More-Than-Class Struggle. Disaster at the Nelson III Mine in North Bohemia 1934

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Autobiographical sketch

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Disclosure statement

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Abstract

A coal dust explosion in the Nelson III mine in 1934 resulted in the deaths of 144 miners. Although mining disasters were common in the history of coal mining in northern Bohemia, this one led to two changes. First, one of the oldest demands of Austrian and Czechoslovak miners was finally enforced in Czechoslovakia in response to the disaster: a law was passed requiring mine inspectors to be selected from among miners. Second, for the first time in Czechoslovak history, mine owner representatives were arrested after the explosion. This study examines the disaster and the everyday life of miners from a more-than-human perspective. The study argues that to understand the reasons for the changes brought about by the disaster, one must examine not only the relationships between people but also their relationships with materials, specifically coal dust and coal gas. The different properties of these two underground materials played a key role in determining who was to blame for the disaster. Coal miners often described their lives as a constant struggle. Underground, they faced deadly mine dangers, and above ground, they fought mine owners over workplace safety issues. I therefore describe this conflict as a more-than-class struggle. While it was determined by the relationship to the means of production, it was also significantly influenced by inhuman entities.

More-Than-Class Struggle. Disaster at the Nelson III Mine in North Bohemia 1934[1]

Introduction

High to the heavens the fire now flies…
Those who went down paid the ultimate price.
Lying there silent, so still and so cold…
like the buried coal… like the buried coal…
Never again will they kiss their child's face,
as you do now, sir… madam… with grace.
Maybe his hand, stiff and lifeless and bare,
blesses him there… blesses him there…
Death's breath in the air…
Death's breath in the air…[2]

Alois Šefl, 1934

Coal miner and journalist

In the afternoon of January 4, 1934, in northern Bohemia, halfway between the mining towns of Osek and Duchcov, a terrible explosion was heard, alerting everyone within a radius of several kilometers to a life or death struggle taking place 350 m below ground. Eyewitnesses saw flames shooting 18 m high from the Nelson III brown coal mine. The flames were followed by thick black smoke billowing from the pits. A gas explosion in the mine caused the coal dust to ignite. The spread of the dust throughout the entire area of approximately 80 km of tunnels led to a series of explosions that affected virtually the entire mine. Four miners from the afternoon shift were rescued, while 142 miners died from suffocation or burns, including one female worker working on the surface. Two more died during the rescue operations. The explosion scattered mining equipment and destroyed several mine buildings. The immediate aftermath of the explosion is best described by Alois Šefl

[1] This work was supported by the Primus program of the Charles University under Grant number PRIMUS/24/SSH/16 'ResisTerra: Conceptualizing More-than-human Resistance of the Anthropocene'.
[2] The three poems in this text were translated from Czech and German into English by poet and translator Jan Škrob. "All remaining Czech and German texts, including the titles of archival documents cited in the references, were translated into English by the author."

(1936), a lifelong coal miner, journalist, syndicalist activist, and author of the reportage novel *Uhlí a smrt* (coal and death):

> The road leading from Duchcov through Háj to Osek was full of people rushing on foot and on bicycles, among them crying women whose husbands were on the afternoon shift, running toward Nelson. A chain of guards had already formed around the unfortunate Nelson pit, barely holding back the thousands of people, men, women, and children from Osek and Hrdlovka, where most of the miners working in the pit came from. No one yet knew anything about the extent of the disaster, but the sight of the pit was sad and foreshadowed the worst. The mining tower was badly damaged by the explosion, and part of the coal sorting plant was destroyed. Two bodies, a man and a woman, had already been pulled from the rubble (pp. 48–49).

These sad scenes are familiar in every coal-mining region, including northern Bohemia. Mining disasters are an integral part of the history of coal mining. However, two factors made this disaster exceptional. First, on the fourth day after the disaster, the general director of Brüxer (Most) Kohlenbergbau-Gesellschaft (The Brüxer coal mining company), Hermann Löcker; the mine manager responsible for its operation, Stephan Beisser; and six of Beisser's subordinates responsible for safety at the mine were arrested. This was the first time in the Czechoslovakian area that mine owners and their direct subordinates had been charged with responsibility for a disaster. Second, just six months after the disaster, a law was passed introducing inspectors from among the miners, which was one of the oldest demands of the Austrian mining movement (Strike committee, 1896).

