The Staying Power of Asbestos Hazards: A Critical Environmental Justice Case Analysis

By

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Abstract

Now infamous for its health hazards, mineral fiber asbestos was once a common building material prized for its versatility. For years, the asbestos industry profited from the manufacture of asbestos products, growing into a powerful force with widespread employment and facilities. Even as asbestos became linked to fatal lung disease, the industry and its allies suppressed knowledge of the material’s dangers, continuing to benefit at the expense of workers’ lives. When formal recognition of asbestos hazards finally necessitated industry acknowledgment, asbestos use declined; yet it has not ended. The multi-scalar and multi-temporal impacts of asbestos underlies stark inequities regarding the source and victims of exposure. This article aims to better understand the mechanisms that enabled asbestos risks to abound both in the past and present. The author approaches her analysis from the critical environmental justice framework proposed by sociologist David Pellow. Pellow’s approach is grounded in four pillars: intersectionality, multi-scalar thought, cautious engagement with powerful actors, and indispensability. An evaluation of the asbestos case using this framework untangles the systemic hurdles facing socio-environmental hazards like asbestos. The critical environmental justice paradigm offers the necessary complexity to promote a multi-faceted understanding of the hurdles to eliminating asbestos use and to address adequately other social issues of this kind.

Keywords: Asbestos, Critical Environmental Justice Framework, Health Hazards

INTRODUCTION

Asbestos is a naturally occurring mineral widely mined and processed for insulation in a range of applications. However, as early as the 1900s, exposure to asbestos was found to be linked to asbestosis, mesothelioma, and other non-lung-related diseases (Whitmer 2023). Despite mounting evidence that asbestos was directly associated with deadly health effects, the asbestos industry – with the help of cooperating scientists, insurance companies, and governmental institutions – succeeded in a multi-decade cover-up of asbestos’ dangers.

The early asbestos movement in the late 1900s focused on regulating asbestos exposure in industry followed by the eventual push to fully ban the manufacturing, importation, and sale of asbestos-containing materials. This was met with resistance from asbestos companies who chose industry profit over the health of their workers and utilized tactics of knowledge sequestration to achieve these goals. However, even after asbestos was recognized as a harmful substance in many countries and certain asbestos workers gained compensation for their exposure, the harmful effects of asbestos persist. Exposure continues, especially for those in low-income communities and in certain professions whose housing and public buildings may still contain asbestos. Moreover, many developing nations that rely on cheap asbestos for building materials have not yet achieved adequate prevention from exposure. This case spans many decades and affects various stakeholders, offering a fascinating case study for how the multi-scalar origins and effects of socio-environmental problems can be understood through the framework of critical environmental justice pillars.
HISTORICAL CONTEXT OF ASBESTOS

Development and Cover-Up of Asbestos Use

The rise of asbestos began after the onset of the Industrial Revolution around 1800 (“The History of Asbestos Disease” 2017). As industry transitioned to new manufacturing processes, commercial use of machinery powered by coal and steam coincided with a greater need for technology to prevent machine heat from burning workers. Asbestos became the primary insulating material for these purposes and rapidly integrated into everything from steam pipes to engines to factory parts (“The History of Asbestos Disease” 2017). By the end of the 1800s, asbestos had expanded its use to everyday goods including concrete, bricks, pipe coverings, flooring, roofing, and wall materials (“The History of Asbestos Disease” 2017). Founded in 1858, Johns Manville would soon become the largest manufacturer of asbestos products and a key supplier to the U.S. during the mid 1900s (Whitmer 2023). Alongside other companies, Johns Manville contributed to asbestos’ growth into a multi-billion-dollar industry employing hundreds of thousands across the U.S.

