominant industrial and military power in the post-World War II era.

The class compromise embodied in flexible hegemony had three major characteristics: 1) a relatively nonconfrontational partnership between management and ten strong craft unions organized into a Metal Trades Council, which had influence upon job descriptions and distribution, and which, after receiving input from their rank-and-file memberships, negotiated coastwide contracts, whose terms were mostly honored in practice; 2) a union-sanctioned traditional craft labor system, with a modified apprenticeship program, which conferred honor, dignity, and respect upon the craftsman; and 3) an elaborate series of mutual rights and obligations in which management agreed not to interfere with the worker's private life and to provide a relatively safe working environment and appropriate sanitary and eating facilities at the worksite, in return for hard work and high productivity from skilled craftsmen.

#### *Strong Unions—Negotiated Contracts*

The unions' strength was based upon their large numbers and upon government intervention during the war, which granted them the closed shop and allowed them to monopolize access to the necessary skills of the metal trades. As late as the mid-1970s, five Boilermakers locals had master agreements with three different branches of the industry: field construction, steel fabrication shops, and shipyards. These locals had approximately ten thousand members and, although they were by far the largest of the metal trades unions, accounted for only about 65 percent of the workers employed in the industry. They worked in at least nine Bay Area shipyards and twenty-five fabricating shops, some of substantial size and importance to the regional economy. The largest of the employers were long-established, well-known names in American industry: American Bridge (United States Steel), Kaiser Steel, Todd Shipyards, Bethlehem Steel, FMC Corporation, Paceco (Freuehauf Corporation), while others were substantial regional and local businesses.<sup>13</sup>

The evolution of the union's exclusive bargaining rights can be traced to the beginning of World War II and the federal government's interest in the production of war materials without labor disputes. In 1941, just prior to the extraordinary expansion of the West Coast shipbuilding industry, the Metal Trades Council, led by the Boilermakers Union, signed a Master

Agreement, sanctioned by the Navy, the Maritime Commission, and the War Production Board, establishing the closed shop in all shipyards from just north of Los Angeles to the Canadian border. The contracts they negotiated made West Coast metal trades workers the highest paid in the world.<sup>14</sup> After the war, union-controlled hiring halls, which monopolized access to the necessary skills and regulated the external labor markets, helped ensure relatively high wages and increased benefits, internal labor markets strongly influenced by seniority, and the existence of an "internal state," applying rules of "formal industrial jurisprudence," which guaranteed us industrial conditions, including citizen rights on the job, equal to any enjoyed in the world under capitalist production relations.<sup>15</sup>

The ability to continue to gain such favorable contracts, and for the most part to enforce them, was due in no small part to the active participation in union affairs by substantial groups of rank-and-file workers. We regularly attended meetings, pushed for democratic reforms such as the election of shop stewards, demanded that the union take a more active role on the shop floor, held the officers publicly accountable on fiscal affairs, and generally attempted to keep the leadership responsive to the needs of the ordinary worker. Although none of the traditional craft unions making up the Metal Trades Council was known for its democratic procedures, the membership has always had the right to ratify all contracts and elect local leadership. For months before any contract was negotiated, hundreds of ordinary workers would attend boilermaker meetings insisting that our demands be presented in contract negotiations.

Despite the unions' ability to negotiate decent contracts, management and control of all "business matters" resided with ownership (or their managers in the larger concerns), including the most crucial of all business decisions, whether to keep their capital invested in the metal trades industry at all. Neither the union nor the workers were ever consulted concerning questions of capital investment, market or product selection, the acceptable rate of return on the money invested, and, finally, and most crucially, alternative investment opportunities.

#### *Union-Sanctioned Craft Labor System*

During the post-World War II boom years, and well into the early 1980s, the Bay Area metal trades industry closely resembled Piore and Sabel's ideal-typical model of craft production, the shop-floor organizational foundation for their notion of flexible specialization. Our wages were tied to our skill, and not to the job we performed. Only two levels of skill were recognized, journeymen or mechanics, and apprentices or trainees, and the classification of individual workers was *negotiated* between management and the unions, both of whom were required to follow contractual rules. Journeymen were presumed to possess comparable skills and were paid a single rate, while learners received a sliding scale, eventually reaching mechanic's level as

their skills accumulated over time. Shop floor supervisors, at least up to the foreman level, were invariably drawn from the ranks of craftsmen. They retained their membership in the union and often floated back and forth between lower management and mechanic. The fact that lower-level supervisors tended to be our union brothers, who might be back working with the tools on the next job, tended to keep relations with many immediate supervisors fairly friendly and easy-going, although both the shops and the yards had their full share of authoritarian foremen.

Ten separate metal trades craft unions controlled access to all jobs within their clearly defined areas of jurisdiction. A member in good standing was virtually assured of full-time work year-round. Out-of-work members would register with their respective halls and would be called upon in order as new jobs became available. Showing up at a job site with a dispatch slip from your union practically guaranteed you the job. In the not-so-distant past, a time many of the current workers can remember, a phone call to the union hall following a layoff at one job could often land you a new job the following day. Many workers, wanting a break of a week or two, a breather during which they could do some fishing, catch up on home repairs, or just kick back and recover from the hard physical labor, while collecting a week or two of unemployment insurance, would avoid reporting immediately to the union's out-of-work list because they would be technically and legally ineligible for unemployment benefits if they were dispatched to another job and turned it down.

Most important, craft production implies at least the semblance of a community. Because "construction is always based upon a unique design (or the unique adaptation to local circumstances of a standard design), the organization of the work has to be defined each time *de novo*; with their technical knowledge, the workers are integral to the drawing up of the plan, just as they are essential for solving the inevitable problems that arise in its execution."<sup>16</sup> Piore and Sabel assert that this makes collaboration among management, workers, and the union a necessity, and in the flush days, under the discipline of a relatively tight labor market, this was true to a limited extent. Because of our vital role in the production process, workers in the Bay Area metal trades industry achieved a significant influence over the detailed daily decisions concerning the labor process. Cooperation and collaboration were limited to labor process decisions and always took place within a clearly defined hierarchical order. Management generally retained its prerogatives pertaining to shop floor production decisions, not always with favorable results for the company.

