

SPECIAL FEATURE

The Myth of Black Obsolescence¹

Jason Resnikoff

Author affiliation information TK

Email: j.z.resnikoff@rug.nl

A few years ago, the global consulting firm McKinsey and Company began issuing a series of increasingly urgent reports concerning “automation” and the future of work. Defining automation broadly as artificial intelligence and “other digital technologies,” the company promised in its reports that it could advise companies how they might prepare.² Amidst this flurry of publication, McKinsey produced several articles specifically on the theme of “The Future of Work in Black America.” With “a new and proprietary data set”—a data set so proprietary readers were not privileged to see it—McKinsey claimed that “automation” would hurt the job prospects of Black Americans, and in particular Black men, more deeply and more broadly than any other demographic group in the United States. The jobs Black people held, McKinsey seemed to believe, were precisely those best performed by robots. For McKinsey’s analysts, this conclusion was all but obvious when one considered, first, the racist exclusion of Black Americans from the resources of society, and second, the levels of education required to obtain the jobs Black people in America disproportionately hold, like “truck drivers, food service workers, and office clerks.”³

Contrary to the claims of McKinsey’s analysts, however, “automation” was not the threat it seemed.⁴ Between 2005 and 2018—precisely the moment when, according to McKinsey, technological developments “put us on the cusp of a new automation age”—the US economy suffered a dramatic *slowdown* in labor productivity. The Bureau of Labor Statistics called the drop off in productivity “one of the most consequential economic phenomena of the last two decades,” constituting nothing less than a “swift rebuke of the popular idea of that time that we had entered a new era of heightened technological progress.”⁵

How a period of remarkable sluggishness in labor productivity could be confused for its precise opposite—and by those who claim to possess expert knowledge in such things—is a question for another day. Instead, for the present, we must ask why in the managerial imagination the mere idea of the mechanical abolition of labor immediately implicates the jobs held by Black people.⁶ For even during periods of high productivity, like, for example, the middle of the twentieth century, claims that “automation” would abolish the jobs of Black people ignored the many ways in which changes to the labor process intensified and degraded their labor, leading both to high unemployment and speed-up on the line. “All Automation has meant to us is unemployment and overwork,” said one autoworker in the mid-1950s,

© International Labor and Working-Class History, Inc., 2023. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

*“Both at the same time.”*⁷ Or in the words the League of Revolutionary Black Workers, again in reference to the automobile industry, this time in the 1960s: “A process called ‘niggermatation,’ is more pervasive than automation. Often new black workers are forced to do the work of two white men.”⁸ Nevertheless, McKinsey’s analysts assumed that technological progress necessarily meant the elimination of Black workers from the labor process. That assumption has a history. It is an old story in American history, one that casts Black Americans as especially ill-suited both to industrial society and modernity. William Jones has named it the Myth of Black Ulysses. One might also call it the Myth of Black Obsolescence.⁹

To understand the significance of this myth, it helps to work backward from the rise of the automation discourse itself. After a discussion of the ideological origins of the automation discourse in the middle of the twentieth century, it will then serve to consider how many of the discourse’s rhetorical features came into existence over a century earlier in an effort to denigrate Black workers in an industrializing United States, including among those reformers who suggested that Black Americans required special training to join the new industrial labor force. This same dynamic—arguments of human obsolescence and the salve of job training—became central in the mid-twentieth century automation discourse, in which the myth of Black obsolescence took on a new life, where a few good liberals then defended the institution of slavery in principle. To conclude, we bring the story into the meatpacking industry of the present to see how the myth and the automation discourse continued up to the turn of the twenty-first century to obscure the contributions of Black workers in the United States.

The Myth of Black Obsolescence, a Model for the Automation Discourse

Historically the word “automation” has been more a descriptor of ideology than engineering, one that employers used to obscure, not eliminate, the necessity of human labor. It has meant something much more than the simple rise or fall in the rate of productivity. Coined by managers in the automobile industry in the interwar period, the word “automation” only came into common parlance in the years after World War II and served to describe a belief that the human body had reached the limit of its industrial usefulness. Playing off the technological enthusiasm of the postwar period, managers used the term “automation” to argue that society had reached a new and unprecedented epoch in human history where technological progress itself meant that physical human labor, in particular in industry, was fast becoming obsolete. In fact, what employers, engineers, journalists, politicians, and even some union leaders called “automation” was materially indistinguishable from the long history of mechanization. Sometimes a technical change in the labor process might reduce labor in a narrow portion of the labor process—like the transfer machine in engine building or the speed of calculations in an office computer—but often these changes merely sped up the human labor already present. In one example, office “automation” in the postwar period led to the expansion of the number of clerical workers employed in the United States, not their reduction.¹⁰

Rather, what was new in the postwar period, especially in the automobile industry where the term “automation” was first coined, was the codified, enduring presence on the shop floor of a powerful industrial union movement. In an era where outright

hostility to the principle of collective bargaining was no longer possible, “automation” was a way for employers to escape the bargaining table by deploying the technological optimism of the postwar era to argue that unionized workers had become technologically obsolete. Most remarkable, however, was not that employers deployed the automation discourse, but rather that so many across the political spectrum agreed—from Marxist Humanists to radical feminists, New Deal liberals to New Left activists, titans of industry to union leaders. The postwar automation discourse held that industrial progress meant that human labor, in particular physical labor in industry, was becoming ever more obsolete—that technological progress and the (inevitable) elimination of physical human labor were the same thing. This was likewise a reprise of an older claim from the nineteenth century, in which employers and reformers argued that technological progress would have no place specifically for Black labor because Black workers were themselves not ready for the industrial future. In the minds of industrial capital and its managers since the latter part of the nineteenth century, it would seem, Black workers have forever been on the brink of industrial obsolescence.¹¹

According to the myth of Black obsolescence, a Black person’s labor and machine-action were basically equivalent, for both performed the same task: degraded physical labor. The machine and a Black person’s labor could appear as functional equivalents, at least among some who equated industrialization with social progress, because there already existed the notion of a specific kind of work that was coded as essentially unthinking, almost purely physical with little intervention of the mind, work that was in and of itself essentially coercive, done at the command of another—that is, the activity of an enslaved person.¹²

The myth of Black obsolescence was, obviously, false. The labor of Black workers was essential to industrializing America, and it goes without saying that Black workers were no less thinking in their labor than other workers. The racist myth persisted because it naturalized exploitation, and as such lent itself to those who wished to have labor more cheaply or to exclude Black people from a shop entirely. By arguing that Black workers were not ready for industrial society, employers (and white workers) could claim that the cheapening and exploitation of labor was a trait of Black workers themselves, a fact merely revealed by technological change, rather than the result of the hiring and managerial practices of employers.

What management would argue for all workers in the second half of the twentieth century under the sign of “automation,” they had for the previous century maintained in their defense of the speedup and degradation of the jobs of Black workers. One can read this particular history as yet another variation on Ruha Benjamin’s claim that, “in many ways Black people *already* live in the future,” or, as N. D. B. Connolly has argued, that neoliberalism was the universalization of “the *black* side of liberalism write large, the blackening of the American polity as a whole.” Practices that other workers faced later and perhaps less terribly were, historically, often first experienced by Black Americans. As such, official responses to both the myth of Black obsolescence and the automation discourse were similar. For those persuaded that technological progress made physical human labor obsolete, the answer was not to challenge the definition of “progress,” but rather to correct the shortcomings of workers. In just the same way that reformers in the late nineteenth century demanded that

Black workers receive not control over the labor process, but special vocational training to make them better material for industrial purposes, so would the United States respond in the second half of the twentieth century that all unskilled workers were somehow retrograde. In the early twenty-first century, this would be McKinsey's answer, too.¹³

One could argue that it was mechanization itself—mere technological change—that eventually led to the development of the automation discourse, and that the myth of Black obsolescence was more an eddy in the flow of the discourse rather than a source. But timing might indicate otherwise. The myth of Black obsolescence arose in the United States in the early nineteenth century, more or less simultaneously with industrialization. Its early articulation points, once again, to the critical importance of racism in the understanding of work and freedom in the United States. The myth contributed to the idea that certain people, because of their human frame, were superfluous to industrial progress. Once accepted in relation to Black workers, it did not require a great leap of creativity or genius to apply the same denigrating logic to all workers. Particularly in moments of economic transition or uncertainty, American managers could return to the myth to blame the dispossessed for their own penury, shifting the focus of discussion away from capital and onto the shoulders of working people. In the effort to cheapen work, managers and owners needed prototypes, precedents that could be established and then expanded. The idea that some people were in principle unfit for the future could then become an explanation for the unfitness of all working people. In other words, the rhetorical move to blame workers as being unprepared for the “new” economy begins, again and again, with the myth of Black obsolescence.

