

Book Reviews

Arthur McIvor and Ronald Johnston, *Miners' lung: a history of dust disease in British coal mining*, Studies in Labour History, Aldershot, Ashgate, 2007, pp. xviii, 355, £60.00 (hardback 978-0-7546-3673-1).

Coal mining is the classic dangerous trade. There are few, if any, occupations that have taken so many lives or caused so many injuries among its workforce. Mine collapses, explosions, suffocation and starvation of miners "buried alive" are just a few of the possible catastrophes that have caused suffering and pain among miners and their families in coal towns around the globe. But, the pain does not stop there. As McIvor and Johnston's elegant study details, even those that escape the immediate dangers of the pit are subject to years, even decades, of pain, laboured breathing and eventual death. The dust created by the picks, hammers, and especially the pneumatic tools that were introduced in the twentieth century crept deep into the lungs of the otherwise powerfully built, healthy workers, eventually incapacitating them, ruining their bodies and killing them. McIvor and Johnston relate the distressing story of towns where healthy young men are slowly transformed into hunched-over, crippled and diseased elderly. The various ways that dust affected these men is a testament to the evils of the mining system: silicosis, chronic bronchitis, coal workers pneumoconiosis (CWP), pneumonia, and tuberculosis all took their toll and were all identified by a variety of physicians, commissions, expert panels as the peculiar costs of Britain's industrialization. By the 1930s, one in twenty workers in Britain was a miner, yet miners accounted for 25 per cent of all workplace injuries and an untold percentage of industrial diseases in the UK. This text, sprinkled with moving testimony of workers themselves, tells us of the cost in lives

lost to Britain's industrial power, highlighting the centrality of the industry to British life.

The book begins with vivid descriptions of the mining process and the extraordinary changes in that process that, ironically, made work safer while it increased the disease burden that miners experienced. In brief, McIvor and Johnston describe nineteenth- and early-twentieth-century mining practices where narrow seams, often only 18 inches wide, were pecked away with hand tools by extremely fit men. The build up of gases and the inadequate ventilation systems precluded any but the most minimal light and increased the likelihood of accidents.

Work conditions were marginal at best in most mines. While government regulations were occasionally passed, lax enforcement and owners' resistance led to dangerous conditions. In constant danger from collapses and explosions, the safety of miners was largely in their own hands. Miners depended on each other, creating a solidarity that translated into a strong union and community cohesion, factors that would play an important role in spurring government and doctors to focus on disease in later years.

The book neatly details the ways that the transformation of the work process directly impacted on the health of the workforce. Beginning in the early twentieth century, mines gradually went through a dramatic transformation as pneumatic picks and hammers, and mechanical grinding devices, replaced the handheld tools of earlier generations. Larger shafts where machinery could be placed and where workers could actually stand up, rather than work hunched over or prone, led to an improvement in the physical conditions underground but increased workers' exposure to the finely divided dusts created by the powerful, high speed tools.

For the medical community throughout the first half of the century, a common assumption

was that coal-dust *protected* workers from tuberculosis and other lung diseases, and that the major sources of illness were environmental (i.e. not work related) or silicosis. Slowly the idea that coal-dust protected the workforce was replaced. Coal-dust came to be seen as an irritant and, eventually, the power of the coal workers' union pushed clinicians and government officials to see silica and coal-dust itself as causes of disease.

The end of the Second World War was a crucial period in the identification of dust as a serious problem. The nationalization of the coal industry, the passage of pro-labour legislation, the inclusion of pneumoconiosis into Workmen's Compensation in 1943, the growth in power of the coal workers' union, all led to a dramatic increase in the number of identified pneumoconiosis cases in the post-war period. Following the war, a combination of a revived industry, a new government, and the rise of social medicine also led to a serious re-examination of the number of miners suffering from this disease. Archie Cochrane and other leaders in social medicine allied with the labour unions to detail the dangers of mining and to document the effect of disease on the workforce, the families and the mining communities alike. Unlike the United States where the Cold War, the resulting conservative political environment and a conservative medical community had ended physician interest, during the 1950s the UK experienced an explosion of interest in the variety of lung diseases that affected the miner.