#### *Rights and Obligations*

While control over production was ceded to management, they in turn were contractually obligated to maintain certain standards in their workplaces

and to accord their workers a certain degree of respect and care. Until the early 1990s management made no attempts to monitor or regulate the bodies or the private lives of their employees. Indeed, the contract even specifically outlawed any "Doctor's physical examination [or] age limit, except as required by law," as a condition of employment.<sup>17</sup> Article 16 of the contract required the employer to "exert every reasonable effort to provide and maintain safe working conditions," while complying with all government laws and regulations. Specifically spelled out were obligations on maintaining safe "staging, walks, ladders, gangplanks and safety appliances," as well as guards for eye protection around welding operations and the provision of "prompt ambulance service and first aid" for injured employees on all shifts. Several subsections of Article 16 were devoted to requirements regarding the proper procedures for ensuring the ventilation of "noxious or poisonous gases" from properly lit confined spaces, for frequent checks on people working in confined spaces, and for blood and urine tests, if required by the Occupational Safety and Health Administration (OSHA), to monitor for potentially dangerous substances. Finally the provision of "special protective devices and equipment," supplied at the employer's expense, where needed, was mandated.<sup>18</sup>

Respect for our creature comforts was also contractually required. Management was charged to provide clean, "properly heated and ventilated" toilets and washrooms, lunch areas "separate from toilet facilities," drinking water, and secure personal lockers.<sup>19</sup> Employers were required to pay double time for "dirty work," which was broadly defined, and to provide adequate time and facilities to clean and change oil- or water-soaked clothes.<sup>20</sup> When compliance was not forthcoming, grievances were often filed, and occasionally we took direct action. When we failed to receive "dirty pay" while cutting ten thousand feet of pipe out of the bilges of the aircraft carrier *Coral Sea*, several workers brought in and distributed copies of the relevant part of the contract, and after lunch hundreds of us refused to return to the job.<sup>21</sup>

While not all contractual obligations were honored in practice, most of them were. This was especially true all through the mid-1970s and early 1980s, when hundreds of Bay Area rank-and-file workers took an active role in their union affairs, insisting that their shop stewards demand that the bosses comply with their responsibilities and meet their contractual obligations.

#### FLEXIBLE DISCIPLINE

Rather than becoming the foundation for the development of an industrial yeoman democracy for the production regime of the twenty-first century, the craft production regime of flexible hegemony, even with the active par-



ticipation of hundreds of rank-and-file workers, has been transformed under the pressure of macro global economic and political forces into a new and far more oppressive production regime of "flexible discipline." The class compromise which conferred upon both workers and managers mutual rights and obligations, which granted to unions influence over job definition and distribution, and which honored and respected the "knowledgeable" craft work embedded in the body and mind of the journeyman has been abrogated.<sup>22</sup> Management, in the face of competitive pressures, especially from several new small local nonunion yards, which bid competitively on all available work, and unable to rationalize and modernize the labor process, has opted for an authoritarian strategy.

While the production regime of flexible hegemony endured for many decades, the present regime of flexible discipline represents an unstable transitional stage. It is characterized by conflict between an aggressive employer strategy seeking to impose its will against a relatively enfeebled, mostly ineffective, and disorganized worker resistance—but a resistance nevertheless. In many shops and shipyards the workers still retain their unions, the ability to negotiate contracts, and a measure of citizen rights on the job, gained from previous struggles. If the unions can reorganize their strength, they may be able to achieve a more favorable form of class compromise than is the case today. Should the employers prevail, they may well be able to break the unions completely and establish a truly despotic production regime.

The present transitional regime of flexible discipline has three major characteristics: 1) a confrontational relationship between an aggressive management and ten separate and weak craft unions, with virtually no rank-and-file participation, resulting in either the elimination of the unions entirely or an imposed contract requiring increasingly oppressive conditions; 2) the replacement of the traditional craft labor system with a multi-level stratification system, which not only introduces craft-less "utility workers," but stratifies the category of journeyman via management-dominated evaluation schemes measuring both skill and *attitude*; and 3) the imposition of a regime of discipline that subjects workers to mandatory drug tests, thus regulating workers' bodies and activities both on and off the job, and, through speed-up, cost-cutting, and the elimination of many reciprocal rights and obligations, results in deteriorating safety and sanitary conditions for workers who cannot be deskilled.

#### *Aggressive Management, Weak Unions*

Capital flight and its attendant job losses have decimated the workers' organizations, the once powerful metal trades unions. By the spring of 1997, the last remaining shop/shipyard local of the Boilermakers Union, my local, #6, had fewer than nine hundred workers on its rolls, a drop of more than 90

percent since the late 1970s. Even with this reduced number, during many months of the year 30 to 40 percent of the members will be out of work.<sup>23</sup> As the union's power and membership have diminished, so too has any semblance of rank-and-file participation in the local's affairs. In the mid-1980s all significant local, rank-and-file initiatives were rebuffed as unconstitutional by the union's international leadership headquartered in Kansas City, which, because of the constant turmoil, placed the local in receivership. Although local leadership was eventually restored, the mild insurgency had been quelled. In recent years Boilermakers Local #6 has been unable to get a quorum for its regular monthly meetings, even when elections of officers or contract negotiations are the business of the day.<sup>24</sup>

Taking advantage of the weakened state of the unions, which are no longer able to provide steady work, and the increasing gulf between the average worker and even the lowest officers of the union (the shop stewards, who are increasingly reluctant to fight for workers' rights on the shop floor) the management of San Francisco Drydock was able to force through a contract in 1996 which the rank-and-file clearly recognized as against our interests. Despite the endorsement of the Metal Trades Council and the leadership of all participating unions, the workers originally rejected the proposed contract by 85 percent. On the same day that the election results were announced, the Boilermakers shop steward, along with management, called a meeting to begin implementing the provisions of the very contract that we had just rejected. About a month later, with at least the tacit consent of the various local union officers, management rammed through the identical contract by the slimmest of margins, while more than 90 percent of us were on lay-off.<sup>25</sup>

The terms of this new four-year contract, "ratified" in July 1996 between the management of the last large Bay Area unionized shipyard and the unions of the Metal Trades Council, formalize the transformation of power relations in the yard.<sup>26</sup> Although presented as an "industry recovery labor agreement" designed to ensure the survival of "profitable union shipyards," paying "family wages and benefits," and couched in the language of cooperation and mutuality, the contract is a manifestation of management's strategic decision to respond to the global challenge by substituting discipline for class compromise.<sup>27</sup> In traditional terms the agreement is not even a binding contract. Article 2.3 states, "The Parties Agree to amend the content of the contract by mutual agreement when bidding against non-union shipyards."<sup>28</sup> Since there are virtually no other union shipyards in the area, the contract is subject to renegotiation at any time.