This study analyzes why this particular disaster led to these two changes. Older historical works dealing with this event explained these changes primarily by the large number of miners who died (Košek, 1977; Majer, 1984). In this study, I show that it was not just the large number of people who died that determined the guilt of the mine owners, but also *how* these people died. I argue that it was the properties of the underground gases and coal dust that significantly influenced both the political negotiations and judicial investigation of the events. Moreover, I claim that the determination that coal dust caused the explosion led to the arrest of the mine owner and the enforcement of the long standing miners' demand for the introduction of mining inspectors. I additionally show that it was the properties of the gas whose ignition led to the explosion of the dust that ultimately led to the mitigation of their guilt. The history of mining is, among other things, a history of conflict over safety (Singleton & Reveley, 2024; Stewart, 2016). The large number of sources left behind by the investigation into this disaster showed that this struggle did not take place only on the surface – in strike demands, demonstrations, or parliament – but that political

negotiations between the miners and the mine management on safety were already taking place during the work process itself, on a daily basis.

New materialism, more-than-human history, and class analysis

In this study, I examine the relationship between mining and the more-than-human environment of the mine that surrounds miners on a daily basis. Coal dust and its ability to actively affect miners and other human actors play a key role in this study. Conceptually, I draw on various forms of new materialism. New materialist social scientists have distanced themselves from the postmodern and social constructivist hegemony that dominated the social sciences for several decades (Le Cain, 2017). These approaches had their roots in semiotic theory, according to which all meanings, and sometimes even reality itself, arise from internal relationships between abstract words and concepts (Le Cain, 2015). Without wishing to downplay the importance of culture or language, new materialists criticize the idea of language's independence from the material world that surrounds us. They emphasize that everyday experience is not based solely on a textual understanding of our surroundings, but also on sensory interactions with matter, whether human or non-human (Coole & Frost, 2010; Grosz, 2015; Haraway, 1991; Harvey, 1996; Hekman, 2008; Hodder, 2012; Ingold, 2004; Olsen, 2010). Unlike old materialism, in which the material world was often presented as static and unchanging, new materialism encourages a more dynamic understanding of matter as "active, self-creating, productive, unpredictable" (Coole, Frost 2010, p. 9), where the so-called natural world is not merely a source or raw material for economic production, technological progress or social construction (Lemke, 2021).

One of the connecting threads between new materialists is their emphasis on the active dimension of matter. Jane Bennett (2010), a pivotal figure in new materialism, uses the term "thing-power" to express the ability of inanimate entities to produce effects in connection with other material bodies. Bennett points to the ability of things to resist human will and intentions, but also their ability to act with their own power, whereby she means all non-human agents (animals, plants, minerals, storms, tools, etc.). One of the problems with some new materialists is their tendency to romanticize non-human entities. As social theorist Thomas Lemke (2021) points out, Bennet tends to describe the positive and creative dimensions of the activity of things while overlooking their destructive aspects. In the case of this study, there is no need to explain this destructive dimension in too much detail. The active role of coal could, for example, have led to the formation of strong solidarity among miners, as described by historian Thomas Andrews (2008) when examining the Colorado coal basin, but it also killed and destroyed individuals and hundreds of people at a time.

New materialism has not avoided social history or labor history. Historian Katrina Navickas (2018) calls for a return to E. P. Thompson (1963), whose approach to class as something that is not static but shaped from below by workers' experiences as well as by economic structures effectively linked traditional materialist social history with new cultural approaches. Navickas (2018) emphasizes the key role of places (e.g., workplaces), where the everyday experience of workers materializes, while also arguing for a revival of structuralism in history, where the class structure of society has a key influence on social reality, but the specific form of classes is not fixed and deterministic – it is rather more fluid and permeable, intertwining with other forces, groups, and identities such as race, gender, religion, nationality, and so on.

The emphasis on language and cultural representation has pushed the history of the working class to the margins of historiography, and the working class itself has been almost dissolved in a network of discourses and multiple identities. By embracing new materialism or the more-than-human perspective (O'Gorman & Gaynor, 2020), I do not wish to marginalize the class perspective in research into the past. I am not trying to dissolve the working class in a multitude of assemblages of more-than-human agents. Just as the more-than-human perspective ultimately emphasizes the study of humans (Kuřík, 2022), I too want to emphasize the study of the working class, class relations, and class-based social conflicts. Although the mining disaster was the result of interactions between various factors, it was ultimately the relationship to the means of production that had the greatest influence on the likelihood of a person dying in the mine or as a result of mining. My goal is to contribute to the understanding of both the formation and constant reconfiguration of the working class. I want to extend Thompson's research on experience to include experience in the living, active material world while still emphasizing the actors who identified themselves as working class and their conflict with the mine owners as a class struggle. I therefore propose using the term "more-than-class struggle," which acknowledges the predisposition toward social conflict determined by the relationship of specific actors to the means of production, respects the self-identified form of historical human actors, and, at the same time, recognizes the key role of non-human factors and their ability to actively produce various effects.