The Machine and the Rise of the Myth of Black Obsolescence

The myth of Black obsolescence arose in the United States along with accelerating industrialization over the course of the nineteenth century. Skilled Black artisans and craft workers were by no means unknown in the cities of colonial America, but the establishment of the Republic witnessed a heightening of racist restrictions throughout the nation as white craftsmen and lawmakers radically narrowed Black Americans' access to skilled trades. Incipient industrialization throughout the nineteenth century, as well as a notion of free labor and Republican virtue coded as belonging to white men, led white lawmakers to explicitly shut Black workers out of access to formal craft training. In pursuit of cutting Black workers out of the trades, some northern and border states outlawed Black immigration to their territories entirely. Slave states passed proscriptions throughout the 1820s and 1830s to exclude enslaved and free Black workers from the crafts. Charleston prohibited enslaved workers an apprenticeship in “any mechanic or handcraft trade,” with “menial” positions “necessarily confined to coloured persons.” Free Black people in Savannah, Georgia, could not reside in the city—and therefore could not practice a trade there—until they forfeited a \$100 remittance. In 1822, the city council of New Orleans outlawed Black people from holding municipal jobs, even as by midcentury approximately half of all Black men working in New Orleans practiced skilled trades.¹⁴

A key element in what would become the myth of Black obsolescence held that Black workers were in the main unskilled, their labor essentially unthinking and mechanistic. Yet, obviously, Black people had successfully practiced the formal crafts. In other words, even as Black workers performed a great deal of skilled labor in antebellum New Orleans, still the city fathers preferred to think of all Black workers as unskilled. By the second quarter of the nineteenth century, this presumption of skill-lessness and obsolescence found energetic expression in the celebration of industrial machinery.

On the eve of the Civil War, Thomas Ewbank, former United States Commissioner of Patents, sought to demonstrate how technological progress would end slavery by rendering the labor of Black people obsolete. In his *Inorganic Forces Ordained to Supersede Human Slavery*, (which, according to the *New York Daily Tribune's* positive review, "attracted much attention"), Ewbank asserted that different races were best suited to perform different kinds of work "The white race," he asserted, "is the leading one." The "other races" were to follow both its example and command. In this ostensibly natural division of labor, the "forced labor of blacks" was necessary to maintain civilization. In this way, Ewbank reprised James Henry Hammond's "mud sill" proposition that every accomplished society rested upon the exploited labor of lesser beings. Like Hammond, Ewbank defended slavery in principle by asserting that Black people lacked the intellectual capacity to govern themselves. "The development of high intellectual endowments is retarded," he said, "that [they] may contribute labor incompatible with them." This state of affairs would have seemed to condemn Black people to slavery in perpetuity, at least if humanity wished to continue on its unending road to "progress."

Luckily, or so Ewbank reasoned, the rise of industrial machinery and the burning of fossil fuels would soon perform precisely the kind of work to which he believed Black people were best suited, that is, unthinking and physically grueling bodily labor. According to the former Commissioner of Patents, the purpose of society's nascent industrial apparatus was to do the work of enslaved people, and because in Ewbank's mind slavery was an inevitable result of nature, it followed that only nature-conquering machines could rid the nation of the practice. "But for this wonderful and most beneficent provision," wrote Ewbank, "negroes would be captured and sold in greater numbers than ever. There would be no end to their enthrallment [sic]."¹⁵ The new sources of power were, therefore, a godsend for those who took exception to the peculiar institution. Ewbank had some surprising allies in this conviction, especially considering that it presupposed the necessity of slave labor as a part of civilized life. It was a writer for none other than *The Liberator* who demanded "the invention of machines to do slave labor" to speed slavery's abolition, while *The Atlantic Monthly* held out the hope that the development of the "iron bound, coal eating slave," would mean that "we shall at last have a safe subject, available for all sorts of drudgery."¹⁶

Nor was Ewbank the first to see industrial mechanism as a fit replacement for coerced labor. Oliver Evans, inventor of a much-celebrated automatic flour mill, wrote in 1805 that steam "at once presents us with a faithful servant, at command in all places, in all seasons."¹⁷ Edward Everett, governor of Massachusetts, praised industrial machinery in 1837 as an "orderly population" of natural slaves that were

“subject to an absolute control without despotism; laboring night and day for their owners, without the crimes and woes of slavery. . . [that] annually lavishes the product of one million pairs of hands.”¹⁸ On the occasion of the laying of the first trans-Atlantic telegraph cable, Joseph Henry, first secretary of the Smithsonian, celebrated “the subjection of the innate powers of the material world to the control of the intellect as the obedient slaves of civilized man.”¹⁹

The recurrent mechanical analogy to slavery in the mid-nineteenth century, in particular among northern critics of the institution who assumed slave labor was necessarily unskilled, prefigured many elements of the future automation discourse, in particular, a conceptual opposition between the idea of mindless bodily labor (understood as necessary but bestial), and the overseer’s work of the mind. Abolitionist John G. Whittier declared that “slave-labor is the labor of mere machines,” while an Attorney General of the United States insisted in 1865 that “the law of slavery makes the man a mere machine.”²⁰ According to *Scientific American*, the steam engine was the “slave of the human intellect.” Once installed, “the workman could take his proper place and oversee the ‘slave’ that saves him unnecessary toil and labor.”²¹ In 1860, Wendell Phillips insisted that technological progress “made hands worth less and brains worth more,” and that this—the elevation of mind over body—necessarily meant, “the death of Slavery.”²² George Opdyke, future mayor of New York City, criticized slavery for rendering enslaved people “merely productive machines belonging to owners and subject to their will.” In fact, slavery “completely separates Labor from Skill, and converts the former into Capital,” that is, mere mechanical action.²³

For his part, Ewbank said relatively little as to what role formerly enslaved people would play in the economic life of the nation once their labor was substituted by industrial mechanism. As his pamphlet went to press, the “colonization” movement was finding its fortunes momentarily renewed. Long ailing since its peak in the 1830s, in the crisis period of the late 1850s the proposal to remove Black people physically from the United States enjoyed a revival in the Republican Party. A softer vision of extermination, colonization could appeal to the many who opposed slavery but remained, nevertheless, anti-Black. Ewbank’s take on the problem lent the proposal a certain technical allure. His story of technological progress itself could seem to ratify in iron laws of economic development the fantasies of those who wished to ethnically cleanse the nation.

Even so, Ewbank held out some hope for Black Americans, for though he believed they could never hope to reach the same attainments in culture or science as white people, still he argued they possessed a “germ” of the “element of progress” that distinguished humanity from the rest of creation. Therefore, once the labor of Black people had been replaced by industrial machines and fossil fuels, they themselves would need improving if they wished to have a place in the rising industrial order. The new mechanisms would help with this. As machines performed more of the work to which Black people were naturally suited, Ewbank prophesied, the small portion of the progressive germ that belonged to Black people would quicken and grow. In his words, the slave would become “an overseer.”²⁴

Here in Ewbank’s argument lay the main elements of both the myth of Black obsolescence and what would become the automation discourse.²⁵ First, that some kinds

of work were naturally degraded, thoughtless, and physically grueling—that is, essentially slave-like. Second, that the built world should ideally act like an enslaved person. And, finally, that if Black people were to continue to have any purpose in the new machine age, they would necessarily need to be improved.

Racism and the Industrial Meaning of Work

The industrial meaning of Black labor varied across time and space. In the years before the Civil War, generally speaking, northern industrialists refused to hire Black workers in their factories, while Southern owners made ready use of enslaved people and dispossessed free people. By the century's end, managers both North and South excluded Black workers from skilled or semi-skilled machine operating positions, often (but not always), with the support of white workers. When Black workers did gain employment in factories, employers often relegated them to positions at the bottom rung of the workforce in jobs considered unskilled and nonmechanical, like janitorial positions and foundry work.