#### *The Destruction of the Craft Labor System*

The traditional craft labor system with its two levels of skill, journeyman and apprentice, has been obliterated and replaced with a scheme that stratifies



and divides workers along several lines. Most egregious, and breaking with more than one hundred years of tradition, the contract provides for an entirely new tier of nonapprenticed labor, the non-craft-specific "utility worker," whose starting wages closely approach those now being paid shipyard workers in South Korea.<sup>29</sup> Management is now entitled to employ up to 30 percent of the workforce at below journeyman scale. Although "utility worker" is a new classification, the contract provides no specifics on, or limitations to, their role in production. These workers, remunerated at slightly more than one-half the journeyman rate, are being used as the spearhead of a more generalized trend toward "cross-crafting," which journeymen are expected to comply with as well. As the contract puts it, "Jurisdiction and past practices shall be relaxed to allow for all skills and abilities of all employees to be utilized to perform the available work safely in the most efficient manner."<sup>30</sup> In addition, management is allowed to designate up to 10 percent of the workforce as "key employees," who "may be retained and recalled out of seniority."<sup>31</sup>

While the traditional partition between journeymen and apprentices is formally preserved, the mechanic's classification has been divided into four separate levels with different rates of pay and status for each. Although the majority of the men will be retained as mechanics, others will be demoted and a minority will be rewarded with higher wages and more secure employment. The methods used to reconfigure the traditionally unitary journeyman classification have left no doubt in the minds of the majority of workers that their employers regard them with contempt. Mechanics' status, despite union certification, years of experience in the trade, and even seniority rights, is no longer taken for granted, but is subject to continuous reexamination. Journeymen with up to forty years of experience are now subject to annual reviews by management-dominated craft-evaluation boards. Invoking the discourse of both scientific management and "human relations," the company asserts that the evaluation program's purpose is a cooperative labor-management "system," which benefits both "the organization" and "the employee" by acknowledging accomplishments, improving communication, raising productivity, and improving morale.<sup>32</sup>

The evaluation process itself is framed in scientific terms, and purports to normalize the workers not only according to our craft skills, but also to the quality and quantity of our work, our attendance and dependability, our compliance with safety regulations, and our cooperation and teamwork. Each worker is rated on a standard ten-point system (from unsatisfactory to exceptional) for our ability in each component of our craft, as well as our attitude. Bonus points are given to those workers whose "versatility" allows them to qualify as a journeyman in more than one craft. A worker must obtain an overall rating of at least 5.0 in order to retain his journeyman's status and rate of pay. Those workers, previously classified as mechanics,

who fail to achieve that minimum score, are "grandfathered" in as journeymen and have their wages frozen at the level of the last contract. In some crafts, up to 30 percent of the workers may be designated above journeyman level, as "craftsman," and 5 percent as "master craftsman," the highest rating. Over the course of the four-year contract, the wage gap between the ordinary mechanic and the new higher classifications grows each year, while those "grandfathered" in will fall even further behind.<sup>33</sup>

Most rank-and-file workers see the evaluation process as just one more way to devalue them. They see the evaluation boards as rigged in management's favor, consisting, as they do, of two supervisors (the general foreman and a leadman in their craft) and one "peer" (considered by most to be a toady). The evaluation process began immediately after the ratification of the contract, but to my knowledge members of the boards never went out to the ships and actually observed the men at work. A worker's evaluation was a reflection of his foreman's opinion of his skill, ability, and attitude. The boards served merely as rubber stamps, a means of conferring a degree of legitimacy on a management decision. They invariably ratified the supervisor's judgment and assigned it a "scientific" designation: a series of numbers on an elaborate, official looking computer-generated form, calculated to intimidate and bamboozle shipyard workers unaccustomed to having their skills and attitudes translated into numerical values.

Many of the evaluations had little to do with the worker's actual skill and ability. I use myself as an example. Although I have been a journeyman welder for more than twenty-five years, for the last four years I have hired in as a journeyman shipfitter, and was evaluated in that craft. Five percent of the shipfitter's skill assessment is based upon his ability to burn and tack (make small welds), essentially the tasks of a combination welder. My score in that category was 5.0, the minimum needed to be accorded journeyman status. But I also received 5.0 for all sixteen categories, for my skill, ability, and attitude. Clearly no real assessment was made of my work. Each worker was given his evaluation in a private meeting with the supervising foreman of his department. Part of management's plan was to break down what small amount of solidarity remained among journeymen and to fragment and individualize each worker's industrial relations. When a large number of workers refused to allow the union shop steward to be present at those meetings, it appeared the strategy was working.

But the process has also produced countertendencies. Even before the evaluations were completed, the men resented this extraordinary break with tradition and began slowing down on the job. After being evaluated, men who felt they deserved higher ratings, openly began to say, "If I'm only a 5.6, then I will work like a 5.6." And they did. Although it has existed under the surface for a very long time, social pressures to "bear a manly attitude" both toward the boss and toward each other reemerged with the imposition of

the new contract.<sup>34</sup> I myself was brought to heel under this discipline. After lunch one day, when I had not had a very productive morning and was concerned that I would not finish my task for the day, I began walking, not quickly, but certainly faster than the regular and socially sanctioned "shipyard shuffle," back to the job. Before I got a few feet ahead of my mates, a chorus of boos and criticisms rang out: "Hey Professor, trying to get on steady?" "Hey 'Kissy-Kissy,' what's the rush?" To maintain my status, I immediately dropped back into step with the others and, upon reaching the drydock, went out of my way to strike up two or three brief conversations with fellow workers. I also made an unnecessary stop at the tool room for a pair of earplugs even though I had several pairs in my pocket. I was thus the last man to get back on the ship that afternoon and I was able to make a show of returning later than several of my friends who were already on the job.

