## Working on the Line by Michael J. Bell

The American public has been sold a new vision of work and working in the last few years. We have been told that America is a nation moving away from its industrial base and that modern Americans are rapidly moving toward a future in which the vast majority will work with their minds, not their hands. In this new America, we are told, our future will come from our ability to manipulate information and to manufacture ideas. No longer will Americans have to strain and sweat in factories or on assembly lines to do repetitious and difficult jobs. That kind of work will be done faster and more efficiently by machines. America will become an information power, and its greatness, once derived from factories, will now come from laboratories and services.

Like some stereotypes this new picture contains a kernel of truth. Work in America is changing and with that change are coming new industries and new ways of working. Unfortunately, stereotypes most often obscure other equally important realities; in their haste to explain one thing, stereotypes go too far in their rejection of another. To be sure, factory and assembly line jobs can be dangerous, difficult, and boring; any task that needs to be repeated every sixty seconds, sixty times an hour for an eight hour shift could be little else than difficult and at times boring, but such jobs can also be challenging. And the millions of workers who have met and withstood that challenge deserve to be seen as more than mindless machines.

A case in point is the automobile industry. No job has been more stereotyped by this new understanding of work than the automobile assembly line or the automobile parts factory. These have become classic examples of the way a new working America is supposed to rescue the old. We know that the work of making cars is hard, that the individual tasks can enervate even the strongest with their endless repetition, and that in some way they would be better done by machines than by people. Our revulsion of repetitious work fuels our rejection of the labor of the assembly line or the parts factory. And our hopes for work in America are connected with the belief that American cars could once again dominate the world's marketplace if only the robots could take over the tasks now performed by men and women.

Working on the assembly line or in the parts factory demands much more human inventiveness and allows for much more creativity than most of us would imagine. The inventing starts from the moment one is put to work. One Lordstown employee described training at his plant: "[The worker] is brought into the plant and his orientation session ends and starts with his papers on insurance and his assignment to a foreman who immediately puts his warm body on the [assembly] line." John\* told me of his training:

Well, the relief man trained me . . . I think for one day. In fact, I'm not sure how the relief man was free for that day. It may

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<sup>\*</sup> This, and all other workers' names in this article are pseudonyms.

have been that another operator who sort of knew the job . . . but not very well, sort of watched me the next two days, worked with me, got me out of trouble and did part of the job when I got into trouble.

The worker must begin his or her job, then, by discovering a process by which the work is to be accomplished. "No one can explain anything. None of this is written down," John said. "It's in the mind of the people who do the job."

What exists at the beginning, therefore, is the clear demand that the worker invent the means to do the task at hand or face the possibility of losing a job almost before getting started. In John's case as for most others, this meant being creative in the most technical sense. His task was to install windshield wiper motors: one every fifty-seven seconds. He would turn his body and let it fall backwards into each car as it passed his work station, pick up the motor from the transmission housing, screw it into place under the dashboard using a screwgun, and then arise from the finished car to prepare for the next vehicle.

From the beginning he worked alone. "Most people can't tell you how they do their jobs. They just say do this. Or, they do it for you while you're standing there. But they do it so fast that you can't see what they did." The individual elements of the work process, then, were his. He chose what to do. He worked out the separate tasks and their arrangement, the pieces, tricks, and techniques by which each motor got installed—and always as the cars moved relentlessly down the line. Anyone probably can figure out how to do something in less time than a minute if one has more than a minute to think. But John, like most line workers, had no quiet contemplation, no instruction on a stationary car later translated to a moving line. He installed his motors at full speed and did all of his thinking and acting within the small cycle of a world that started, finished, and started again before sixty seconds had passed.