As Americans found ways to reconcile ideas of industrial laboring with masculinity and citizenship alike, employers and many white workers saw to the marginalization and, often, exclusion of Black people from many, although by no means all, workplaces. With industrial jobs becoming theoretically consistent with white masculinity, white workers themselves often policed their shops, denying the “manhood” of Black male workers in order to eliminate competition and preserve their own place in the racist hierarchy. “Thereafter emerged an insidious new idea,” Jacqueline Jones has observed, “that black people were incapable of working with machines.”²⁶

Blaming the victims of discrimination for the actions of those who sought to exclude them was, needless to say, a large concession to a fundamentally racist claim. Yet that was precisely what many social reformers of the era did. The notion that machines had displaced Black workers in particular informed certain elements of the racial “uplift” movement of the late nineteenth century. According to Samuel Chapman Armstrong, founder of the Hampton Institute, one of the first industrial schools aimed at educating freedpeople, Black workers were “dependent” and “backward,” and so needed special help in holding a place in industrial society. Other classes and nationalities were “thousands of years ahead of the Negro in the arts of civilization,” wrote Booker T. Washington, even as his Tuskegee Institute attempted to dispel that very idea. Washington attributed the marginal position of Black workers in the economy to the poverty and ignorance of Black workers themselves, rather than racist hiring practices. With the end of slavery, he claimed, too many of the freedpeople had “not learned the vast difference between *working* and *being worked*.” It was a perennial feature of the myth of Black obsolescence, and would also prove a central feature of the automation discourse's emphasis on the importance of “job-training” for those people structurally excluded from the labor market.²⁷

Rather than provide direct access to employment, reformers throughout the twentieth century and into the twenty-first would hold out the questionable (and too often, empty) promise of job training for precarious and unemployed Black workers as a solution to the inequities of the American economy. Throughout, the central premise of this kind of reform held that workers' struggles originated with the workers

themselves, that their exclusion from the job market reflected individual failings rather than an unjust political economy. In this case, reformers and US Commissioners of Patents agreed that there was something ineffably backward about Black people and their labor; history in its forward march threatened to leave them behind.

In addition to the claim that Black workers were ill suited to mechanized production, employers in the first quarter of the twentieth century justified the relegation of Black laborers to the worst and most toilsome industrial jobs by claiming that Black bodies in particular were best suited to dangerous environments. The picture they drew was that of a blunt instrument—not the hammer, but the anvil. Between the nineteen-teens and into the twenties, managers at the Ford Motor Company insisted that Black employees did not mind the stifling closeness of extreme heat in the way a white worker would, and that this explained their concentration in the company's foundries, amounting to more than two-thirds of all Black workers at Ford's massive River Rouge complex between 1918 and 1928.²⁸ "The dark pigment of the negro's skin," said one manager at a factory in Beloit, Wisconsin, that produced metal instruments, "made him less susceptible to high temperatures than a white foundry worker." Glass manufacturers in Pennsylvania likewise insisted that Black women who labored in their manufactories "stand the heat better than a white girl."²⁹ Coal mining operators in West Virginia swore that Black miners made for good coal loaders because their bodies were less vulnerable to dank, miasmatic caverns "where the air is bad."³⁰

The case of coal mining was particularly telling. There, as in other industrialized jobs, racist and gendered assumptions could turn on a dime when the opportunity suited owners. When applied to a white man doing the same task, the hazard and difficulty of mining might and often did earn a worker greater respect and sometimes more pay. When done by a Black miner, a manager could claim that the job was unworthy of a human being, a task beneath a person's dignity and therefore not befitting recognition or better wages. Outside of mining, employers degraded the meaning of work most dramatically when the job belonged to a Black woman, as in, for example, commercial steam laundries. To be clear, managers did not assign Black workers degraded industrial jobs because, in the impassioned throes of pseudoscientific racism, they honestly believed the bodies of Black people were particularly well-suited to physically demanding labor. Rather, with a class of workers on hand that they believed they could super-exploit, employers designed degraded work especially for them. They lowered pay, worried themselves less over the danger of the job, and, when compelled by criticism, rationalized away the obvious injustice.³¹

Employers wielded racist double-standards to degrade working conditions and then to assign the most arduous and poorly paid jobs to Black workers. In meatpacking, Black workers walked the killing floor. In the steel mills they fed the raging furnaces, and in the automobile factories they sweated in the red blast of the foundry. By no means was any of this work easy or simple. It made rigorous demands upon mind and body. Yet employers called it unskilled and paid cheaply for it.³² Nor were these jobs nonmechanized. In 1930, the managers at the Stockham Pipe and Fitting foundry in Birmingham, Alabama, rearranged their grey-iron department, where most but not all the workers were Black, along an assembly line—the archetypical

symbol of mechanized production.³³ According to Hosea Hudson, who worked in the department as a molder, production of cast metal shot up by a factor of four as employees now labored at a faster machine pace. “Naturally,” he said, “wages didn’t go hand in hand with the speed-up in production.”³⁴ In this case, the mechanization of metal casting intensified the labor of workers. Yet according to defenders of the segregated factory, this was the labor that machines supposedly did away with.

Of course, Black workers did not simply accept these terms. Migration and world war churned the waters and launched a wave of antiracist activism in the workshops, largely in the industrial North. While employers sought to limit Black participation in industrial laboring to a degraded sliver—as “strike insurance”—Black Americans fought to gain entry to both the shopfloor and union hall. The Brotherhood of Sleeping Car Porter’s long fight to wrest recognition from both the Pullman Company and the American Federation of Labor bore fruit in 1935 (won at the expense of the Pullman maids, who were excluded from the bargaining unit). Interracial organizing in the at least nominally antiracist CIO led to a greater inclusion of Black (again, mostly male) workers in basic industry, in particular in meat-packing, although even then CIO leaders did little to challenge the marginalization of Black workers to “black jobs.”³⁵

Nevertheless, activism did lead to important legal victories, like the March on Washington movement’s winning of the Fair Employment Practice Committee (FEPC), which provided a limited but nevertheless valuable tool with which to compel employers to hire Black workers across industries and departments. The wartime labor shortage created an opening for Black workers to expand their foothold in “good” industrial jobs that would persist into the postwar period. Racist hiring and employment conditions still obtained, but relatively low unemployment for Black workers in the first decade following the Second World War meant that Black workers could reap a portion, albeit undersized, of the swelling new abundance.³⁶

Yet well into the 1960s, employers continued to relegate Black workers to low-skill and semi-skilled industrial jobs. As late as the turn of 1960, for example, barely 1 percent of participants in United Auto Workers skilled trades apprenticeship programs were Black, and this in a CIO union that styled itself a champion of civil rights.³⁷ And just as Black Americans gained access to the ranks of semi-skilled industrial employment, the mechanism that was to launch all Americans into the new middle class, the ground shifted beneath their feet.

The Rise of the Automation Discourse

After World War II, a new ideological spin on an old idea issued from the corporate boardroom, this time from the engineering department of the Ford Motor Company. Management called this new idea automation. “I, for one, want to think of automation as a new concept—a new philosophy—of manufacturing,” said D. S. Harder, the vice president at Ford who first coined the term in the mid-1940s.³⁸ More than any particular species of mechanism or method, the word “automation” described a belief that technological progress meant the elimination of human beings from industrial production. Playing off the enthusiasm newly invigorated by the technological

marvels produced by war and publicly funded scientific research, employers hoped to argue that their attempts to squeeze more labor out of workers was not their choice but rather an apolitical consequence of progress itself. Genuinely impressed by such feats as the splitting of the atom and the invention of the electronic digital computer, most Americans were ready to believe in the automation discourse.

Unfortunately, society was not poised on the brink of the technological abolition of human labor. Contrary to the large boasts going straight from the manager's suite to the editorial page of practically every major newspaper and magazine, workers across industries described postwar "automation" not as a new era in technical mastery, but rather as a continuation of the old techniques of speed up and labor intensification.