While asbestos companies continued to profit, the dangers of asbestos were already well documented by the medical and scientific communities. As early as the 1920s, reputable medical journals had published articles linking asbestos to asbestosis, an often-fatal lung disease caused by scarring from inhaled asbestos (Whitmer 2023). Notably, in 1927, pathologist Dr. William Edmund Cooke published the first known medical paper on asbestos disease in the British Medical Journal; he encouraged Parliament to conduct a study, leading to the first health study of asbestos workers which conclusively linked inhalation of asbestos dust to fatal asbestos disease (“The History of Asbestos Disease” 2017). In 1930, scientists formally established a link between asbestos and lung cancer, specifically, mesothelioma, an aggressive cancer caused almost exclusively by asbestos exposure (Whitmer 2023).

The lack of asbestos regulations reflected not an ignorance of asbestos’ harms, but rather an intentional act to avoid financial liability for asbestos-related deaths. For Nellie Kershaw, an asbestos worker in the 1920s, her pleas with Turner Brothers Asbestos to compensate for her asbestos disease were refused as the company cited that it would be “exceedingly dangerous to accept any liability whatever” (“The History of Asbestos Disease” 2017). Kershaw’s case is just one of a long-standing collusion between the asbestos industry and insurance companies. The Metropolitan Life Insurance Company worked with more than a dozen leading asbestos companies including Johns Manville, Raybestos-Manhattan, National Gypsum, Fibreboard, and Flintkote to conceal asbestos dangers (Whitmer 2023). They blocked inspection of factory working conditions and persuaded government officials that hazards were controlled – even with evidence to the contrary from confidential company-sponsored reports of asbestosis being found in 20% of workers (Whitmer 2023).

The collusion within the asbestos industry extends to physicians as well. Whitmer describes how as early as 1933, Dr. Anthony Lanza, a physician employed by Metropolitan Life, instructed Manville not to hang warning posters describing asbestos risks for employees (Whitmer 2023). Just three years earlier, Lanza had conducted a study on asbestos workers in the textile industry which revealed shocking levels of risk for asbestos exposure: for workers with 5-10 years of exposure, 50% showed indications of asbestosis in x-ray; for workers with more than 15 years of exposure, 87% had lung disease. The publication was hidden by industry for four years and likely altered before being released to the public. In 1949, Dr. Kenneth Smith, a local physician advised Johns Manville executives against sharing chest x-rays indicating early signs of asbestos from asbestos workers writing, “as long as the man is not disabled, it is felt that he should not be told of his condition so that he can live and work in peace, and the company can benefit by his many years of experience.” This same man was later hired as the medical director of Johns Manville (Whitmer 2023).

These attempts to conceal the danger of asbestos from workers and the public were not unique to Manville. Many asbestos companies contributed to this multi-decade long cover-up in attempts to retain workers and avoid stricter regulations. By the 1960s, advancements in the legal and medical sector finally made it impossible for industry to continue to avoid responsibility. In 1962, Dr. Irving Selikoff and his colleagues at Mount Sinai Hospital conclusively linked asbestos exposure to cancer and other fatal conditions (Whitmer 2023). Soon after, the American Law Foundation amended tort law to mandate warning labels on products (Whitmer 2023). 1971 brought both the formal EPA classification of asbestos as a hazard and the first lawsuit against an asbestos product (Whitmer 2023).
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Domestic Continuation of Asbestos Use

However, even as the dangers of asbestos gained formal recognition, asbestos risks prevailed. Within the U.S., while the EPA issued a ban on most asbestos products in 1989 in Section 6 of the Toxic Substances Control Act (TSCA), the decision was overturned in 1991 by a court decision that weakened the EPA’s authority under TSCA (“EPA Rule Would Finally Ban Asbestos, Carcinogen Still in Use” 2022). In 2022, the Biden administration proposed an EPA regulation to significantly restrict asbestos use, but health advocates argue that the decision was insufficient, citing the estimated 40,000 annual asbestos-related deaths as indication that a total ban on all forms of asbestos is necessary (Friedman 2022).