For workers like John the invention of a job also includes finding or manufacturing some of the tools and the techniques needed to do the work. John's job required that he lay backwards over the doorsill frame to reach to where the motor belonged, but without some kind of padding that sill is sharp enough to cut through clothing and skin. His solution was to fashion a pad out of sound-absorbing roof material secured to a piece of cardboard with black electric tape. This could be placed over the sharp edge so that when he lay down, his legs were protected. Likewise, to properly deploy screws, screwgun, protective pad, and motor, he had to figure out a way to cup and fold one hand to hold both motor and screws, while operating the screwgun with his other hand.

All right. So we are now standing here with our pad in our right hand, on the hip. Gun held in the right hand . . . hose trailing down back up the line toward Rochelle's job. [The next job to be finished after John's.] Ah, so you drape the gun here. [Cradled in the crook of the left arm.] Scoop first the three black screws. The three screws which you will use to secure the left-hand wiper arm, hold them with the fingers over them so they're cupped like that. [The three screws are placed across the lowest joint where the fingers meet the palm and the fin-





gers are then folded over the screws.] Then scoop up four gold screws . . . [and] . . . fold the hand complete. [The four screws are placed in the palm of the hand and the curled fingers are folded against them so that they are trapped between the palm and the fingernails.]

Other workers have come up with equally ingenious solutions in similar situations. The *Detroit Free Press* recently reported that workers on another line had discovered, they claimed due to the arrival of women workers, that salad tongs—again not a typical managerial or engineering response—were the ideal tool for a job that no one had been able to figure out how to do effectively.

Once invented, line and production jobs need to be practiced and perfected. John, or any of the other workers engaged in line work, did not get the job right the first time, even if he did it correctly, and he did not stop improving his work processes just because he had figured out how to do his job. None of the workers I have interviewed was concerned with merely getting his or her job done. All were interested in control and in the relative freedom and power that such control offered. "When I was really flying," John said,

I could do that job in a little under fifty seconds. My best all-time time, there were a few times . . . a couple of times I was really flying. I must have been close to forty . . . that felt so good. It was almost transcendent . . . a kind of mastery.

John did not choose to function as an automaton, and he did not try to be a drudge. Rather, he worked to build a rhythm, to develop a set of "tricks" that provided him with a means of ordering and organizing his work process so that he could move beyond the

Pontiac Tech IV "double e" assembly line allows an engine to stop at each work station along the line, enabling the operator to control the work unit. Photo courtesy Motor Vehicle Manufacturers Association Archive

Assembly of transmission and clutch housing for the engines of heavy diesel truck bodies. Photo courtesy Motor Vehicle Manufacturers Association Archive

point where he had to "see" or consciously "know" a step before he could undertake it.

Working became more than just his job: it was his routine; it was where he could "fly" and by "flying" attain some power over the expectations that came with every car on the line.

You see, you gotta think of the job in terms of time. Find enough time to do the job. You got to get out of the car and leave the car done. The collective term for this is 'getting up to speed.' In the first few months, it was really touch and go whether I would be out of the car by the time I reached a certain box of stock. And, Rochelle would be coming at me with two Yale locks. I guess the point from which you emerge is sort of an index of how well you're doing. It's good work if you work ahead of your station and not if you're behind.

For John "getting up to speed" was a way of getting out from under corporate and engineering expectations. It was his formal announcement that he knew what good work was and how to do his job so as not to disrupt the next worker down the line. Admittedly, control of ten, fifteen, even seventeen seconds is not an enormous amount of time when counted against the sixty minutes of installations that happen every hour of every day on the job. Still, by asserting his presence where it is not expected and by commanding for himself what he ordinarily ought not to have, John received that which by company standards he should not have. Ford paid John money to build its cars, but when he earned some time for himself, John got what good work should always bring but too often does not in modern industrial settings: he got to keep some of the surplus value of his labor; he got due wages.