The myth of Black obsolescence had in many ways prefigured this ideological move. The claim that industry made Black labor obsolete had been a foretaste of an argument that would only a few decades later help to degrade conditions for all industrial workers. Once again, Black people already lived in the future. Since the last quarter of the nineteenth century, racist employers had insisted that Black workers were technologically regressive, and, therefore, that the labor of Black workers—cast erroneously as particularly embodied, more physical, less intellectual—held little use for industrial society, even as employers extracted increasing wealth from that labor. Now, through the automation discourse, management extended the myth of black obsolescence to all industrial workers, in what one might call *a myth of human obsolescence*. As one of the discourse's most vocal proponents put it, management sought "an escape from designing in terms of the limitations of human operators."³⁹

Certainly the idea of "automation" appealed to automobile executives. In the post-war period, employers across the nation faced a powerful labor movement entrenched on the shop floor and armed with the 1935 National Labor Relations Act, which compelled bosses to bargain with workers. More surprising were the automation discourse's pro-labor adherents. Believing in the utopian possibilities of technological innovation as much as anyone, union leaders and Left intellectuals saw in "automation" the possibility for universal liberation. Soon, they hoped, all would be free from the indignities of industrial production. "Thus," wrote Herbert Marcuse, "economic freedom would mean freedom *from* the economy—from being controlled by economic forces and relationships; freedom from the daily struggle for existence, from earning a living."⁴⁰ Nor were Black liberation activists immune to this vision of freedom.

Here, in an ironic turn, the myth of Black obsolescence became interwoven with its discursive child, the automation discourse. The idea of "automation" gave a new credibility to the myth, encouraging some in the Black freedom struggle to subscribe to the argument that the denigration of the industrial working conditions of Black Americans was, in fact, evidence of social progress, just as the automation discourse persuaded union leaders and New Left activists alike that liberation would be won outside the workplace.

Reprise of the Myth of Black Obsolescence

One of the functions of the midcentury automaton discourse, like the myth of Black obsolescence, was to smuggle a degraded definition of work into a vision of human

progress, persuading activists across movements—from radical feminism to the New Left—to accept worsening working conditions as the result, not of the choices of employers, but the supposedly apolitical development of technology.

It was this element of technological determinism that led James Boggs, Detroit auto worker and Marxist Humanist, to marry elements of the myth of Black obsolescence to the possibility of Black liberation. One of the most inspired interpreters of Marx in American history, Boggs provided a compelling explanation for the persistence of racism in the United States and the weakness of socialist politics.⁴¹ Working with Grace Lee Boggs, Boggs argued that the exclusion of Black workers from skilled industrial jobs had relegated them to a “scavenger role in production.”⁴² The creation of this racist, two-tiered working class allowed capital to enmesh white working people in the capitalist order, leading to the persistence of American racism and the continual frustration of a workers’ revolution.

At the same time, Boggs, like the vast majority of his contemporaries, believed that “automation” was a revolutionary technology that would soon abolish human labor in industry and, as was widely accepted at the time, that technological progress inevitably led to the replacement of unskilled and semiskilled jobs with highly-skilled white-collar work. “Automation” he wrote, now meant “the inevitability of the workless society.”⁴³ With the abolition of physical labor, Boggs held, white workers would be elevated from the proletariat to what Daniel Bell called in 1956 the “salariat.”⁴⁴ In the late 1960s, New Left thinkers claimed that this would empower the white-collared and college-educated “new working class” to become the agent of the coming revolution.⁴⁵

These ideas played a crucial role in Boggs’s analysis. On the one hand, if “automation” did everything manufacturers, the press, statesmen, and even union leaders said it would, industrial capitalism would have no more need for the labor of Black Americans, and that would make them “just as expendable as the Jews were in Nazi Germany.”⁴⁶ On the other, it also seemed to anoint them as history’s vanguard, those with the most incentive to topple the reigning social order and touch off revolution. “It is this exclusion,” Boggs had claimed as early as 1963, “which has given the Negro struggle for a classless society its distinctive revolutionary character.”⁴⁷ It was an ironic turn: Black liberation would be premised on the exclusion of Black workers from industry. Boggs’s ideas were enormously influential in the freedom struggle. Huey Newton, co-founder of the Black Panther Party, had largely adopted Boggs’s analysis when he claimed that “automation” had created the material conditions for a revolution of the lumpen-proletariat, led by Black Americans. Point Two of the Party’s “Ten-Point Program” took the automation discourse seriously when it called either for full employment or “a guaranteed income.”⁴⁸ Likewise, when Left sociologist Sydney M. Willhelm considered the possibility of a genocide committed against Black Americans in his “Prospective for Black Obsolescence,” the stakes of the discussion were those named earlier by Boggs.⁴⁹

The element of technological determinism in Boggs’s work, however, meant that he also accepted a definition of industrial labor as essentially fit only for machines. In this he was far from alone. In premising liberation on the argument that Black labor was no longer necessary in industrial society, the proponents of a revolution made materially possible by “automation” wandered into strange intellectual territory.

Because the automation discourse equated freedom with freedom from work, its adherents generally agreed that exploitation was inevitable in a certain “stage” of history. To produce civilization, this argument went, *someone* needed to be exploited, just as Thomas Ewbank had insisted in 1860. Having launched themselves into this new sea of ideas, its proponents ran aground on dangerous reefs of old, for once they argued that work was essentially slave-like, they found themselves writing in defense of slavery itself in principle and, even, historically. Alice Mary Hilton, the left-leaning coiner of the term “cyberculture,” wrote to James Boggs, “Slavery has very little to do with a political system.” Rather, she continued, “slavery is economically conditioned.”⁵⁰ James Boggs sympathized with this argument. “All societies at one time or another have had slaves,” he wrote to Hilton. It was only now, because of “*this* stage of industrial development,” that “maintaining the slavery of jobs” was “no longer necessary.”⁵¹

Boggs was not alone in this rhetorical concession. The defense of slavery as an apolitical and necessary condition of economic development became common practice in midcentury America. Thinkers across the political spectrum arguing in the vein of the automation discourse defended slavery. “Our economic system has come of age,” James Charlesworth, the president of the American Academy of Political Science was happy to proclaim. “If we are not fatuously to conclude that we should work for machine instead of making machines work for us, we must consider all of the little and big iron men as our slaves and ourselves to be entitled to a demigodlike personal development.”⁵² Futurist and left-liberal Robert Theobald wrote, “It is not hyperbole to suggest that we could be the modern Greeks, with mechanical slaves to take the place of human toil.”⁵³ These thinkers concluded that, by way of “automation,” it was now possible to make slavery compatible with true democracy. “Today’s slaves, the machines,” wrote W. H. Ferry, also a left-liberal stalwart of the era, “are creating a new class that democratic theory never wound into its calculus.”⁵⁴ Inspired by the prophecies of house-cleaning robots, Daniel Bell agreed with a report filed by the RAND Corporation that by the year 2100 robots would be available for purchase and could serve as “household slaves.”⁵⁵ Only in the middle of the twentieth century did the master/slave metaphor become an engineering commonplace, the first US patent to use the language filed in 1959.⁵⁶ Joseph Engelberger, developer of one of the first industrial robots, described the usefulness of his invention, the Unimate (then operating on the floor of several General Motors factories): “Since we can’t have slaves or kick around black people anymore, the robot serves that purpose.”⁵⁷ Just as crassly, a 1957 article in *Mechanix Illustrated* began: “In 1863, Abe Lincoln freed the slaves. But by 1965 slavery will be back! We’ll all have personal slaves again, only this time we won’t fight a Civil War over them. Slavery will be here to stay.”⁵⁸

As one might imagine, many wings of the Black freedom struggle refused to think in these terms. A. Philip Randolph, Bayard Rustin, Martin Luther King Jr., as well as Johnnie Tillmon and the leaders of the National Welfare Rights Organization, took a less technologically determinist idea of work, demanding instead “Jobs and Freedom.” While Randolph spoke of “automation” during his address at the March on Washington, acknowledging it as a problem for working people, still he could not accept the degraded notion of embodied human labor for which the discourse was