Class, nation, and coal in Northern Bohemia

Coal began to form in the North Bohemian Basin during the Tertiary Period. Approximately 22.5 to 17 million years ago, what was a peat bog subsided, was gradually covered by further layers of sediment, and the plant remains were gradually transformed into brown coal. Although its existence and energy potential were known as early as the Middle Ages, it was not until the development of

capitalism, the Industrial Revolution, and the need for fuel for the newly introduced factory machines that intensive mining began in the North Bohemian Basin in the 1850s (Majer, 1983). Large mining companies began to emerge in the area, gradually squeezing out smaller entrepreneurs, so that by the end of the 19th century, most of the mining assets were owned by 11 companies (Majer, 1984). Brüxer Kohlenbergbau-Gesellschaft plays a major role in this text, as it owned the Nelson III mine, among others. These companies changed the landscape beyond recognition with their mining activities. Fields were replaced by large mines and railways (the first routes of which were built specifically for transporting coal), factories sprang up in the surrounding areas, and the whole of northern Bohemia quickly became one of the key centers of heavy industry in the Austrian monarchy (Rumpler & Seger, 2010). In 1926, František Cajthaml Liberté (1926), a social democratic miner and one of the chroniclers of the movement, described this transformation:

> All mining communities in northern Bohemia, surrounded by exhausted coal deposits, present a rather bleak picture. Funnels, usually water-filled depressions above depleted coal seams, are reminders of underground mines, and the wasteland-like terrain of ash and barren soil, which diggers (excavating machines) have turned over and piled up, point to former and still active open mines. The devastated land stretches for miles in the Duchcov and Most regions, and nature, with its winds and rains, is slowly repairing what shareholders from all over the world have done to the landscape, which is otherwise beautiful. And, despite the immediate proximity of the wooded hills of the Ore Mountains and the Central Bohemian Uplands, the air above the coal-mining area is heavy, causing even the birch trees in both mountain ranges to die and the most noble fruit trees to languish (pp. 16–17).

The exponential growth in coal consumption and mining led to large waves of migration around the world (Andrews, 2008). In the Northern Bohemia Basin, thousands of people migrated to the region, mainly from the Czech agricultural interior, to work in the newly opened mines. The population of the North Bohemian Basin roughly doubled in the last two decades of the 19th century. At the turn of the century, the number of miners in the area stabilized at around 30,000, with approximately 90,000 people financially dependent on their work. Roughly 244,000 people lived in the entire North Bohemian Basin. The number of miners did not change much over the next 30 years (Měchýř, 1983). In line with these demographic shifts, the second half of the 19th century also saw a new collective identity of coal miners emerge in northern Bohemia, becoming a prominent center of concentrated class conflict.

The demanding nature of the work, the constant danger of death in the mines, and the region's location, that is, its proximity to Prague and Germany, led to a concentration of socialist power and industrial union radicalism in northern Bohemia. The first major miners' strike in northern Bohemia took place in 1882, leading to the first clashes between the Austrian gendarmerie and the miners (Cajthaml-Liberté, 1926). After a ten-year hiatus caused by severe repression of the labor movement, industrial struggles broke out again in the region in the 1890s and never ceased. Even compared to other coal-mining regions in Bohemia, the North Bohemian Basin was one of the most militant, with large strikes involving a large number of mines followed by others (1892, 1896, 1900, 1906, 1908, 1910, 1912, 1918) (Polák, 2024). This did not change even after the establishment of Czechoslovakia following the collapse of the Austrian Empire in 1918. On the contrary, the 1920s and 1930s were marked by major strike action. The intense strikes in northern Bohemia led, among other things, to miners there having by far the highest wages compared to other miners in the empire and later in the republic (Slačálek & Polák, 2024). Miners organized politically either in social democratic unions (divided into German and Czech since 1910), in anarcho-syndicalist unions (until 1918, when this movement collapsed), national socialist unions (socialist unions that also emphasized a Czech nationalist agenda), in communist unions (after 1921), and in the 1930s, in German Nazi unions, which were banned in 1933 (Konec zbytečného sporu, 1935).