Most industries eventually stopped using asbestos by their own volition, due to the flood of lawsuits from people diagnosed with asbestos-related diseases. However, as recently as 2022, chrysotile asbestos was still used by chloralkali production processes in certain types of chlorine bleach and caustic soda (sodium hydroxide) (McGrory & Bedi 2022). The chemical industry has a long-standing and vocal opposition against EPA attempts to ban asbestos, with the American Chemistry Council claiming that ending asbestos use in chlorine disinfectant would harm domestic drinking water supply alongside other chloride uses in manufacturing batteries, windmills, and solar panels (“EPA Rule Would Finally Ban Asbestos, Carcinogen Still in Use” 2022). U.S. chemical companies including OxyChem and Olin Corp still import hundreds of tons of asbestos each year from Brazil, citing the use of extensive precautionary protocols (McGrory & Bedi 2022). Yet while most federal inspections miss blatant evidence of asbestos hazards, others reveal processing plants full of exposed asbestos with monitors indicating asbestos levels well above the Occupational Safety and Health Administration’s exposure limit (McGrory & Bedi 2022).

International Continuation of Asbestos Use

Worldwide production of asbestos continues, particularly in countries such as Russia and China. A 2014 biomedical literature review indicates that global production and consumption of asbestos exceeded 2 million metric tons per year, with a large portion being concentrated in India, China, Russia, and certain developing countries (Frank & Joshi 2014). These producing countries often utilize a small fraction of the produced asbestos, exporting the majority to countries in the developing world with weak occupational and environmental regulations (Frank & Joshi 2014). Many developing nations particularly in Asia, Africa, and Latin America still rely on asbestos as a cheap building material, resulting in toxic environments with insufficient occupational health and safety systems paired with technological challenges in early detection of asbestos-related pulmonary malignancy (Joshi & Gupta 2005).

Chrysotile asbestos continues to be aggressively marketed to developing countries as its use is gradually restricted in developed countries (Joshi & Gupta 2005). Attempts to regulate the movement of asbestos have been met with resistance by exporting nations; a 2017 attempt by African nations to bring asbestos under the Rotterdam Convention which would necessitate informed consent of asbestos hazards by importing countries was blocked, failing to meet unanimous agreement among the 157 parties present (Greenwell 2017). Exporting countries fuel the ongoing asbestos controversy over the pathogenicity of differing fiber sizes, types of asbestos, and bio-persistence of the compound which serves to maximize confusion on asbestos dangers for importing countries (Greenwell 2017). Biased economic policies further support the continued use of asbestos such as in India where tariffs are raised on safer artificial materials but kept low on asbestos (Greenwell 2017). Historical systems that sidelined safety for profit continue to keep asbestos and its hazards in circulation.

THE ENVIRONMENTAL SOCIOLOGY OF ASBESTOS

The Critical Environmental Justice Perspective

At its core, past and present issues surrounding asbestos are deeply entrenched in social and environmental concerns. The ongoing presence of asbestos as a toxic environmental factor raises concerns about environmental justice and inequality. Past asbestos exposure centered on occupational risks for workers, their families, and those who lived close to asbestos-processing facilities (Frank & Joshi 2014). In the present day, the focus of asbestos concerns has shifted from industrial avenues of exposure to the widespread remnants of the material in buildings and homes which continually place vulnerable community members at risk. David Pellow’s critical environmental justice framework encompasses the complex
sociological factors involved in asbestos risk. The four pillars of analysis include intersectionality, multi-scalar thought, cautious engagement with powerful actors, and indispensability (Pellow 2018).

**Pillar 1: Intersectionality**

Intersectionality focuses on how identities and social categories culminate to produce advantages or disadvantages for social groups; in other words, it is the acknowledgment that peoples’ experiences are influenced by a unique combination of the ways in which they identify. The placement of asbestos facilities, the decisions surrounding who receives compensation for asbestos-related disease, and the determination of which asbestos-contaminated sites are dealt with are only three of many scenarios in which racial and class-based inequalities operate. Within the U. S., asbestos contamination within school buildings offers a representative example of this dynamic. In 1986, Congress passed the Asbestos Hazard Emergency Response Act (known as AHERA). This act mandated that local educational agencies inspect buildings for asbestos and properly respond to reduce asbestos hazards (Ghura & Busette 2022). In 2015, when Senator Ed Markey and Senator Barbara Boxer attempted to compile a report on asbestos in local schools, their country-wide survey received responses from only 20 states and indicated that more than two thirds of local districts had asbestos. Their report concluded that states were neither adequately monitoring nor addressing asbestos hazards in schools (Ghura & Busette 2022).