Workers even mounted a degree of organized resistance, exercising their still-existing industrial citizen rights (which do not exist in the nonunion yards) and forcing the union and management to abide by the contract. At least 10 percent of the workers appealed their evaluations. Power on the appeals board was more evenly distributed, as management got only one seat, with a local union representative and a peer from another craft holding the other two. Even when appeals were won, however, and several were, retroactive pay was not granted.

Despite token resistance, management's transparent goals in developing the new labor scheme have mostly been achieved. They have emulated the strategy of the nonunion yards by securing a core group of highly skilled and reliable workers in all crafts, including many with cross-craft skills, are compensating them above journeyman scale, and are allowing them to supervise craft-less, low wage utility workers, thus reducing the required number of mechanics, and thereby bringing down overall labor costs. Previously employed, highly skilled journeymen, along with additional utility workers, now form a peripheral reserve army of labor to be employed intermittently on large jobs.

#### *Regulating Bodies and Activities*

But whether in the core or on the periphery of the workforce, all workers when they hire in are required to submit to a demeaning mandatory drug test. The stop at the medical office for the test is an ironic twist because, given the erratic nature of employment, at least three-quarters of the workers lack medical coverage, having failed to get the necessary hours in the appropriate quarter to qualify under an ever more restrictive health plan. The company does however have the resources for piss tests, at least for nonmanagement personnel. Three years ago management insisted on a contract requiring yearly drug tests for all unionized workers. The new contract goes much further, requiring "pre-hire, for cause and unannounced/random" tests. It is

not unusual for new hires, especially the low-wage utility workers, to disappear after about a week on the job, never to be seen again. Workers with seniority who test positive are allowed to sign a "last chance agreement" and are enrolled in a drug rehabilitation program; new hires are terminated on the spot the minute their "dirty" test comes back from the lab.<sup>35</sup>

The surveillance of our bodies is conducted with great scientific rigor, resulting in enhanced control at the workplace through the effective monitoring of our private, off-site activities. The justifying discourse is safety. The company asserts that its commitment to a "safe, healthy and productive work place" makes drug-testing imperative. Substance abuse by any worker endangers everyone, including the public and the company.<sup>36</sup> Even the unions ignore much greater threats to our safety, the unsafe conditions that management fosters by its business practices. Virtually every job is a rush job, and the company declines to spend the necessary money or time to prevent hazards or engineer solutions to ones that exist. Thus, despite a strict drug policy for the last three years (recently strengthened again), the accident rate on some of the most recent jobs has been alarming. In the winter of 1996, a ship in the yard spilled a large quantity of oil into the bay. Rumors began to circulate among the workers that the costs would put the yard out of business. The General Manager told all the yard workers that not only was the company insured in case they were found liable, but that he would prove "us" innocent of any blame. Either way he said, the spill posed no economic threat to the company. The real threat, he said, was the unacceptably high accident rate, which could drive the company out of business. The onus was immediately put back on the men. Either we must learn how to work more safely or our jobs would be in jeopardy. Conditions were so bad that somebody blew the whistle, and the emasculated safety-regulation agency, OSHA, wrote the company a letter alleging "inadequate ventilation and lighting" in "enclosed and confined spaces," as well as "fire protection systems on the piers and drydock" with "frozen valves and broken gauges."<sup>37</sup> Dozens of equally serious hazards, including inadequate staging, man-lifts with broken controls, obsolete air-powered and electric hand tools—often lacking safety guards—and broken ladders, were never mentioned. Although the company denied the existence of any hazards or violations, every worker in the yard knows that the place is loaded with accidents waiting to happen, and the most conscientious exercise extreme caution to make sure, not always successfully, that they do not happen to them.<sup>38</sup>

Management's response is to run weekly safety meetings which constantly emphasize individual responsibility in a "naturally" hazardous industry. The men sit around these mandatory meetings paying little attention, socializing with friends, drinking coffee, or just spacing out, glad for a break before the start of the day's work. Virtually all see the meetings as useless, still another way for the company to cover its ass, while insisting that we do

the impossible: finish speeded-up jobs with quality workmanship under hazardous conditions without getting hurt.

Elementary standards of sanitary decency previously provided are now denied. The locker rooms are filthy, their roofs leak, and their heaters do not work. Half of the large industrial communal sinks in the washrooms are broken, and there are no more than two or three functioning showers in the whole plant. Many of the toilets do not even have doors, making privacy, to say nothing of dignity, difficult to maintain. Many workers, myself included, train themselves to avoid, if at all possible, the need to use these facilities. On graveyard shift, especially on weekends, there is a good chance that toilet paper, soap, and paper towels will all run out, as management tries to save the money it costs to bring in a maintenance worker on overtime. There is no cafeteria or food service, only a "roach coach," which arrives in the morning and at lunch (at least on day shift), a few soda and snack machines, and a smattering of tables, the most concentrated group in front of the main tool room, outdoors and exposed to the elements.

The mutual rights and obligations of an earlier era are all but gone, mostly replaced by greater demands and more restrictions on the workers. The latest contract makes almost no demands upon management concerning safety, stating only that "Employees and Management share responsibility for the prevention of injuries and illnesses," although the latter are called upon to "eliminate hazardous conditions and practices." Compensation for "dirty work" has all but been eliminated, as it is restricted to work considered "exceptionally dirty" by the company. The theme of this contract is greater control over our bodies—through disciplinary practices and self-discipline. Several paragraphs oblige us to correct the productivity problems arising from the "historical employee abuse of time" at shift changes and lunch breaks, insisting that we remain on the job from whistle to whistle. Despite our retention of skill and ability, management increasingly treats us as degraded labor.

The extraordinary differences between the authoritarian production regime of today and the regime of flexible hegemony that existed only a decade or so ago can only be fully explained if we look far beyond the local worksite.

#### INTERNATIONAL COMPETITION—THE END OF THE COLD WAR

Global forces, that is macro-economic and political developments of national and international significance, have always had a profound influence upon the fortunes of the Bay Area metal trades industry and its workers.