Throughout the rest of the twentieth century a variety of commissions sought to tease out the reasons for miners' lung diseases. In part, this effort was the result of the enormous social and financial implications of identifying the "causes" of disease in the workplace. Those illnesses that were identified as occupational in nature were necessarily an indictment of working conditions in the mines and therefore were directly or indirectly the responsibility of the government which had nationalized the mines in 1946. But, those conditions, such as bronchitis, pneumonia, and

tuberculosis, commonly identified as environmental illnesses, were perceived as the responsibility of the miners themselves. Throughout the 1980s and 1990s medical opinion was partially shaped by the social implications of the definitions of occupational disease. The question of who was responsible for the diseases identified with mining had huge political and economic implications. It was only at the end of the century, after the death of mining in the UK, and the death of untold numbers of miners, that the distinctions between those diseases that would be compensated and those that would not was laid to rest and bronchitis and emphysema were incorporated into the compensation schedules. Between 1998 and the 2004 deadline when miners suffering from bronchitis and emphysema could register for compensation from British Coal, 570,000 claims had been made.

There are few heroes in this book other than the workers themselves. In some communities, labour, the authors point out, played an ambiguous role in protecting their own, often worrying about the impact on wages, employment levels and even the costs of rehabilitation as reasons to underestimate the extent of disease. Government officials worked at cross purposes in their efforts to keep coal production up while addressing the horrendous conditions under which miners worked. Even the culture of the mining communities themselves sometimes worked to undermine attention to CWP, silicosis and other related lung conditions as mining communities prioritized job security, wages and family cohesion over health. Stoicism and the development of a culture of manliness were effective tools in reducing tensions over health between management and workers, as well as maintaining the productivity of the mines. Dust was something miners learned to live with, whether or not their long-term health, their communities and even their lives were sacrificed.

This is a powerful account of the social conditions and intellectual traditions under which disease is identified—or not, as the case

may be. Filled with moving testimony of the workforce itself, there is a poignancy that reflects the sympathies of the authors and the suffering of the people they interviewed. Workers were sometimes incidental to the needs of a ravenous economy, eager for the coal that powered the birth and rebirth of industry. In light of this, we find that people themselves were sacrificed, sometimes knowingly, sometimes not. The elaborate century-long intellectual rationales used to “distinguish” the environmental and occupational “causes” of lung disease was, in many ways, a distraction from the reality that dust in the mines killed. The technical discussions detailed in this fine book are, in a way, a terrible indictment of the professional as well as the political community.

It is impossible for this American reviewer not to comment on some of the similarities as well as the differences between the experience in the UK and the US. In general, the history of lung diseases among miners is remarkably similar in both countries: the transformation of work, the debates over responsibility and risk, the ways that the epidemiology of lung diseases were subject to the changing political winds all resonate with this writer. Gerald Markowitz and I have detailed a similar story in our own book, *Deadly dust*. But, there are differences as well that, while too much to go into here, are important to identify. Perhaps the most important is the fact that in the UK the reality of a strong labour movement, a central government that reacted to the demands of labour and a medical community of politically engaged physicians ready and eager to aid the workforce itself led to a continuous attention to pneumoconiosis and lent legitimacy to the experience of the labourers. Whatever the political machinations that continually reshaped and delayed remedy, this alone is important. In the US there were decades during which barely anyone paid attention to the suffering of miners and their families. While black lung legislation was eventually passed, silicosis was rarely mentioned after the 1940s and was assumed to be a disease of the past. It was only in the

1990s after the end of the Reagan and Bush I presidencies that government formally recognized that pneumoconiosis still ravaged large numbers of people. Today, there is an effort once again to tuck this disease away, to relegate it to a cabinet of curiosities, far from the gaze of public health or labour officials. Hopefully, this excellent book and other work will not allow us to forget the steep price the workforce pays for our economic prosperity.

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E P Hennock, *The origin of the welfare state in England and Germany, 1850–1914: social policies compared*, Cambridge University Press, 2007, pp. xvii, 381, £55.00, \$99.00 (hardback 978-0-521-59212-3), £19.99, \$35.99 (paperback 978-0-521-59770-8).

Future historians may judge the key moment of New Labour’s stewardship of the NHS to have been Tony Blair’s pledge, on 16 January 2000, to raise British health expenditure to the level of the European Union average. But how was it that the NHS, once celebrated for its economy, now stood revealed as excessively parsimonious? As Peter Hennock’s new book shows, to understand this we need to look beyond recent policy to more distant history. Indeed, the reasons why British social expenditure has so often been “restrictive”, in contrast to the more “expansive” (p. 345) welfare states elsewhere lie with decisions taken a century ago.

Although it does not break major new ground in terms of primary research, this text is a substantial addition to the historiography of the welfare state. Hennock has developed a distinctive methodology founded upon the comparative study of England and Germany, which he uses to illuminate the unique features of each. Public health historians will already be aware of articles demonstrating the value of this approach: his analysis of smallpox vaccination programmes in the two countries,