**Racial and Socioeconomic Injustices**

The lack of oversight on asbestos risks was particularly prominent in marginalized communities which lacked essential advocacy resources and faced structural barriers to parental participation in their children’s education; many low-income and non-white parents experienced time constraints from working multiple jobs, language barriers, or a lack of awareness of environmental hazards when compared to wealth or white counterparts (Ghura & Busette 2022). At Malibu Beach High School, nearly two dozen teachers reported health issues after the school was renovated, prompting parents to conduct their own testing and eventually launch a nationally covered media war with the school district (Lovett 2016). With the district being 77% white and one of the most affluent communities in the country – supermodel parent Cindy Crawford offered to pay for hazard testing herself – officials were soon prompted to act (Lovett 2016). In contrast, poor and minority school districts faced drastically less responsive outcomes to their concerns; in 2010, Washington Elementary School in California left students exposed for multiple months to asbestos in cooking and music classrooms; in 2015, Chicago Public Schools failed to address cases noted by inspectors two years prior within their buildings; in 2018, A.S. Jenks Elementary School in South Philadelphia continued to find high levels of asbestos fibers on their gym floors more than 4 years after they were flagged for hazards (Ghura & Busette 2022). Asbestos-based injustices produce a further ripple effect that perpetuates systemic inequalities. For example, studies indicate that unsafe educational facilities reinforce learning outcome inequities among marginalized students (Vazquez-Martinez, Hansen, & Quintero 2022). The compounding factors of non-whiteness, poor socioeconomic status, and the vulnerability of children act to produce a heightened risk for asbestos exposure.

**Gender Injustices**

In an example of gender-based intersectionality associated with asbestos hazards, Johnson & Johnson was recently accused of selling asbestos-contaminated talc in their baby powder which contributed to the development of ovarian cancer among women (Bendix & Wile 2023). Investigations reveal that the company failed to disclose concerning test results found as early as 1999 to regulators and the public (Girion 2018). The case reflects the widespread intersection of gender with forms of environmental inequality. In the rationale of environmental reproductive justice, women are placed at greater risk of asbestos hazards given their more common role as caregivers, resulting in the physical assumption of environmental hazards as burdens on their bodies.

**Compensatory Injustices**

Intersectionality further applies to attempts to rectify environmental injustices. In the case of Cape, a British asbestos mining company in South Africa, the success of asbestos compensation for former workers as viewed by international lawyers, environmental campaigners, and certain subsets of compensated victims, is better understood as relative when seen through the differing interpretations of various communities. While the town of Prieska succeeded in achieving desired court settlements...
as a result of their resource mobilization of grassroots activists, international media, and collaboration with non-governmental organizations, other groups such as the Griquatown community viewed the outcome as unsatisfactory (Waldman 2007). The comparative poverty of Griquatown, distinct identity as “lower class” Boorlings, passive political stance associated with strong Christian values, and limited knowledge of asbestos disease all contributed to differing interpretations of the asbestos litigation (Waldman 2007). The consideration of intersecting identities and symbolic construction of the issue in culturally significant terms is essential for conceptualizing the movement in alternative epistemes representative of that of the community.