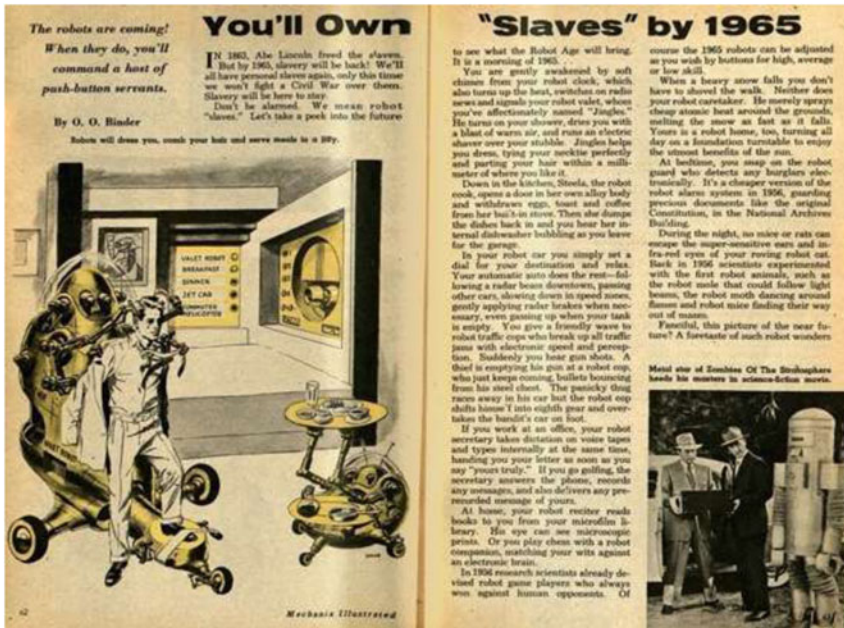


Figure 1. An example of the postwar defense of slavery in principle, from *Mechanix Illustrated*.⁵⁹

so handy a vehicle. His career as a labor organizer had led him to the position that degraded work became better, not through mechanization, but through workers' control. It was for that reason that the motto of the Brotherhood of Sleeping Car Porters read "Service not Servitude."

Likewise, King believed that workers' control, rather than the mechanical abolition of work, was the path to liberation. It was this conviction that allowed him to argue before an assembly of unionizing sanitation workers—people who handled garbage for a living—that "all labor has dignity," so long as the people doing the work also had power over it. When Johnnie Tillmon and the National Welfare Rights Organization called for a guaranteed annual income for mothers with young children, it was in order to recognize the value of labor that, though essential, often went completely uncompensated. That was why she called on the president of the United States to issue "a proclamation that women's work is *real* work," and for the federal government to pay women for it. This was a far cry from the essentially degraded notion of physical labor implied in both the myth of Black obsolescence and the automation discourse. Necessity in and of itself did not produce oppression, or so these thinkers held. Hierarchy did. The fault lay with politics, not nature.⁶⁰

Unemployment and the False Promise of Job Training

Despite the many exaggerations of the midcentury automation discourse, Boggs and Newton had good reason to worry about rising unemployment among Black Americans. Surely enough, by the mid-1950s chronic under- and unemployment

had become the perennial scourge of Black industrial laborers it would remain for the rest of the century. Between 1960 and 1964, eighty-thousand Black manufacturing workers, 8 percent of the total, lost their jobs in New York. Job loss for Black industrial workers swept the Midwest. Over the same period, Chicago, Detroit, and Cleveland each shed an average of ten thousand Black manufacturing employees.⁶¹ Although with deindustrialization both Black and white workers suffered job loss, the unemployment rate remained consistently higher for Black workers. While the unemployment rate for all workers in Detroit in 1970 came in at about 6.9 percent, for Black workers it was 9.8. In 1980, unemployment for Black workers in Detroit was double the average unemployment rate in the city.⁶²

Real though the scourge of unemployment was for Black workers in the second half of the twentieth century, and though job loss in many workplaces followed technological changes to the labor process, that job loss was not a simple story of technological determinism. It causes could not simply be reduced to “automation,” but were instead manifold and complex: the de-industrialization of northern cities, crises in profitability, recession, incipient globalization, the racist organization of the labor market, and, sure enough, in some industries, mechanization. In some cases, what managers called “automation” indeed replaced workers with mechanical action. But often enough, the postwar mechanization of labor reduced the number of jobs in a shop while also increasing the intensity of human labor that remained, undercutting the supposed “labor-saving” powers of the new machines by speeding up those still on the line, or as one critic put it, the “new automation speedup.” While the speedup touched all line workers, across the country it hit Black industrial workers the hardest. In the automobile industry, the sector that gave birth to the word “automation,” members of the League of Revolutionary Black Workers claimed that for the Black worker, “the pressure of production never ceases. . . because of the super exploitation of black labor, profits in autos have soared.”⁶³

For the most part, lawmakers answered the prospect of increased unemployment with half-measures. Rather than the legal right to a job or a guaranteed basic income, the Kennedy and Johnson administrations answered with a program of vocational training, passed under the banner of the Manpower Development and Training Act of 1962 (MDTA). In providing training but not paid jobs, the program’s designers presumed that the cause of rising unemployment lay not with the structure of the economy itself but rather the personal shortcomings of workers. Because of a lack of education and a “culture” of poverty, the argument went, in a rehash of the myth of Black obsolescence, individuals were ill-equipped to take part in industrial society. After all, had not the boosters of “automation” promised the coming of a raft of highly-skilled, technical, well-paying jobs? Alas, the inflated claims of the automation discourse did not become reality, and the jobs failed to appear at their appointed hour. Instead, individuals received training only to remain unemployed, but now with new and equally unwanted skills. A million people took part in the MDTA and six hundred thousand completed a full course of vocational training under its auspices, yet, as a 1968 report concluded, “There is no evidence that the unemployment rate is appreciably lower than it would have been had the program never existed.”⁶⁴

Some organizations in the Black freedom movement participated enthusiastically in government-sponsored vocational training programs. White craft workers had excluded Black apprentices from craft work like construction and plumbing, and organizations like the National Urban League used the MDTA to secure Black Americans access to alternative apprenticeship programs.⁶⁵ Still, this was not an answer to the “automation speedup” of semiskilled industrial workers that led to both increasing hardship on the job and rising unemployment.

Take for example the meatpacking industry, which employed a particularly large number of Black workers, and where a constellation of changes both technical and organizational undermined the position of unionized line workers. Companies decentralized production away from the union strongholds of the urban North and placed factories in the rural right-to-work South. Apart from a few highly-mechanized pieces of apparatus (like the Anco Can Pak Puller that aided in skinning carcasses), most of the technical changes to the labor process came in the form of the introduction of power tools with which workers could butcher animals. At the time, observers called this plethora of innovations, “automation.” By the last quarter of the century these changes would culminate in the destruction of the United Packing Workers of America (UPWA). They would not, however, result in the substitution of human labor with machines. Well into the early twenty-first century, meatpacking remains a labor-intensive and often physically-grueling industry that employs often the most marginalized workers.⁶⁶

In 1959, the leadership of the UPWA, along with the Amalgamated Meat Cutters and Butcher Workmen, bargained with the meatpacking company Armour to establish the Armour Automation Committee. Functioning under the widely held premise that technical changes to the labor process would replace semiskilled industrial labor with highly-skilled technical jobs, the committee was to offer positions at new plants or vocational training in another trade entirely for workers supposedly laid off by new machines.⁶⁷ The program was not a success. Ralph Helstein, president of the UPWA, called it a “façade of humaneness and decency that would conceal a ruthless program of mass termination of employees of long service and cynical manipulation of the natural fears of its employees to accomplish drastic cuts in wages and working conditions.”⁶⁸ The Bureau of Labor Statistics found that the promise of vocational training did little to offset the hardship faced by laid-off workers. When Armour shuttered a plant and moved it halfway across the country, the workers who remained could not count on the spontaneous generation of thousands of “good” jobs. The result, in the words of the bureau, was that “no amount of contact or promotion is likely to produce any significant number of jobs in a period when unemployment is steadily rising.” And for those who did manage to find jobs, they were by no means more highly skilled or better paying than the ones they had lost. Rather, these workers were “likely to suffer a substantial drop in earnings.” The bureau found that this was especially true for female workers, workers of color, and above all Black workers. “In such a period [of high unemployment],” said the Bureau, “discrimination in hiring on the basis of age, sex, and race becomes more evident.”⁶⁹ The fault lay not in the stars of individual workers. The mere act of vocational training without an income or job guarantee did little, perhaps nothing to compensate Black workers when the source of the trouble was management’s decision to

decentralize production and speed up those employees who remained. “What you were doing,” Helstein related bitterly, “was training people so that they could be unemployed at a higher level of skill, because they couldn’t get jobs.”⁷⁰

