Historical accounts of the rise of American industry have often overlooked its effects on ordinary workers. A number of archaeological projects are remedying that.

By Mike Toner
When Michael Nassaney and his team of archaeologists began digging through thick layers of industrial debris near Turners Falls, Massachusetts two decades ago, they were looking for traces of people who had inhabited the Connecticut River Valley up to 8,000 years earlier. They never found what they were looking for. But they did get a glimpse of a way of life that some contend is as poorly understood as the prehistoric past—that of working class Americans at the dawn of the industrial age.

“As we dug down through this industrial overburden, we started to wonder about what all this stuff was that we were going through,” recalls Nassaney, an archaeologist at Western Michigan University. A little historical research showed that they were excavating the site of the John Russell Cutlery Company; a late 19th-century factory that, in its day, was the largest maker of tableware in the world, and one of the first to fully mechanize the process. Active until the early 1900s, the plant was torn down in the 1950s and the site was forgotten until a local utility built a power plant there in the mid 1980s.

Among their discoveries was a large quantity of defective cutlery along the riverbank near the plant's cutting room. At first, Nassaney thought it was just another industrial waste pile. But its location next to what was once a factory window suggested that it was evidence of worker defiance against the new industrialized system; they discarded these imperfectly made pieces rather than trying to correct the manufacturing flaws.

“Industrial archaeologists in the United States have been working frantically to record and preserve the remains of rusting factories, abandoned buildings, and deserted mines before they disappear from the landscape,” says archaeologist Paul Shackel, the director of the Center for Heritage Resource Studies at the University of Maryland. “The omission of workers in the story of technology is, I am afraid to say, the norm rather than the exception.” In a new book entitled The Archaeology of American Labor and Working Class Life, Shackel chronicles a growing number of projects around the country whose aim is to correct that omission.

One of the most thorough of these projects is the work by Stephen Mrozowski, the director of the University of Massachusetts’ Andrew Fiske Memorial Center for Archaeological Research. Mrozowski and his colleagues spent a decade excavating the site of Boott Cotton Mills, a textile plant in Lowell, Massachusetts, which operated from the 1840s until the early 20th century. The mill owners built housing nearby for the hundreds of workers it employed, and Mrozowski was able, from the old privies and back yard debris, to get a glimpse of the lives of ordinary people who were working 70 hours a week in the early days of the industrial revolution. The site included the remains of boarding houses where unskilled workers lived, sometimes six to a room, as well as tenement-style townhouses for the skilled workers, and the home of the mill agent, who supervised the laborers.

Mrozowski was surprised to discover that household luxuries like cosmetic and cologne bottles. There weren’t any stark differences in the kind of ceramics or glassware either. And based on the discarded bones we found, there didn’t even seem to be much difference in diet. And despite a company prohibition on drinking alcohol, there was ample evidence that everyone did it,” he said. The material culture indicated that “class distinctions were probably more subtle than most people have suspected,” he says.

But other types of evidence, Mrozowski notes, suggested the contrary. Early in the mill’s history, when it was new and most workers came from nearby communities, the backyard soil samples contained an abundance of grass pollen—a testimonial to well-kept company housing. Later, as competition in the textile industry grew more intense, local workers were replaced by lower paid European immigrants and conditions deteriorated. “After about 1870, the pollen analysis shows that the yards of the boarding houses were choked with weeds,” he says. The mill agent’s yard, on the other hand, was still well maintained. Discarded bones in the tenements and boarding houses showed signs of being gnawed by rats, while there was no evidence of rodents at the agent’s house.

The lead content of the soil was high throughout the site, possibly due to peeling lead-based paint and corroding pipes. Although the company installed some indoor plumbing in the late 1800s, boarding house residents continued to depend on the privies well into the 1900s. Mrozowski is confident of that date because the team excavated a plastic button from one privy with a slogan suggesting that its owner had been vaccinated—probably during the epidemic of Spanish influenza—that struck Lowell in 1918.

Aerial view of archaeological excavation on the site of the Moynihan Federal Courthouse in Lower Manhattan. The block was once part of the notorious Five Points neighborhood.  R. Yamin

John Russell's Cutlery Company from Paul Shackel. Courtesy of the Pocumtuck Valley Memorial Association Library

Five Points intersection from which the neighborhood got its name. The excavation block abutted the intersection.  R. Yamin

As large factories began replacing skilled craftsmen with unskilled laborers to do assembly work, the communities where these factories were located reflected the trend toward conformity and control as well as resistance to it. Shackel saw evidence of this during
his seven-year investigation of Harper’s Ferry, West Virginia, which grew up around a government operated arms industry in the late 18th century.

Initially, gun makers at the Harper’s Ferry armory were skilled craftsmen who lived where they chose. Unlike the similarity of housewares and personal items unearthed in Boott Mills’ boarding houses, Shackel found very different ceramic assemblages from house to house and evidence that the gunmakers spurned the factory to do their work at home.