John's case is not unique. Folklorist Yvonne Lockwood, in her studies of automobile workers, has reported of a production welder who, bored with his job, sought diversion in the ten-second intervals between cars by welding together spare nuts, bolts, and scrap metal, transforming these materials into sculptures of small animals with crinkled hides and rumpled hair. She has also reported of a female worker who has held the same job for eight years at an auto plastics plant, punching holes and assembling tiny metal parts for automobile dashboards, occasionally working with her eyes closed to add a challenge, and using the "found time" once her daily production is made to make jewelry from the minute metal parts with which she works; of welders and metal workers making chess sets, miniature tools, miniature automobiles, knives, and belt buckles; of a carpenter/wood carver whittling wooden chains and toys from leftover wood scraps when the "real" work is slow; and of a worker running an ejection molding machine and molding the soft plastic into abstract shiny black shapes in - between his production of parts.

What, then, is to be made of all this? Most importantly, we need to acknowledge the real creativity of line and production workers. These workers are not mere unskilled, unthinking laborers doing what they are told, human robots waiting to be replaced by better and faster machines. They have the potential, and are often forced by conditions, to participate analytically in the most fundamental processes by which the line is made to operate. John, and others

like him, are the front and bottom line in the transformation of an abstract product into a real machine. Designers and engineers may invent and plan automobiles, but the workers on the line make the parts and the cars. They invent the steps out of which the jobs are constructed. They develop and draw together the particular "tricks" and techniques that make the job go. They think, plan, practice, and perfect the process by which jobs get done in under a minute, sixty mintues an hour, 480 times a shift, three shifts a day. And they figure out what to do with the little time left, so they can do their jobs day after day and remain human beings. Windshield wiper motor installation is a mundane piece of work; so too is producing plastic parts or tiny metal parts for dashboards. But the people who do the jobs are not. Their ability "to fly," to work blind, to challenge the boredom of their work, and to create meaning is a display of style and significance as important and powerful as any we commonly acknowledge.

Moreover, we need to acknowledge that this creativity does not exist in a vacuum. Though they work at their stations, line and production workers measure themselves and are measured by others as to how well their work merges with what comes before and what comes after. The faster they work, the more time there is for themselves and the more time there is for the next worker down the line. Of course, such time is not universal time. The line moves at a constant speed; the car will be in a work station for as long as it should be, no more, no less. Production continues at a steady pace. But such time is human time. It is time for Rochelle, who installs door locks when John finishes, to see a completed car coming toward her and not to worry if she can get the door closed and get her job started. It is time for John to set and cup his screws, draw on a cigarette, and get ready. It is time for a welder or a molder to create an animal from metal or plastic. Because it is human time in a mechanized world, it is of great value.

It is important not to misconstrue all of this. Assembly line and production workers who use their creative impulses to shape and perfect their jobs, or who use the materials and tools of work to make art in the moments between their jobs, or who use creativity and art as a way to escape from the devaluing conditions of their work are not automatically free from the alienation that is an inescapable part of modern industrial labor. Nothing could be further from the truth. There is an art to the work, but that artfulness is not enough to overcome the realities of a job done 480 times a day. Still, that is not the fault of the workers. If factory life is debilitating and alienating, it is because those who own and control factories need them to be so and not because there is something wrong or lacking in those who work in them. Neither are factories somehow modern cathedrals and the workers merely the anonymous artisans whose work now produces an Escort instead of a Chartres. The factory is no medieval setting composed by technology, and workers are not peasants with screwguns and stamping machines. The ethos of work and creativity of the men and women on the assembly line and in the factory is not that of some happy Golden Age, but as John said: "Get out of the car and leave the car done."

## Suggested reading

Byington, Robert H., ed. *Working Americans: Contemporary Approaches to Occupational Folklife.* Los Angeles: California Folklore Society, University of California, 1978. [Smithsonian Folklife Studies Number 3]

Lockwood, Yvonne R. "The Joy of Labor." In *Western Folklore* 43(3)(1984): 202-211. "Special Section: Works of Art, Art as Work, and

"Special Section: Works of Art, Art as Work, and the Arts of Working." *Western Folklore* 43(2)(1984).