Coal mining also changed the ethnic composition of the region: most people identified themselves as Germans (around 95% in the 1880s and around 88% at the end of the 19th century), and German was the dominant language (Měchýř, 1996). A large wave of migration, mainly from the Czech interior, brought crowds of Czech-speaking people. Northern Bohemia thus became a place of class struggle and ethnic conflict, with some of the German-speaking inhabitants considering the area part of Germany, while some Czech actors emphasized the oppression of the Czech minority. Given that the mine owners considered themselves German, the national conflict was often mixed with class conflict. This led to situations where Czech miners were fired for sending their children to newly established Czech schools, while at other times, Czech miners went on strike demanding the dismissal of German mine officials (Měchýř, 1996). Although German miners were more likely to receive support from their owners, in the event of economic struggles, strikes, or demonstrations, Czech and German miners usually stood side by side (Polák, 2024).

The third type of conflict was the struggle with the dangers of deep mines and the ability of underground materials to kill miners in various ways, either individually or en masse in mining disasters. The most common cause of mining disasters in northern Bohemia was underground gas explosions (e.g., in 1893, 18 people died at the Pokrok mine; in 1894, 19 people died at the Pluto mine; in 1900, 58 people died at the Union mine; and 7 people died in 1923 at the Salm VII mine), but

also from being buried by earth, flooded by water, or caught in fires. Of course, disasters in other coal basins also had an impact on mining, the form of mining, and social conflict with mine owners in northern Bohemia; for example, the disaster in the Moravian-Silesian Basin at the František mine in 1894, when 233 people died in a methane explosion followed by coal dust explosion, or in 1919 at the Nová jáma mine, when 94 people died in a methane explosion (Hromadné hroby horníků, 1934, March 3). Although each of these disasters led to the strengthening of safety legislation, none of the mine owners or management were ever found guilty. This distinction was only earned by the disaster at the Nelson mine in 1934. I will discuss the ability of underground materials in mines to kill and the impact of disasters on the form of social conflict in more detail later in the text.

Relationship between coal and miners

The nature of work in coal mines remained virtually unchanged throughout the 19th century and was little affected by technological modernization. The electrification of mines began at the turn of the century, but in the Czech lands, for example, electricity was not introduced on a large scale in brown coal mines until the interwar years, mainly for underground coal transport. The core of mining work thus remained mechanical coal digging, that is, a direct physical relationship between the miner and the coal (Matějček, 1990). Miners spent a large part of their lives underground, which was largely shaped by their daily experiences of their relationship with the mine and coal. This relationship was not passive, but active and mutual. It was the miners who, according to the plans of mining engineers, physically shaped the underground landscape, cutting away more and more of the underground, breaking the coal into pieces, and sorting it according to quality. Coal, and the underground as such, influenced the miners. In Émile Zola's most famous mining novel, *Germinal* (1885), which enjoyed great popularity in northern Bohemia, the main character, Stéphane, describes his first day underground, when just getting to the mining site was extremely difficult for him and how he had to learn to move around the mine with the help of others:

> She [Catherine, a miner] was obliged to show him how to straddle his legs and brace his feet against the planking on both sides of the gallery in order to give himself a more solid fulcrum. The body had to be bent, the arms made stiff so as to push with all the muscles of the shoulders and hips. During the journey, he followed her and watched her proceed with tense back, her fists so low that she seemed to be trotting on all fours, like one of those dwarf beasts that perform at circuses. She sweated, panted, her joints cracked, but without a complaint, with the indifference of custom, as if it were the common wretchedness of all to live thusly bent doubled over. But he could not succeed

> in doing as much; his shoes troubled him, his body seemed broken by walking in this way, with lowered head. After a few minutes, the position became torturous, an intolerable anguish, so painful that he got on his knees for a moment to straighten himself and breathe (part 1, chapter 4, unpaginated).

The very shape of the underground transformed the miners' physiology and changed the way they walked and held their bodies. This led to a certain stooped posture in many miners. The underground space also caused feelings of anxiety. While mining, coal got onto the surface and into the miners' bodies. Pieces of coal got stuck in their hair or beards, stuck under their fingernails, or in their clothes, which the miners then brought home with them. Coal mining also released various toxic gases, especially methane, but also nitrogen, carbon dioxide, and carbon monoxide. These could cause fainting and, in more serious cases, death. The widows of the victims of the Nelson III coal disaster often described how their husbands fainted on their way home from work, how they suffered from a loss of appetite and would not eat for several days, how they felt sick, how they suffered from headaches, and so on (Regional Court in Most, 1934a).