The local iron industry got its start, in the middle of the nineteenth century, supplying tools and machinery, first for the California Gold Rush and subsequently for the fabulously rich, deep underground mining of silver in

Nevada's Comstock Lode. The Union Iron Works (now called San Francisco Drydock) was transformed from a foundry and machine shop into one of the world's most modern shipyards in 1883, expressly to construct warships for the Navy as United States Imperialism expanded into the Pacific. By the beginning of the 1890s, San Francisco shipyards were doing \$3.5 million worth of work a year as they built the heavy cruisers and battleships that comprised Commodore Dewey's fleet, the naval force that destroyed the Spanish Armada in Manila Bay on May 1, 1898.<sup>39</sup> During both world wars, but especially the second, San Francisco became the hub of one of the premier shipbuilding areas of the world. At its peak, during the Second World War, shipyards from Marin County to Richmond in Contra Costa County employed upward of 250,000 workers. Although there was an extraordinary drop-off after the war, with shipbuilding—except for an occasional barge—phased out, the ship repair and heavy steel fabrication industries continued to flourish. During all of these boom periods, relatively high wages and decent working conditions prevailed, although they were achieved only through struggle by workers organized in strong trade unions.

In the last two decades, however, a once-vibrant Bay Area metal trades industry has virtually been destroyed by international competition and the end of the Cold War. In the late 1970s, the development of productive capacity in other parts of the world began to generate competition in many of the market areas traditionally dominated by Bay Area fabricated steel products. Since the end of World War II Bay Area shops had been major suppliers of steel pipe and structural weldments for the Middle East, Asia, and even Europe. However, the development of a lower-wage, modern, and more productive Japanese steel industry, and the emergence of newly industrializing countries, led by South Korea, as well as revitalization in Europe, convinced the owners of West Coast fabricating plants that, rather than competing, their capital could be invested more profitably in other enterprises. American Bridge, the fabricating division of United States Steel, located in South San Francisco, was the first big plant to close. Although hundreds of workers agreed to significant concessions—both a pay freeze and a change in working conditions designed to boost production—the company shut its doors for good in 1983, permanently laying off about five hundred workers.<sup>40</sup> In the next decade virtually every fabricating shop in the area shut down or scaled back appreciably. Today fewer than four hundred workers are covered by the union's shop contracts.

With the official end of the Cold War, the Navy, after more than one hundred years of economically and politically nurturing and sustaining the ship construction capabilities of the Bay Area, has withdrawn the fleet and with it the maintenance and repair contracts that sustained so many businesses and provided the major source of income for thousands of metal trades craftsmen and their families. Well into the mid-1980s, the ship repair busi-

ness thrived on virtually guaranteed profits from more than \$150 million a year in "cost-plus" maintenance contracts from the United States Navy on scores of ships, including two nuclear aircraft carriers home-ported in the Bay Area.<sup>41</sup>

While the Navy was by far the largest customer for the shipyards, significant additional commercial business came from local shipping lines, cruise ships, container ships, and tankers calling at local ports. By the late 1980s much of the Navy work had been transferred to other areas, and the biggest multinational corporations, first Bethlehem Steel and then Todd shipyards, closed down their local operations, resulting in huge job losses. Virtually all of the commercial ship repair business went to lower-wage areas of the Pacific Rim (Japan, South Korea, Taiwan, and Singapore).<sup>42</sup> Even Navy repair work, which requires workers to be citizens when performed in United States yards, was partially transferred during the Reagan years to Japanese yards.<sup>43</sup> Mare Island Naval Shipyard, the oldest Navy facility on the West Coast, was closed in 1995. The Alameda Naval Air Station, homeport to several aircraft carriers and numerous support vessels, was closed in 1997, as the Navy scaled back its surface fleet from more than 600 ships during the Reagan years to 340, and in the process closed selected bases.<sup>44</sup> By the end of 1997, the last of the Bay Area Navy contracts had been completed.

Powerless to control either the increased international competition or the withdrawal of lucrative Navy contracts, and unable to reorganize the labor process, management's principal strategy is to redistribute skills by resurrecting the nineteenth-century craftsman-helper labor system. The loss of jobs has left a large and highly skilled industrial reserve army of labor and severely weakened the influence of the unions over how workers are classified. Presented with a plentiful supply of skilled craftsmen stripped of most union protections, management has abandoned compromise and pursues short-term, cost-cutting strategies of union busting, wage freezes, benefit reductions, and, especially, labor force reconfigurations that reward a select few but cheapen and debase the majority of the workers they still employ. The workforce has been stratified into a highly skilled core group, which continues to work with the tools, performing the difficult and precise tasks inherent in the ship repair labor process, assisted by "craft-less" utility workers, "helpers," who work alongside them under their immediate supervision. Management believes that up to 30 percent of the work previously done exclusively by mechanics can be performed by utility workers at one-half the wages. Almost all the new nonunion shipyards, as well as the biggest of the union yards, are organized around this principle—paying key craftsmen over scale (even over union scale) in return for their acting simultaneously as both workers and low-level supervisors. More often than not, the "helpers" are former journeymen whom management is now able to employ at bargain rates. Many men recently employed as mechanics, but not

selected for the core group, and facing permanent unemployment, accept positions as utility workers in a desperate effort to secure steady work.

This new labor force configuration and its supervisory scheme tends to produce resentment and division among workers previously united in the single classification of journeymen. Management further enhances its ability to maintain discipline by heightening the uncertainty and insecurity that all workers experience. Determining who will be allowed into the core and how long they will remain there is the work of a capricious and elaborate company-controlled system that regulates individual workers through evaluations of skill and *attitude* and through disciplinary practices. Individualized evaluations, drug tests, company-determined paths of advancement, and favoritism ("key employee" designation, for example), combined with the constant threat of possible demotion and layoff, breed considerable competition and conflict among workers seeking the coveted jobs, while spurring at least a core of workers to greater effort and loyalty to the company, especially when their unions fail to offer protection or promote solidarity. This strategy also breeds fear, contempt, and sometimes resistance, especially among peripheral workers, who remain essential for completion of the big jobs. These workers find collective action difficult to achieve, however, because they are dispersed and isolated, get little support from their unions, and when they finally do get hired are mostly concerned with getting as much work as possible before their inevitable next layoff.

In a recent book, David Gordon analyzes United States corporate managerial strategy and its effects on workers, in the face of increasing global competition. He discusses both the "high road" attempts to "build economic growth and prosperity through cooperation and strong worker rewards" and the dominant model, the "low road," which applies the "stick strategy," characterized by falling or stagnant real wages, increased "conflict and insecurity," and a system of discipline and control relying upon "harsh worker punishment."<sup>45</sup> Clearly, San Francisco Drydock has chosen the low road. Whether it will make the company competitive and profitable is dubious.