Conclusion

It should therefore give us pause that as recently as 2019, McKinsey, in its report on “The Future of Work in Black America,” suggested helping Black Americans “through shifting [their] education profiles to align with growing sectors, engaging companies and public policy makers in developing reskilling programs, and redirecting resources to ease the transition as automation changes the landscape for African American workers.” In recent years, newly laid-off workers have spoken of this derisively as the “learn to code” plan, where, in exchange for hours of unpaid auto-didacticism, they are asked to trust that jobs will spontaneously appear as they never have before in the long history of both publicly and privately funded vocational training.⁷¹

As for McKinsey’s plan to “strengthen local economies,” the report recommends that rather than a guaranteed income or direct jobs-creation program, the best way to help unemployed Black workers is through the establishment of tax-shelter “opportunity zones” where tax breaks will “direct capital to underserved areas, many of which are African American communities.” As it happens, the Internal Revenue Service is quick to assure those interested in taking advantage of these zones that a business owner is by no means required to “live, work, or have an existing business” in one of these zones in order to enjoy a lower tax rate. “All you need to do is invest the amount of a recognized eligible gain in a QOF [Qualified Opportunity Fund] and elect to defer the tax on that gain.” This, evidently, is the managerial class’s best, most direct plan of action to improve the fortunes of Black working people in the United States of America—to lower public investment in their communities.⁷²

Despite the claims that “automation” had rendered Black labor obsolete, Black workers remained essential in the United States well into the twenty-first century. The myth of Black obsolescence had served as a forerunner of the automation discourse, and the two have long since become inextricably entangled. The myth provided a rhetorical template for the practice of blaming workers themselves, rather than the owners of capital, for the exploitation of labor. As with the automation discourse, the myth helped to hide discursively the presence of human labor in the industrial economy.

This was self-evidently the case in the meatpacking industry, as discussed above. Despite claims by management since the 1950s that “automation” would do away with human labor in the industrial slaughter and butchering of animals, meatpacking remains, to this day, labor-intensive. “Line speed varies depending on the type of product,” said a senior official at Tyson Foods in the early 2000s. “Line speed mainly regards evisceration lines, and that is regulated by the USDA [United States Department of Agriculture]. The historical standard was 70 [animals] per minute, but it has increased with automation to 120 per minutes. It’s all automated now; there is much less hand work. We are constantly trying to automate.” While indeed line speeds have most certainly increased, by no means is this work “automated.”



Figure 2. As part of downtown Detroit's ongoing 'revitalization,' an advertisement exhorting passersby to learn to code. Author photograph, January 10, 2022.⁷³

Speed up of human labor has remained the watchword of industrial slaughter and butchering. According to Human Rights Watch, by 2004, meatpacking was one of the most dangerous jobs in the United States. The chief source of the dangers posed by the job, the report found, was, "line speed." Without apparently noting the contradiction, the report read, "The sheer volume and speed of slaughtering operations in the meat and poultry industry create enormous danger. Workers *labor* amid

high-speed *automated* machinery moving chickens and carcasses past them at a hard to imagine velocity: four hundred head of beef per hour, one thousand hogs per hour, thousands of broilers per hour, all the time workers pulling and cutting with sharp hooks, knives, and other implements.⁷⁴ The work was “automated,” and yet grueling physical work remained.

As the meatpacking industry was progressively de-unionized and the work degraded, owners lowered pay and re-generated the labor. In addition to the increasing number of immigrant and undocumented laborers hired in the business, in the last quarter of the twentieth century, meatpacking workers were increasingly Black and female. LaGuana Gray’s study of Black poultry workers in the South testifies to the “phenomenal speed up” of this work. “Not too many white women are going to get dirty the way they [management] expected us to,” recalled Trinity Mays, a Black woman who worked at the El Dorado meat processing plant in Arkansas at the end of the last century. “They act like [white women] wouldn’t be able to stand it, but if they can’t stand it, how can we? It tells you what they think about us.” According to Vivian West, also a poultry worker, “The machinery made the jobs harder because the machines stay [broken] a lot. Then, in the process of running the line so fast, trying to keep up with the machines, your joints and things would get tired and hurt.” West continued, “They don’t expect the human body to break down.” Said Bella Dawes, another worker, also Black and also a woman: “You ain’t nobody. You just a machine getting done what they want done.”⁷⁵

Clearly, Bella Dawes was somebody, and in terms both economic and humane, somebody important. Regardless of the claims of employers and masters for the better part of two hundred years, Black and a woman, Dawes was also an essential industrial worker. Despite the myth of Black obsolescence, Bella Dawes was neither a machine nor an insensible piece of mechanism. She was a human being, and she was working. At just the moment managers claimed she was lost in the backwash of technological progress, her labor remained absolutely crucial to that progress. In fact, it was because her labor and the labor of other Black Americans was so valuable that managers claimed she had little to offer industrial civilization. To recognize her contribution would have meant paying her far more, in both dollars and respect, than the blind pursuit of profit would allow. This was the automation discourse; this was the myth of Black obsolescence.

Notes

1. This article has benefited from the insight of many readers, and I would like to thank Aaron Benanav, Dwjuan Frazier, Nick Juravich, Alice Kessler-Harris, Lou Resnikoff, Seth Rockman, Naomi Williams, the DC Labor History Seminar, the Contemporary History Chair Group at the Rijksuniversiteit Groningen, and the two anonymous reviewers for *ILWCH*.
2. Pablo Illanes, Susan Lund, Mona Mourshed, Scott Rutherford, and Magnus Tyreman, “Retraining and Reskilling Workers in the Age of Automation,” McKinsey and Company, January 22, 2018. Accessed February 5, 2021: <https://www.mckinsey.com/featured-insights/future-of-work/retraining-and-reskilling-workers-in-the-age-of-automation>.
3. Kelemwork Cook, Duwain Pinder, Shelley Stewart III, Amaka Uchegbu, and Jason Wright, “The Future of Work in Black America,” McKinsey and Company, October 4, 2019. Accessed February 5, 2021: <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-in-black-america>.