Miners often politicized their interactions with underground materials such as coal or gas or presented them as a source of political mobilization. A prime example of this can be found in a text written by the anarchist miner Karel Gena-Lichý (1907, November 11) for the syndicalist newspaper *Hornické listy* (coal miners' journal) in 1906:

> When I stop digging to catch my breath, for the umpteenth time – wringing out my apron, wiping sweat from my brow, and scraping sharp splinters of broken coal from my hair and beard – when I wipe the blood from my body, which burns me badly, I curse my master, my work, and the whole world a thousand times over. At that moment, poisoned by the toxic air, exhausted, my head spinning, I am contemptuous and indifferent to everything, and I am ready to stab anyone who comes to give me orders with the pick I always carry with me – in the back, to kick him – like that hard, black stone (pp. 2 – 3).

The miners' relationship to coal and the mines was ambivalent. On the one hand, coal as a key commodity for industrial development was a source of pride and a mobilizing factor, as can be seen, for example, in the programmatic text by miner and syndicalist Václav Draxl (1908): "The result is that those who sacrifice their lives underground to bring the most important product to the surface also have the right to share in the wealth that springs from their labor, which is not the case" (p. 1). At other times, miners in northern Bohemia are described as the "30,000 slaves in northern mines" (Šefl, 1922, p. 96), with the underground depicted as a hostile environment that sets traps for miners

and tries to kill them (Šefl, 1936, p. 78). Finally, miners routinely brought mines and underground materials to life and politicized them in their writings, for example: "Coal dust in the mine? Every experienced miner knows what a terrible enemy it is" (Šefl, 1934, January 5).

However, the most significant impact of underground materials stemmed from their ability to kill on the spot. Miners underground were killed by all the elements, as described, for example, by the miner, journalist, and author of mining books Alois Šefl (1922) in his novel, in which he gives voice to the anarchist agitator Lamač, who motivates other miners to strike:

> We are a thousand-strong crowd of people condemned to death in various ways. We are crushed by coal boulders, we are murdered by floods, we are killed by explosive gases, and we bring our children, barely out of school, to these executions because they had the misfortune to be born to a miner. Such a life can no longer be endured. As one man, the 30,000 slaves in the northern mines must rise up and thunder in the souls of their murderers that they would rather choose death in a desperate struggle than await it daily, in eternal hunger and deprivation, like under Damocles' sword in those accursed holes (p. 96).

This constant presence of death had a huge impact on individuals, but also on entire mining communities (Emmons, 1987; Shackel, 2024). Fear of death is often cited as one of the reasons why miners tended to lead "hedonistic" lifestyles. In this context, northern Bohemia is often described as a region of vice, where miners indulged in excessive drinking, gambling, and casual sex, and where illegitimate children were rife (Šefl, 1922; Cajthaml-Liberté, 1926). However, the constant presence of death also led to the constant re-creation of a collective identity and the formation of bonds of solidarity, with individual miners aware that their lives depended on every other miner working alongside them (Andrews, 2008; Weltz, 2008). Last but not least, as Lamač's words suggest, the danger of death, or rather the unfair distribution of danger, was a source of enormous militancy among miners and one of the factors for political radicalism. As can be seen from the excerpt, miners perceived their lives as a struggle, a struggle that began in the mine with the dangers of the underground and underground materials but continued above ground with the mine owners. The lethality of coal and gas and the frequency with which they killed also meant that this conflict between miners and mine owners was not just about issues such as wages or working hours, but that the struggle for safety played a key role.

History of the struggle for safety

In 1896, the largest strike since 1882 broke out in northern Bohemia, characterized by radical demands, with anarchist miners demanding a 7-hour working day, while the normal working day in mining was 11 or 12 hours (Měchýř, 1983). Half of the ten demands concerned safety, while the rest mainly concerned wages. The miners demanded a reduction in working hours to 6 hours in mines where explosive gases were present. They demanded the introduction of 2–4 representatives at each mine to supervise safety. They wanted to improve the ventilation system, reform specific mining insurance, and, last but not least, "legislative protection for all miners, supervised by inspectors elected by the workers" (Strike Committee, 1896).

The strike was declared treasonous by the mine owners, and the state deployed troops to quickly suppress it. However, similar demands took root in most future miners' demands, strikes, and resolutions and were one of the reasons for the tightening of safety legislation (Měchýř, 1983).