#### GLOBAL IMPASSE, LABOR IN FRAGMENTS

Bay Area metal trades workers have always been affected by forces beyond our control, buoyed and buffeted by precious metal bonanzas, wars, depressions, and the economic cycles of industrial capitalism. But this time is different! For the last two decades we have been suffering the local effects of a profound reconfiguration of global economic and political forces, resulting in the transformation of the United States from an industrial to a postindustrial society. This transition has already expelled the vast majority of us from our crafts and forces those of us who remain in the trades to labor

under deteriorating and degraded circumstances. In response to either an absence of work or intermittent employment under increasingly disciplinary conditions, almost all of us are seeking alternative ways to earn a living, before we are crushed. Most hold in contempt the low-wage service sector jobs that we fear we might be forced to accept, but the emerging postindustrial world offers us few other opportunities.

The end of each big job always results in a kind of diaspora as each worker is left to fend for himself. By early January 1997, the last of hundreds of boilermakers, machinists, pipefitters, and others who came together, for a period of up to three months to repair the S.S. *Chesapeake*, the S.S. *Cape Mohican*, the S.S. *Green Valley*, and several other ships, were laid off. A series of small jobs provided periodic work for most, but not all, workers with seniority in many trades during the rest of the year. In the following six months, carpenters, painters, and pipefitters obtained some work, as ships requiring painting below the water line came in for drydock work. But no significant steel job was undertaken in the following year.

Some of those who have been dispersed are living on unemployment benefits, on the wages of their spouses, or by working on some union job in outside construction, known as the "field" (a very small minority). Others find employment in nonunion shops, in shipyards or construction jobs, or operate in the underground economy, somehow managing to get by by hook or by crook. How many will be called back when, and if, new work arrives is unknown. Some of those recalled will never return. The end of virtually every job produces some attrition, even among the most skilled in their prime wage-earning years, workers who finally give up their trade and seek other work to feed their families.

Kevin, whom I described at the beginning of this chapter, has already lost everything: his job, his home, his family, his dignity, his self-respect, and his status in the community. He has become a beggar. Those who pass him every day—a few stop to chat, some to give the brother coffee, food, and/or a smoke—are seeking ways to cope as their employment world disintegrates too. Many have plans, realistic and not, for getting out before they are inevitably thrown out permanently. Steve, a foreman in the steel department, who got hired on as low-level management at the Drydock when the yard he was working in closed down a year or so ago, is in the process of opening a limousine business. He has bought the car and applied for all the licenses, and although he has aspirations to own several cars, and employ men to drive them, he knows that in the beginning *he* will be the driver. Because he is so well integrated into the lower management old-boy network, he has more room to maneuver than most. As long as the yard remains open, his knowledge, connections, and skills virtually assure him employment (he could certainly hire in as a journeyman shipfitter). In his early forties, with young children, he sees the risks, work, and uncertainty of

this small business venture as far more promising than reliance on the yard alone to provide his family with a livelihood.

The vast majority of the men, those without seniority who work only when a big job comes in, are in an even more precarious situation. Harry, an experienced and capable shipfitter, and the organizer of the most successful and efficiently run sports pools, has grown weary, like so many, of the feast and famine nature of the work in the yards. He was quite sick with a bad cold or the flu as we worked the graveyard shift out on the open decks in the heavy winds and rain last winter, fabricating and installing lifeboat foundations. He spoke bitterly and passionately about not having medical coverage, although he works every job the union, of which he is a trustee, dispatches him to. Harry has left the trade, taken his early retirement pension, and is driving a cab for a living. George, a journeyman welder for more than twenty years, and a foreman at another yard during a time not so long ago when work was much more plentiful, now makes ends meet by managing the apartment building he lives in, taking every shipyard job the union dispatches him to, doing nonunion jobs if necessary, and collecting unemployment benefits. Last year, for the first time, his unemployment insurance ran out before a new ship came in. After the last job, he too spoke repeatedly of quitting, and is actively pursuing a job at a new casino being opened on the Peninsula. Bob and Pete, two brothers, both excellent welders, recently gave up their shipyard seniority and took jobs with a nonunion construction firm. Despite a long commute and an uncertain future, they felt the jobs would be safer and would provide steady work for at least a year or two. More importantly, during the first month on the job they felt that their skills were recognized and honored and their persons respected. They eventually quit after repeatedly being pressured to work mandatory overtime and are now once again seeking work in the shipyards.

Even these accomplished and enterprising workers realize they do not have the skills, either technical or social, to function in the computerized occupational world that has recently emerged, the world where the good jobs of the future will be located. At best, they float between degraded metal trades craft work and the world of "in-person services." I am virtually unique among them because I have the ability to escape that dilemma. Unlike them, I can *choose* either to fit steel or to write about it. Unlike them, I can move into the world of "symbolic analysts," where my skills at utilizing concepts, computers, words, and ideas can potentially earn me greater material rewards and certainly more recognition, honor, and higher status than the most proficient craftsmen will ever get in the fabrication shops or the shipyards. Unlike the overwhelming majority of them, I can face the future with some security. The tragedy of this situation is especially poignant because these very workers and their predecessors have built the infrastructure that makes the technological marvels of the twenty-first century

possible. They have laid the groundwork for a new world in which they no longer have a place.

## NOTES

I could not have written this essay without the unstinting aid of two very special people, Lincoln Bergman and Elisabeth Garst. My best friend Linc, a superb editor and sensitive scholar, read and constructively criticized every version of the paper, as well as every e-mail comment and critique I received. He steadfastly encouraged me to tell this story as I lived it and as I was coming to understand it. Lizzie's copy-editing somehow managed to bring my writing into some proximity to the "King's English," and she was the source of numerous incisive comments and beneficial critiques. A generous two-semester research grant from the Institute of Industrial Relations, University of California, Berkeley, was indispensable and greatly appreciated. An earlier version of this paper won the 1997 Braverman Award from the Labor Studies Division of the Society for the Study of Social Problems.