4. For a helpful corrective on the state of “automation” in the early twenty-first century, see: Aaron Benanav, *Automation and the Future of Work* (New York: Verso, 2020).
5. Shawn Sprague, “The U.S. productivity slowdown: an economy-wide and industry-level analysis,” *Monthly Labor Review*, U.S. Bureau of Labor Statistics, April 2021. Accessed April 21, 2021: <https://doi.org/10.21916/mlr.2021.4>.
6. That presumption is also common among historians of technology. Take for example Donald Holley’s claim that the overthrow of Jim Crow first required the mechanically-produced obsolescence of Black labor: “The South could not break the grip of this system until the inefficient structures themselves were swept away, but that could not take place without mechanization, which in turn required a dramatic technological breakthrough. . . . The First Great Emancipation freed the slaves. The Second Great Emancipation [the invention of the mechanical cotton picker] freed the Cotton South from the plantation system and its attendant evils—cheap labor, ignorance, and Jim Crow discrimination.” In this analysis, short staple cotton, it would seem, not white supremacy, bears responsibility for constructing the legal regime of Jim Crow. Donald Holley, *The Second Great Emancipation: The Mechanical Cotton Picker, Black Migration, and How They Shaped the Modern South* (Fayetteville, AR, 2000), xiv. I am grateful to Barbara J. Fields, in her writing and her teaching, for modeling this way of criticizing biologically determinist interpretations of American racism. See also, Karen E. Fields and Barbara J. Fields, *Racecraft: The Soul of Inequality in American Life* (New York, 2012).
7. Raya Dunayevskaya, *Marxism and Freedom: From 1776 Until Today* (New York, 1958), 268–69. Italics original.
8. “Black Workers Protest UAW Racism March on Cobo Hall,” 1969, File 24, Box 1, Detroit Revolutionary Movements, Acc #874, Walter P. Reuther Library.
9. Jones, *The Tribe of Black Ulysses*, 12.
10. Jason Resnikoff, “The Paradox of Automation: QWERTY and the Neuter Keyboard,” *Labor* 18, 4 (December 2021): 9–39.
11. Jason Resnikoff, *Labor’s End: How the Promise of Automation Degraded Work* (Urbana, IL, 2021). In part, this book seeks to explain why the automation discourse proved to be so persuasive across the political spectrum in the postwar period.
12. On the industrial, “bare life,” definition of work: Karl Polanyi, *The Great Transformation: The Political Economic Origins of Our Time* (Boston, 1957, ca. 1944); Hannah Arendt, *The Human Condition: A Study of the Central Dilemmas Facing Modern Man* (Chicago, IL, 1958); Michel Foucault, trans. Michael Sonenscher, *The History of Sexuality, Volume I: An Introduction* (New York, 1990, ca. 1976), part V.
13. Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Medford, MA, 2019), 323. N. D. B. Connolly, “The Strange Career of American Liberalism,” in *Shaped by the State: Toward a New Political History of the Twentieth Century*, Brent Cebul, Lily Geismer, and Mason B. Williams, eds., (Chicago, IL, 2019), 86. On Black workers first experiencing new forms of degradation that employers would later apply more broadly, see Jacqueline Jones, *American Work: Four Centuries of Black and White Labor* (New York, 1998), 327.
14. Joe William Trotter Jr., *Workers on Arrival: Black Labor in the Making of America* (Oakland, CA, 2019), 1 (on skilled labor in the colonial period), 21–22.
15. Thomas Ewbank, *Inorganic Forces Ordained to Supersede Human Slavery* (New York, 1860), 10, 6, 16, 24. The pamphlet was an elaboration of a talk Ewbank gave before the American Ethnological Society. The *New York Daily Tribune* called it, “the production of an acute and original thinker.” See, “Literary,” *New York Daily Tribune*, September 22, 1860, 6. John C. Calhoun was the first Southerner of consequence to introduce the argument that every “wealthy and civilized community” in history had lived “off the labor of another.” Richard Hofstadter, *The American Political Tradition and the Men Who Made It* (New York, 1948), chapter 4 “John C. Calhoun: The Marx of the Master Class,” 87.
16. W. Carroll, “Labor-Saving Machines,” *The Liberator* (December 19, 1856); “What Are We Going to Make?” *The Atlantic Monthly* 2, 1 (June 1858); both quoted in a remarkable, unpublished undergraduate thesis: Peter Arthur Kentros, “Bodies of Iron, with Souls of Steam: The Slave and the Machine in Antebellum America,” (undergraduate senior thesis, Brown University, April 4, 2014). I would like to thank Seth Rockman for sharing a copy of Kentros’s work with me.
17. Oliver Evans, “Article I: Of Steam,” *Abortion of the Young Steam Engineer’s Guide* (Philadelphia, PA, 1805).
18. Edward Everett, *Orations and Speeches on Various Occasions*, sixth edition (Boston, 1860), II, 244–45, quoted in, David Brion Davis, *Slavery and Human Progress* (New York, 1984), 232–3.

19. Joseph Henry quoted in Perry Miller, *The Life of the Mind in America: From the Revolution to the Civil War* (New York, 1965), 308.
20. John G. Whittier, "Justice and Expediency: or, Slavery Considered with a View to Its Rightful and Effectual Remedy, Abolition," *Anti-Slavery Reporter*, 1, 4 (September 1833): 59; Attorney General James Speed quoted in Robert J. Steinfield, *The Invention of Free Labor: The Employment Relation in English & American Law and Culture, 1350-1870* (Chapel Hill, NC, 1991), 181.
21. "Machinery versus Muscle," *Scientific American* 8, 10 (March 7, 1863): 160. Quoted in Kentros, "Bodies of Iron with Souls of Steam," 24.
22. Wendell Phillips, "Wendell Phillips on the Election: A General Onslaught upon Lincoln, Seward, and People in General," *The New York Times*, November 9, 1860. Quoted in Kentros, "Bodies of Iron with Souls of Steam," 34.
23. George Opdyke, *A Treatise on Political Economy* (New York, 1851), 329–30.
24. Ewbank, *Inorganic Forces*, 15–16, 27. On the renewal of the colonialization movement in the late 1850s: Eric Foner, *The Fiery Trial: Abraham Lincoln and American Slavery* (New York, 2010), 123–31.
25. On ideas of human obsolescence in circulation since the turn of the nineteenth century, see: Steven Stoll, *The Great Delusion: A Mad Inventor, Death in the Tropics, and the Utopian Origin of Economic Growth* (New York, 2008).
26. Jones, *American Work*, 14–15. On Black and white workers working in the same industry, although along segregated lines, see, for example, Jones, *The Tribe of Black Ulysses*, 92–5.
27. August Meier, *Negro Thought in America, 1880-1915: Racial Ideologies in the Age of Booker T. Washington* (Ann Arbor, MI, 1988), 88; Booker T. Washington, "The Fruits of Industrial Training," *The Atlantic*, October 1903.
28. Elizabeth D. Esch, *Color Line and the Assembly Line: Managing Race in the Ford Empire* (Oakland, CA, 2018), 94, 97.
29. Trotter, *Workers on Arrival*, 92.
30. David R. Roediger and Elizabeth D. Esch, *The Production of Difference: Race and The Management of Labor in U.S. History* (Oxford, 2012), 190–1.
31. Robin D. G. Kelley, "We Are Not What We Seem: Rethinking Black Working Class Opposition in the Jim Crow South," *Journal of American History* 80, 1 (June 1993), 101. Tera W. Hunter, *To 'Joy My Freedom: Southern Black Women's Lives and Labors after the Civil War* (Cambridge, MA, 1997), in particular chapter 4. Lindsey Elizabeth Dayton, "From 'Heavy Iron Blues' to 'I Pay My Union Dues': New York City's Black Women Laundry Workers in the 1930s," (unpublished Master's Thesis, Sarah Lawrence College, 2009).
32. Roediger and Esch, *The Production of Difference*, 190.
33. David E. Nye, *America's Assembly Line* (Cambridge, MA, 2013).
34. Hosea Hudson, *Black Worker in the Deep South: A Personal Record* (New York, 1972), 29.
35. Although not exclusively in the North. William Powell Jones, "Simple Truths of Democracy: African Americans and Organized Labor in the Post-World War II South," in *The Black Worker*, Eric Arnesen, ed.; Andrew E. Kersten and Clarence Lang, eds., *Reframing Randolph: Labor, Freedom, and the Legacies of A. Philip Randolph* (New York, 2015).
36. Jones, *American Work*, 344–8.
37. Robert Korstad and Nelson Lichtenstein, "Opportunities Found and Lost: Labor, Radicals, and the Early Civil Rights Movement," in *The Black Worker*, Arnesen, ed., 241.
38. D. S. Harder, "Address Before the Quad-City Conference on Automation at the Davenport Masonic Temple, Davenport, Iowa, on August 27, 1954," File 12, Box 45, UAW President's Office: Walter P. Reuther, Acc #261, Walter P. Reuther Library.
39. John Diebold, *Automation: The Advent of the Automatic Factory* (New York, 1952), 2.
40. Herbert Marcuse, *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (Boston, 1968, ca. 1964), 4, italics original.
41. Stephen M. Ward, *In Love and Struggle: The Revolutionary Lives of James and Grace Lee Boggs* (Chapel Hill, NC, 2016). Also, see the special issue of *Souls* 13, 3 (July–September 2011) on James and Grace Lee Boggs, in particular, Cedric Johnson, "James Boggs, the 'Outsiders,' and the Challenge of Postindustrial Society," 303–26.
42. James Boggs, *Racism and the Class Struggle: Further Pages from a Black Worker's Notebook* (New York, 1970), 155.
43. James Boggs, *American Revolution*, 57–8.