But change came quickly to Harper’s Ferry. By the 1840s, the armory was developing the ability to make interchangeable gun parts. Timesaving machinery was introduced. The military, seeking greater efficiency, imposed a rigid discipline on the factory and began redesigning the town with a grid and standardized architecture. Shackel says the impact of the changes is reflected in the changing landscape of the town.

Prior to the 1830s, industrialists justified the establishment of industry in non-urban areas by claiming that it could exist in harmony with nature.

The analysis of pollen remains showed that grasses predominated throughout the town, which Shackel states is a demonstration of the coexistence of the machine and the garden. “Once the military took control of operations, created a factory discipline, and tried to control the domestic lives of workers and their families, the grasses disappeared in the surrounding landscape and were replaced by weeds,” he says. “The new industrial order no longer needed to justify the harmony between the machine and the garden. Rather, the new emphasis in industry became the machine without regard to the natural landscape.”

“One of the strengths of historical archaeology is that it’s like a feedback system,” says Shackel. “When you have two different sources—the written record and the material culture—one informs on the other.” History records that Harper’s Ferry workers protested the regimentation of their lives, and archaeology reveals that resistance expressed itself in a variety of forms. Beside one of the armory walls, for instance, archaeologists have found a huge pile of discarded gun parts, many of them in such good shape that Shackel believes they were tossed out by workers who were unhappy at being forced to do assembly line labor. At the bottom of an elevator shaft, archaeologists also found hundreds of broken beer bottles, apparently thrown there by workers who were drinking on the job, despite a strict prohibition on alcohol in the armory.

Signs of rebellion were evident at home as well. Shackel’s excavations of workers’ houses show that despite easy access to new and fashionable goods after 1840, they increased their use of older, hand-painted ceramics and simple creamware. He contends that the use of unfashionable goods was a deliberate effort to emphasize “a material culture that was fashionable generations earlier when they had some control over their everyday lives.”

When coal miners in Colorado went on strike in 1913, they gathered in union ‘tent colonies’ throughout the coalfields. Tensions escalated, and in April 1914 national guardsmen surrounded the largest camp at Ludlow, in southeast Colorado. Gunfire erupted and by the end of the day as many as 26 men, women, and children had died and the camp had been burned. The United Mine Workers erected a monument commemorating the ‘Ludlow Massacre’ the following year, but the incident quickly faded into the pages of history. One recent opinion survey found that 60 percent of Colorado residents interviewed thought Ludlow was the site of an Indian massacre.

Since the late 1990s, archaeologists have been piecing together a graphic picture of the incident that history can only hint at. They knew the approximate location of the tent camp from a historical photograph, and using remote sensing to guide their excavations, they discovered the outlines of the earthen berms that had been built around the tents. Beneath the tents, they also found hand-dug cellars where occupants stored their possessions and took refuge when the bullets started to fly.

“These cellars are windows to the daily lives of the striking miners and their families,” says University of Denver archaeologist Dean Saitta, who conducted the investigation.
with Phillip Duke of Fort Lewis College and Randall McGuire of Binghamton University. ‘Because of the violent and unexpected end to the tent colony; most of the personal belongings—toys, clothes, jewelry and religious medals—were left at the site when they fled and were still there for us to study. We also found things that shed light on the battle itself, from expended bullets coming into the camp, to a coffee pot with bullet holes in it, and fired cartridges, possibly from strikers within the colony firing back. From what we can tell, it appears the strikers were armed mainly with shotguns, which would not have been much use against machine guns and high powered rifles.’

Saitta says the abundance of Mason jars, which were used for home-canned products, and ‘store-bought’ food items, like cans of PET condensed milk, indicate the strikers got some of their support from outside the camp. A number of items associated with various nationalities confirm historical accounts that the strikers, who spoke at least 24 different languages, had managed to put aside ethnic differences in the interest of union solidarity.

Largely on the basis of recent archaeological work and the publicity it engendered, the Ludlow massacre site was designated a National Historic Landmark in 2009, which the National Park Service noted was due in part to the potential for home-canned products, and ‘store-bought’ food items, like cans of PET condensed milk, indicate the strikers got some of their support from outside the camp. A number of items associated with various nationalities confirm historical accounts that the strikers, who spoke at least 24 different languages, had managed to put aside ethnic differences in the interest of union solidarity.

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In some cases, city records enabled the archaeologists to link what they found with individual families. At the bottom of a wood-lined privy at the home of German baker Tobias Hoffman, they discovered fragments of elegant Chinese porcelain, fancy wine glasses, and a gilded porcelain smoking pipe. After Hoffman’s death in the early 1800s, his widow turned the building into rental apartments, but Yamin says the remnants of matching English tableware, snuff boxes, and perfume bottles from a newer privy suggest people were still living comfortable lives.

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