1. Harry Braverman, *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*, p. 444. My emphasis.

2. The description given by Keith McClelland and Alastair Reid, regarding the fundamental consistency in skill requirements during the transition from wood to iron shipbuilding more than one hundred years ago, accords almost perfectly with my observations of conditions during the last twenty-five years in the ship repair and steel fabrication trades in the Bay Area. According to these authors, "What is striking is the extent to which the industry *remained* based upon hard physical labour and the skills, judgement and experience of workers and, concomitantly, *tools rather than machines—i.e., equipment that was the instrument of labour rather than vice versa.*" See Keith McClelland and Alastair Reid, "Wood, Iron and Steel: Technology, Labour and Trade Union Organisation in the Shipbuilding Industry, 1840–1914," p. 163. My emphasis.

3. Michael J. Piore and Charles F. Sabel, *The Second Industrial Divide: Possibilities for Prosperity*, pp. 115–20, 303–7, and 321.

4. Michael Burawoy, *The Politics of Production: Factory Regimes under Capitalism and Socialism*, p. 87.

5. *Ibid.* Emphasis in original.

6. "If the macro-regulatory requirements of mass production are relatively well-defined, those of flexible specialization remain the *least developed aspect* of the model." Paul Hirst and Jonathan Zeitlin, "Flexible Specialization versus Post-Fordism: Theory, Evidence and Policy Implications," pp. 4–5.

7. Of all the writers concerned with the relationship between skill and craft, D. J. Lee makes the strongest case for the importance of the labor market as "a source of deskilling in its own right." He treats the labor market as a "series of social filters intervening between productive skill and class structure." He concentrates on three "shifts" or "effects": industry shifts, cyclical shifts, and occupational shifts. His treatment of cyclical shifts, or those caused by recessions, are most relevant to the Bay Area metal trades workers. Lee argues that cyclical unemployment is a form of deskilling for three reasons. First, it is likely to be permanent, especially if workers

are in the latter stages in their life cycles. Second, even with recovery "many *individual* workers" will experience "substantial dislocations" because of "organizational, financial and geographical shifts in the locus of employment." Finally, "recession (and not labour process deskilling) provides the most direct and tangible form in which the initially relatively privileged groups, such as skilled workers, experience proletarianization. In short, cyclical deskilling is likely to be highly relevant for understanding how key groups of workers *experience* the unfolding of class relationships in a society." If we substitute Lee's concept of "absolute industry shifts," for "cyclical shifts," we have a very accurate description and analysis of what has happened to Bay Area metal trades workers over the last quarter of a century. D. J. Lee, "Skill, Craft and Class: A Theoretical Critique and a Critical Case," pp. 60–61, 66.

8. Braverman, p. 5.

9. *Ibid.*, p. 119. Emphasis in original.

10. *Ibid.*, p. 121.

11. *Ibid.*, p. 119.

12. In some limited-safety areas, workers today are better off than they were twenty-five years ago. Then it was hard to find a boilermaker who had been in the trade for any time at all who could still hear. I was several years in the trade before a "progressive" monopoly corporation, United States Steel, began insisting on the use of ear protection in its fabrication shops. First, of course, we were given hearing tests, so that we could not sue for previous damage. The greatest safety improvements have been in the availability and quality of personal respiratory devices, although engineered methods of ventilation may have deteriorated during the same period.

13. My information comes from personal discussions with Boilermakers Union Business Agents and with Arthur E. Johnson, Director, Labor Relations, California Metal Trades Association, winter 1996 through spring 1997, and from "Master Agreement between The Plate and Tank Division, California Metal Trades Association and International Brotherhood of Boilermakers, Iron Shipbuilders, Blacksmiths, Forgers and Helpers of America, AFL-CIO. July 1, 1974–June 30, 1977."

14. Joseph A. Blum, "The African-American Struggle for Equality In the World War II West Coast Shipyards."

15. The concept of the internal state at the workplace is most fully developed by Burawoy. "The term 'internal state' refers to the set of institutions that organize, transform, or repress struggles over relations in production at the level of the enterprise." Its form changes as capitalism grows and matures from despotism under competitive capitalism to hegemony under monopoly conditions. "With the rise of the large corporation and trade unionism, the institutions of the internal state have become disentangled from the managerial direction of the labor process and embodied in grievance procedures and collective bargaining. The emerging internal state protects the managerial prerogative to fashion and direct the labor process by imposing constraints on managerial discretion and by endowing workers with rights as well as obligations." *Manufacturing Consent*, p. 110, and see especially chapter 7.

16. Piore and Sabel, p. 117.

17. "1983–1984–1985 Pacific Coast MASTER AGREEMENT: The Pacific Coast Shipbuilding and Ship Repair Firms and the Metal Trades Department of the A.F.L.–



C.I.O., the Pacific Coast Metal Trades District Council, the Local Metal Trades Council, the International Unions Signatory Thereto," ratified October 13, 1983, Article 16.10 ("Physical Examination"), p. 7. This contract is hereafter referred to as "1983 Contract."

18. Ibid., Article 16, Subsections 1-7, 11-12, pp. 6-7.

19. Ibid., Article 16, Subsection 8, pp. 6-7.

20. Ibid., Article 12, p. 5.; Article 16, Subsection 6 (b), p. 6. The "Dirty Work" provision called for double-time pay not only when working in "tanks, bilges, sumps, or under floor plates where oil or water has accumulated, or in boiler, uptakes or stacks," or "when cleaning or working in septic or holding tanks containing human waster [sic] where entry is required," but also "in areas in the machinery spaces where an unusually dirty conditions [sic] exists."

21. While double-time pay was not given by management, a small raise was granted to everyone working in the bilges.

22. Shoshana Zuboff's description of "knowledgeable" work, as work based upon "knowledge that accrues to the sentient body in the course of its activity, knowledge inscribed in the laboring body . . .," "knowledge filled with intimate detail of materials and ambience," knowledge derived from "action and displayed itself in action, knowledge that meant knowing how to do, to make, to act-on," most accurately captures the nature of skilled ship-repair work. In *The Age of the Smart Machine: The Future of Work and Power*, pp. 40-41. Emphasis in original.

23. As of July 15, 1997, Boilermakers Local #6 had 884 members, with about 200 on the out-of-work list. By July 1, 1999, membership had fallen below 750. Figures from earlier times and other union information was obtained in ongoing conversations with the Business Agent and Assistant Business Agent of Local #6. The most recent figures are based upon my personal knowledge as Dispatcher and Recording Secretary of Local #6.