**Pillar 2: Multi-Scalar Thought**

The second pillar of critical environmental justice is multi-scalar thought which draws attention to both the historical time span and geographical reach that often accompanies environmental issues. In the case of asbestos, multi-scalar thought reflects the broad temporal and spatial effects of its health risks. Mazzeo describes the delayed impacts of asbestos exposure as “fragmented eternity” in which past environmental exposures serve as a source of historical memory in the bodies of victims (Mazzeo 2018). Across various frameworks, asbestos hazards act as form of slow violence. Other types of organization disaster such as nuclear meltdowns or bank collapses feature an abrupt onset of crisis followed by acute damage with significant destruction. In contrast, slow environmental injustice is characterized by incremental onset, attritional injury, ambiguous boundaries of impact, and expansive scale. The temporal and spatial gap between exposure and consequence contributes to significant difficulties in achieving social, political, and scientific visibility, culminating in a lack of salience and hindrance of social accountability. For almost two centuries, asbestos exposure has existed in numerous forms and across every major continent. The long incubation period for asbestos-related diseases such as mesothelioma also offers significant hurdles for scientific studies on the effects of community asbestos exposure.

**Pillar 3: Cautious Engagement with Powerful Actors**

Pillar three, cautious engagement with powerful actors, focuses on the power of the state in preserving environmental injustices. Here, this is evidenced by the collusion of the asbestos industry with cooperating insurance companies, physicians, scientists, and government officials. Asbestos was long presented as an academic debate that necessitated quantitative data and framed science as an impartial arbitrator of risk (Myers 1981). The power imbalance between the industry and state versus labor maintained the justification of capitalist production while concealing the intervention of powerful actors. This framed the biased industry-funded science as a purely neutral, academic argument (Myers 1981). Compounded by difficulties in tracing and quantifying asbestos exposure, the engagement with science as impartial proved harmful for impacted groups. The eventual success in formally categorizing asbestos as a hazardous material required engaging state powers for legislative action. Affected groups must similarly appeal to political actors to achieve rectification of present and future asbestos hazards.

**Pillar 4: Indispensability**

The fourth pillar emphasizes the foundation of indispensability – an acknowledgment or lack thereof of the importance of all people groups – in the creation of inequalities and the success of mobilization efforts. Alongside processes discussed in relation to pillars 1 and 3, this concept is clearly depicted in a pointed critique of industrial processes and particularly capitalism as the driving force behind asbestos hazards. Schnaiberg’s theory of the treadmill of production places capitalism’s inherent imperative for growth as a key factor responsible for increasing environmental degradation and inequality (Schnaiberg, Pellow, & Gould 2008). Several hallmarks of this process include the generation of toxins by private firms, race and class as drivers, and the use of coercive polity to achieve these goals. These hallmarks are present in the asbestos and chemical industry’s attempts to gatekeep evidence of asbestos dangers through collusion with insurance, physicians, and scientists, the systemic grips of capitalism drive decisions to prioritize profit over both worker and public health.

Internationally, asbestos reflects a NIMBY (not in my backyard) attitude among developed countries which pushes hazards into developing countries where regulations are less stringent and economic motivations for the continued use of cheap asbestos are high. Analysis of the history of asbestos in South Africa, one of the historical global leaders in asbestos production, reveals how the weakness of organized labor and the lack of appropriate regulations were associated with the movement of hazardous industrial processes away from...
developed countries (Myers 1981). Within South Africa itself, similar racialized systemic logic results in greater compensation for asbestos-related disease for whites than for people of color (Myers 1981).

The lack of justice surrounding the many facets of asbestos exposure is a result of both race- and class-based dispensability; when certain groups are not seen as valuable parts of society, logic does not support the input of resources and energy to achieve justice. Rather, less valued groups and communities are viewed as disposable components of society—fitting to be sacrificed for the greater utility of those viewed as more valued or deserving.

CONCLUSION

In analyzing the case of asbestos exposure and hazards through the lens of critical environmental justice, the complex origins and effects of socio-environmental problems is clear. The four pillars of critical environmental justice – intersectionality, multi-scalar thought, cautious engagement with powerful actors, and indispensability – illustrate the ways through which historical oppression and the reproduction of these inequitable structures contributed to the ongoing challenges in mitigating asbestos effects. As seen with the asbestos movement and paralleled in other cases of social mobilization for environmental movements, systemic hurdles must be both acknowledged and addressed before true justice can be achieved in any sphere. It is only with an intentional examination of complex interactions that an issue of such scope may be confronted equitably.

References


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