Finally, the miners themselves framed the demand for shorter working hours as a fight for safety, and together with the remuneration system, this had an impact on mortality and the number of serious injuries (Šefl, 1933). Although miners worked "only" eight hours a day in the mid-19th century, with the growing importance of mining and increasing competition, mine owners needed to reduce labor costs and save on the costs per miner (especially insurance); accordingly, working hours were soon increased to 12 hours a day (Matějček, 1990). Unsurprisingly, this led to individual failures among the overworked miners and far more frequent deaths and serious injuries. Among other things, under pressure from the 1882 miners' strike, working hours for miners were reduced to 10 hours in the 1880s, and after a general strike of all Austrian miners in 1900, a 9-hour workday was legislated in the mining industry (Sýkora, 1971). Mine owners responded to these gains by introducing piecework wages (i.e., a fixed reward for each cart of coal mined), which led to many miners disregarding safety measures in the hope of earning higher wages, and the number of accidents and deaths rose again (Šefl, 1933). The piecework wage system thus became the focus of criticism from mining union leaders and strike leaders. Šefl (1933) described it in an article entitled "Uhlí a krev" (coal and blood) for *Hornické listy* in the following words:

> As long as people work in society for wages and as long as their performance is a prerequisite for determining their wages, i.e., as long as piecework rates are set, the workers' efforts will primarily be directed toward achieving the highest possible output, and the question of necessary caution in every job will be pushed aside (p. 3).

In the 1930s, the socioeconomic reality of the economic crisis and the ways in which mine owners responded to it became part of the mine safety issue, a consequence of which was an increase in coal dust in some mines in northern Bohemia.

Crisis, unemployment, rationalization

The social reality at the time of the explosion was significantly influenced by two interrelated processes: the economic crisis and the associated rise in unemployment, and the introduction of rationalization principles. Capitalist rationalization aimed to increase surplus value through various measures designed to increase work intensity. It had two aspects. The first was techno-organizational, involving the introduction of new technology, increased mechanization, electrification, and so on. The second was social, consisting of measures to intensify work (Rabinach, 1990; Skřivánek, 1971). Šefl (1934, January 5) described it in these words:

> A few years ago, mine owners fell in love with a system of scientific work management, and a special commission went from mine to mine, where they conducted rigorous mathematical studies of all possible work movements. They stood all day long with stopwatches in their hands and recorded exactly how long it took to cut a notch, how long it took to drill a mine, load explosives, wait for the smoke to clear, wait for a full cart to leave and an empty one to arrive, wait for the workers to gobble down a piece of bread, wipe the sweat from their faces, how many times a worker had to relieve himself, etc. (p. 1).

The trend toward introducing "scientific methods" of production, that is, efforts to maximize labor productivity through the introduction of "modern technology," thus intersected with the trend of rising unemployment. The economic crisis of the 1930s did not spare northern Bohemia, and it was not just the mining towns that soon began to fill up with unemployed miners, significantly impacting the nature of social conflict. In 1932, after a long strike in response to the dismissal of miners, what was called the Pražské ujednání (Prague agreement) was reached, a compromise between representatives of the miners' unions, mine owners, and the state. The Prague Agreement stipulated that mine owners could dismiss a maximum of 1 percent of their employees per month (Košek, 1977). In practice, rationalization and the economic crisis manifested themselves in the North Bohemian mines in three ways: (1) the introduction of machines for transporting coal from the mine to the surface; (2) savings in operating costs, including those related to safety; and (3) fear of layoffs among workers. All three factors were fully evident at the Nelson III mine and led directly and indirectly to the Nelson disaster on January 3, 1934.

Nelson III Mine, rationalization, dust, and methane

The Nelson III Mine was dug by English businessman William Reffeen, who named it after Admiral Nelson (Šefl, 1936). In 1895, it was bought by Brüxer Kohlenbergbau-Gesellschaft, which owned 18 mines in 1934 (Košek, 1977). The general director of company, who was later arrested, earned half a million crowns a month in 1934, while the average miner's wage was 320 crowns (Košek, 1977). The number of miners employed at the mine in the years before the disaster declined due to layoffs. In 1930, 755 miners worked in the mine and on the surface; in 1931, there were 725; and in 1932, there were 670 (Majer, 1984). In the second half of 1933, just 554 people worked the mine, 147 of whom mined coal; the remaining 347 were drivers (transporting coal in the mine or on the surface), loaders, timbermen, bricklayers, and the like (Volejník, 1934).