24. A meeting in July 1997, to nominate officers for the local, failed to produce a quorum. According to the then Local Business Agent, the local has failed to obtain quorums since 1994. In mid-1998 this trend was at least partially reversed. A more democratically oriented Business Manager has held regular meetings with about 3 percent of the members attending. He has revived rank-and-file meetings with various shops and shipyards when contract negotiations begin, and he has appointed shop stewards more responsive to the average worker.

25. The first vote, in which the contract was overwhelmingly defeated, was a mail ballot. The second vote took place at the shipyard under the watchful eyes of foremen and other members of the management team. It was ratified by a vote of 111 to 106, with one blank ballot (Official Notification by Pacific Coast Metal Trades District Council, Richard E. Harden, Executive Secretary-Treasurer, July 31, 1996).

26. If the unions are able to get any contracts these days, they are almost invariably with a single firm. Long gone are the coastwide agreements that guaranteed identical wages and conditions all along the Pacific Coast north of Los Angeles, thus making it impossible for employers to play one area against another in order to get limited work.

27. "General Presidents' Pacific Coast Master Shipyard Industry Recovery Labor Agreement" (Negotiated Between San Francisco Drydock, Inc., and The Metal Trades Department of the AFL-CIO, The Pacific Coast Metal Trades District Council. The Bay Cities Metal Trades Council and The International Unions Signatory

Thereto, Effective July 30, 1996 through June 30, 2000), p. 2. Hereinafter known as "Contract."

28. Ibid., Article 2.3, p. 3.

29. Starting wages for utility workers for all four years (1997-2000) of the contract are \$9.00 per hour. They can rise as high as \$13.00 per hour the first year, \$13.25 in the second and third years, and \$13.50 in the final year, but no criteria or protocol are specified as to when or if a worker is entitled to a raise. In 1993, the latest year for which statistics are available, the average hourly labor cost for shipyard labor in Korea was \$8.32 per hour. The Korean figures include fringes; the local figures do not. The fringe benefit package at the shipyard is believed to be worth about \$3.83 per hour. "Contract," Schedule A, p. 26. The source of the Korean statistics is the United States Bureau of Labor Statistics as supplied on the World Wide Web by Colton and Company at <http://www.coltoncompany.com/index/shipbldg/wages.htm>.

30. "Contract," p. 9. Many of the newly hired utility workers are former journeymen in various crafts. Lacking seniority, they were failing to get steady work in their craft. Because management knew many of them to be reliable workers, they were offered the new lower-paying classification with the promise of more hours of work. Each is assigned to one or another of the crafts, but they no longer have journeyman status. Nor, given the lack of work in the yard, have their hours gone up appreciably. Other utility workers are new hires from off the street. In at least one case, the same worker was laid off one day as a journeyman shipfitter and hired back the next as a utility worker. He was promised journeyman status on the next job but said he preferred work as a utility man at lower wages to no work at all. Seniority is granted to utility workers on a yard-wide basis regardless of trade after they have worked a cumulative 120 days in a one-year period. "Contract," p. 18.

31. Ibid., p. 20.

32. Company handout touting the advantages of the evaluation process to both management and workers, labeled "EP."

33. Grandfathered journeymen will remain indefinitely at \$15.85 an hour. Journeymen get \$16.25 the first year and increases of \$0.25 per year, reaching \$17.00 in the year 2000. Craftsmen start at \$17.00 in the first year and increase \$0.50 per year, reaching \$18.50 in the last year. Master Craftsmen begin at \$18.00 and reach \$20.00 in 2000. "Contract," Schedule A, p. 26.

34. This "craftsman's ethical code," with its stress upon autonomy, dignity, and equality, was first identified and analyzed by David Montgomery, *Workers' Control In America: Studies in the History of Work, Technology and Labor Struggles*, pp. 11-15.

35. "Contract," pp. 25, 27-31. Of thirty pages of text in the contract, six are devoted to substance abuse.

36. Ibid., p. 27.

37. Letter from Leonard Limtiaco, Director of Enforcement & Investigations, Occupational Safety and Health Administration, U.S. Department of Labor, to Carl Hanson, General Manager, San Francisco Drydock Inc., Case Number 72601040, December 26, 1996.

38. Letter from Alex Williams, Safety Coordinator, San Francisco Drydock, Inc., to Pauline M. Caraher, Occupational Safety and Health Administration, Phoenix, Arizona, January 2, 1997. The letter denied all charges of violations and supplied photographs "proving" adequate lighting and ventilation in all confined spaces.

39. The most complete account of the early San Francisco iron and shipbuilding



industry is found in Joseph A. Blum, "San Francisco Iron: The Industry and Its Workers—From the Gold Rush to the Turn of the Century."

40. The closing of this plant by United States Steel took place during the same period of massive closings of their steel mills in Pennsylvania and Ohio. In 1982 the corporation invested \$6 billion in its purchase of Marathon Oil. For details concerning capital flight, see Barry Bluestone and Bennett Harrison, *The Deindustrialization of America*.

41. According to James Ruma, a contracts administrator in the office of the Supervisor of Shipbuilding Conversion and Repair, United States Navy, San Francisco Division, repair contracts on United States naval vessels remained at well over \$100 million per year and peaked in the late 1970s and early 1980s at over \$150 million. Today that figure has reached zero (numerous conversations, fall 1996–spring 1997).

42. The emergence of Korea as a shipbuilding power is perhaps the most dramatic. Korea constructed its first shipyard in 1974, delivered its first ship in 1981, and today is the second largest shipbuilding nation in the world. In 1994 Korea delivered 115 vessels totaling 5.17 million gross tons, representing 27.3 percent of the world total. Only Japan, which also had no shipbuilding industry after World War II, had a larger share of the shipbuilding world market. See "The Shipbuilding Industry in Korea" on the World Wide Web at [www.iworld.net/Korea/industry/f206.html](http://www.iworld.net/Korea/industry/f206.html).

43. Discussions with Boilermakers Business Agents.

44. "Background," from the Center for Advanced Ship Repair and Maintenance, Norfolk, Virginia, on the World Wide Web at [www.odu.edu.gnusers/miatc\\_v/casrm1.htm](http://www.odu.edu.gnusers/miatc_v/casrm1.htm).

45. David M. Gordon, *Fat and Mean: The Corporate Squeeze of Working Americans and the Myth Of Managerial "Downsizing."*

## PART TWO

# Global Connections