44. Daniel Bell, *Work and its Discontents* (Boston, 1956), 49–53.
45. David Gilbert, Robert Gottlieb, and Gerry Tenney, “The Port Authority Statement,” (1967) accessed April 19, 2019: <https://archive.org/details/PortAuthorityStatement>; Ed Jahn, “Automation – III,” *New Left Notes*, March 13, 1967.
46. *Ibid.*, 16–17.
47. James Boggs, *The American Revolution: Pages from a Negro Worker’s Notebook* (New York, 1963), 85–86.
48. “Speech Delivered at Boston College: November 18, 1970,” in *The Huey P. Newton Reader*, Huey P. Newton, ed. (New York, 2002), 166–7. “The Ten-Point Program,” October 15, 1966. Marxist History Archive, 2001, accessed June 6, 2021: <https://www.marxists.org/history/usa/workers/black-panthers/1966/10/15.htm>.
49. Sidney M. Willhem, *Who Needs the Negro?* (Garden City, NY, 1971), 271, 287.
50. Alice Mary Hilton to James Boggs, August 31, 1963, File 17, Box 1, James and Grace Lee Boggs Collection, Acc #1342, Walter P. Reuther Library, Wayne State University.
51. James Boggs, “A paper presented to the Alliance For Jobs Or Income Now,” December 5, 1964, File 13, Box 3, James and Grace Lee Boggs Collection, Acc #1342, Walter P. Reuther Library, Wayne State University (underlining original).
52. James Charlesworth, “A Comprehensive Plan for the Wise Use of Leisure,” in James Charlesworth, ed., *Leisure in America: Blessing or Curse?* (Philadelphia, PA, 1964), 35–36.
53. Robert Theobald, *Free Men and Free Markets* (New York, 1963), 24–25.
54. Quoted in James A. Ward, *Ferrytale: The Career of W. H. “Ping” Ferry* (Stanford, CA, 2001), 91.
55. Daniel Bell, “The Study of the Future,” *The Public Interest* (Fall 1965): 127–28.
56. Ron Eglash, “Broken Metaphor: The Master-Slave Analogy in Technical Literature,” *Technology and Culture* 48, 2 (April 2007): 360–69.
57. Roger Lind, “The Roberts Are Coming, The Robots Are Coming,” *Oui: For the Man of the World* 3, 2 (February, 1872): 40. I would like to thank Salem Elzway for sharing this with me.
58. O. O. Binder, “You’ll Own ‘Slaves’ by 1965,” *Mechanix Illustrated* (January 1957): 62. For another treatment of this image, see Benjamin, *Race After Technology*, 39. On the connection between slavery and robots, see also Bob Johnson, “Energy Slaves: Carbon Technologies, Climate Change, and the Stratified History of the Fossil Economy,” *American Quarterly* 68, 4 (December 2016): 955–79; and Justin Abnet, *The American Robot: A Cultural History* (Chicago, IL, 2020), chapter 5.
59. *Ibid.*
60. On the March on Washington, see William P. Jones, *The March on Washington: Jobs, Freedom, and the Forgotten History of Civil Rights* (New York, 2013); on Martin Luther King Jr.’s economic thought, see Michael K. Honey, *To The Promised Land: Martin Luther King and the Fight for Economic Justice* (New York, 2018). Motto of the Brotherhood of Sleeping Car Porters quoted in Andrew E. Kersten and Clarence Lang, eds., *Reframing Randolph: Labor, Freedom, and the Legacies of A. Philip Randolph* (New York, 2015), 21. Martin Luther King Jr., quoted in Cornel West, ed., *The Radical King* (Boston, 2015), 245–52. Johnnie Tillmon quoted in Premilla Nadasen, *Welfare Warriors: The Welfare Rights Movement in the United States* (New York, 2005), 165.
61. Jones, *American Work*, 358–9.
62. Thomas J. Sugrue, *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* (Princeton, NJ, 1996), 151.
63. “What’s Next for Labor?” *News and Letters* II, 17 (Tuesday, April 30, 1957): 8. “Black Workers Protest UAW Racism March on Cobo Hall,” 1969, File 24, Box 1, Detroit Revolutionary Movements, Acc #874, Walter P. Reuther Library. For an account of a similar phenomenon, this time among telephone operators, see Venus Green, *Race on the Line: Gender, Labor, and Technology in the Bell System, 1880-1980* (Durham, NC, 2001). On industrial job loss for Black workers in the South, see Jones, *Tribe of Black Ulysses*, 185–6.
64. Garth Mangum, *MDTA: Foundation of Federal Manpower Policy* (Baltimore, MD, 1968), 2.
65. M. T. Puryear, “Automation and the Retraining of Negro Workers,” September, 1962, File: “National Urban League,” Box 1, A1.23, RG 369, National Organizations Subject Files, 1963–1965, Records of The Employment and Training Administration, Office of Manpower, Automation, and Training, National Archives and Records Administration, College Park, Maryland; “70 Persons in Job Training,” *Self-Determination*, The Woodlawn Organization Newsletter, Volume 1, No. 13, August 26, 1964, 1, File: “Region VIII – Chicago, Illinois, The Woodlawn Organization, Chicago, News Clippings, Box 9, A1 25, RG 369, Field Project Case Files 1963–1965, Records of The Employment and Training

Administration, Office of Manpower, Automation, and Training, National Archives and Records Administration, College Park, Maryland.

66. Roger Horowitz, *"Negro and White, Unite and Fight!" A Social History of Industrial Unionism in Meatpacking, 1930-90* (Urbana: University of Illinois Press, 1997), 248–55.

67. Cyril Robinson, *Marching With Dr. King: Ralph Helstein and the United Packinghouse Workers of America* (Santa Barbara, CA, 2011), 139.

68. Horowitz, *"Negro and White, Unite and Fight!"* 256; Halpern, *Down on the Killing Floor: Black and White Workers in Chicago's Packinghouses, 1904-1954* (Urbana, IL, 1997), 247–50.

69. "Progress Report of Armour's Tripartite Automation Committee," *Monthly Labor Review* 84: 8. Published by the Bureau of Labor Statistics, US Department of Labor, August 1961, 851–57; "The Fort Worth Project of the Armour Automation Committee," *Monthly Labor Review* 87, 1. Published by the Bureau of Labor Statistics, US Department of Labor, January 1964, 56–57.

70. Helstein quoted in: Horowitz, *"Negro and White, Unite and Fight!"* 256. On a similar phenomenon in the 1980s, Gordon Lafer, *The Job Training Charade* (Ithaca, NY, 2002).

71. Daniel Greene, *The Promise of Access: Technology, Inequality, and the Political Economy of Hope* (Cambridge, MA, 2021); Basel Farag, "Please Don't Learn to Code," *TechCrunch*, May 10, 2016. "The line between learning to code and getting paid to program as a profession is not an easy line to cross," writes one professional programmer. "Really. It took me more than a year of self-taught study before I got a freelance gig. Even then, the pay was poor." Accessed June 5, 2021: <https://techcrunch.com/2016/05/10/please-dont-learn-to-code/>.

72. Cook et al., "The Future of Work in Black America"; "Opportunity Zones Frequently Asked Questions," Internal Revenue Service, December 15, 2020. Accessed February 5, 2021: <https://www.irs.gov/credits-deductions/opportunity-zones-frequently-asked-questions>. On recent critical accounts of more contemporary job training schemes: Jeffrey Selingo, "The False Promises of Worker Retraining," *The Atlantic*, January 8, 2018. Accessed June 3, 2021: <https://www.theatlantic.com/education/archive/2018/01/the-false-promises-of-worker-retraining/549398/>.

73. Courses at this particular concern cost upward of \$11,000. "While we don't offer a job guarantee, we do promise to provide the best in the business career service and coaching." Accessed January 11, 2022: <https://www.grandcircus.co/faq/>.

74. Lance Compa, "Blood, Sweat, and Fear: Workers' Rights in U.S. Meat and Poultry Plants," *Human Rights Watch*, 2004, 37, 33. Emphasis added. Accessed March 25, 2021: <https://www.hrw.org/sites/default/files/reports/usa0105.pdf>.

75. Laguana Gray, *We Just Keep Running the Line: Black Southern Women and the Poultry Processing Industry* (Baton Rouge, LA, 2014), 2, 110, 111, 87.