The mine had eight districts, of which seven were mined in 14 coal faces. The deepest point in the mine reached approximately 350 m below the surface, and the mine tunnels measured over 80 km. At the end of 1934, miners brought about 17,000 tons of coal to the surface per month (Beran V. & Heveroch B., 1934). Nelson coal was among the highest quality coal, with a high calorific value and high selling price. The main mining method was called the room and pillar system with a caving system. In this method, coal layers in the ceiling of relatively small coal chambers are gradually blasted with dynamite, which break up when they hit the ground. This is a relatively effective method, but it produces a large amount of coal dust and also increases the risk of what is known as a "gob fire." The danger was that in every incompletely extinguished fire in the "goafs," a distillation process took place, during which explosive fire gases were formed. If the fire site was quickly covered, the explosive fumes were forced into any unextinguished fire sites. If these reacted with sufficient air, they could lead to spontaneous combustion or even an explosion (Majer, 1984). For this reason, coal companies employed fire watchers at each mine, who checked for fire hazards and, with the help of bricklayers, walled up old mine workings to prevent air from reaching them. The combination of flowing air; old, incompletely extinguished fires; and stirred-up coal was one of the greatest risks of working in a mine. All of these issues were specifically addressed by the rationalization measures implemented at the Nelson III mine.

In 1932, Brüxer Kohlenbergbau-Gesellschaft replaced the existing mine manager, František Vokáč, with Stephan Beisser, who was given a clear task. He had to reduce the mine's operating costs so that profits from coal sales would continue to grow even during the crisis. Beisser began transforming operations in the mine, which German miners called *Sparregime*, or *špárrežím* in Czech (Neubauer, 1934). In addition to laying off miners, he also began to lay off fire watchers (reducing their number by about half), wind controllers (who check gases and wind flow), and other employees

responsible for sprinkling coal dust (Košek, 1977). According to statements by miners and lower-ranking safety technicians, Beisser also began to cut back on the quality of safety materials (especially wood) (Regional Court in Most, 1934b). Last but not least, under pressure from company management, he introduced shaking coal transport chutes to replace some of the cart drivers. The coal transported along the chutes was tipped seven times along this route, falling from a height of up to 1.3 m in some places. This led to the creation of enormous amounts of coal dust, which was spread throughout the mine by ventilation mechanisms and ventilation shafts (Regional Court in Most, 1934c). Miners described how, in some mining areas, there were layers of dust up to half a meter thick, and especially near the chutes, it was sometimes impossible to see more than 10 cm through the clouds of dust. Some miners said that on their way to and from work, they had to walk through up to 60 m of swirling dust (Schirmer, 1934).

The course and consequences of rationalization in the mines of northern Bohemia, and specifically the introduction of chutes at the Nelson mine, are a striking example of what anthropologists Anna Tsing and Nils Bubandt (2018) call the feral dynamics of capitalism. They point out that industrial modernity strives for total control over inhuman ecologies, but at the same time creates an uncontrollable feral dynamic that allows for the emergence of weedy and unmanaged assemblages that are beyond human control. These are often deadly dangerous, and modern societies are unable to deal with them. This was succinctly described by Šefl (1934, February 9), who described how rationalization filled mines with extremely dangerous coal dust:

> But they didn't care about the consequences of mechanization and rationalization of work. They turned mines, which were otherwise not dangerous, into deadly traps for miners because all their modern mining equipment created a new and terrible enemy for miners: coal dust (p. 1).

Coal dust generated during normal mining operations slowly entered the miners' lungs and became one of the most common causes of premature death among miners. Although owners had long been aware of coal's ability to cause lung disease, they invested considerable resources in denying this fact so that they would not have to face pressure to compensate the sick financially or invest in expensive ventilation equipment (Perchard & Gildart, 2015).

In the 1930s, the risk of a slow death from lung disease in northern Bohemia was compounded by the risk of a rapid and brutal death caused by coal dust explosions, mainly as a result of cost-cutting measures introduced by mine owners. Coal dust explosions, of course, could only occur under specific conditions – there had to be a large amount of it, it had to be quickly stirred up, and it had to be dry and fine (Jičínský, 1934). The miners were aware of the enormous danger posed

by coal dust, and this was one of the reasons why Stephan Beisser was so unpopular, according to statements from both Czech and German miners. Testimony from the miners' widows and other people made it clear that the miners' fear of a dust explosion escalated at the turn of 1933 and 1934. A poem written in German was found in the notebook of one of the miners who suffocated, Josef Rudolf (1934), which shows how widespread the fear of danger was:

> And why is the pit now known far and wide?
>
> Just Beisser's reforms, with his iron pride.
>
> He's famed for cuts and saving schemes –
>
> that cost the miners their lives and dreams.
>
> He builds his career on our blood and pain,
>
> may someone soon bring an end to his gain.
>
> […]
>
> Mr Beisser will build a hall for the dead –
>
> and soon at Nelson, tears will be shed (Rudolf, 1934).

The rationalization measures created enormous amounts of dust, which severely affected the miners' lives. In addition to the large amount of dust that penetrated the miners' lungs and was carried into their homes, it also provoked strong emotions (Hoskins, 1998). As evidenced by various witness statements during the investigation of the disaster, coal dust in Nelson became a frequent topic of conversation. Some miners were afraid to go to work because of it, while others were motivated to negotiate with the owners for more thorough cleaning (see below). Thomas Lemke (2021), referring to Michel Foucault (Foucault, 2000; 2007), states that thing power does not arise on its own, but only in relation to other things, where things include, for example, technological, power, or economic processes, and power itself thus arises only in specific conditions and processes. Coal on its own does not have the power to kill; it is only in relation to economic rationalization, chutes, air flow, and methane that it can turn into an immense, deadly force.

The miners' fears were realized. On January 4, 1934, due to pressure from the rock, the masonry that was supposed to prevent wind from mixing with the incompletely extinguished fire broke, causing a small explosion of accumulated gases, which caused an explosion of coal dust that gradually spread throughout the mine. All but four of the crew were killed. During the rescue efforts, it became clear that some miners had had little time to escape, while others had died instantly. Some were found in a resting position with a cup of half-drunk coffee in their hands, while the limbs of

others were found several meters away from the rest of their bodies (Regional Court in Most, 1934d).

The explosion was immediately followed by rescue efforts, during which temporary coalitions were formed between hostile parties, with surviving miners and mine officials attempting to rescue miners trapped underground. Although the hated Stephan Beisser and the chairman of the works council, Communist František Draxl, went down the shaft together soon after the explosion, only four people were rescued. By the second day, it was clear that no one could still be alive in the mine, which led to a consensus decision to close the mine to prevent the inflow of wind (Majer, 1984). Temporary coalitions were also formed during the funeral ceremonies, which were attended by tens of thousands of people. Czech and German miners laid flowers together, and miners' choirs sang Czech and German songs. At noon, the mine sirens sounded, symbolizing for a moment the unity between the miners and the mine owners (Šefl, 1934). However, this coalition was very temporary. After all, a question now hung in the air: who was responsible for the deaths of 144 people in the Nelson mine?

Who is to blame?

The silence given out of respect for the dead lasted only a short time, and individual actors soon began to express their views on the question of guilt, which varied among the different sides in the triangle of miners, mine owners (or capitalist rationalization), and nature (or force majeure). Regardless of which side spoke, everyone attributed an active role to the mine and underground materials, that is, coal and coal dust. Miners of all political persuasions knew that coal dust was responsible for the deaths, but they blamed the mine owners and the mine manager Beisser for allowing it to happen. Specifically, they blamed the entire rationalization system, which had configured the relationships between people and things in such a way that a disaster could occur (Lanc, 1934).

On January 16, 1934, a socialist member of parliament Josef Lanc (1934) explicitly attacked rationalization: "This great misfortune and catastrophe itself is the result of the austerity and rationalization system that is being hastily implemented in all mines in our republic by the mine administrations." (p. 1). Miner and journalist Alois Šefl (1934e) elaborated on his argument in *Hornické listy*:

> Mining companies mine coal for profit, not to provide coal to the general public. That is why profit is the be-all and end-all of their actions. [...] And now, let someone ask the

> miners how much time and energy they have to comply with safety regulations to protect their health and lives in this frantic drive to push everyone to the highest possible performance. (p. 4).

The mine owners were not so sure. According to initial official statements, there could be two culprits – nature or the miners, as representatives of the Association of Mining Companies and Mining Engineers in Moravian Ostrava (Svaz závodních dolů a báňských inženýrů v Moravské Ostravě, 1934) wrote:

> The extraction of mineral wealth often takes place under very difficult conditions, involving a struggle with nature and its unbridled forces, whose attacks are often unpredictable, and therefore, man is subject to them even when he has done everything in his power. […] After all, it may also be the fault of an individual. Press attacks undermine the necessary authority of senior mine officials and discipline among the workers, without which efforts to improve miners' safety become impossible and futile, even with the best regulations and the greatest efforts of the relevant mining authorities and responsible engineers (p. 40).

The blame was soon discussed at the national level. The left-wing media remained fairly consistent in its criticism of rationalization, whereas the right-wing media continued to oscillate between blaming the miners and nature. For example, *Brüxer Zeitung* (Most gazette), a newspaper close to the mine owners, spread a report, later refuted, that an earthquake was to blame for the disaster (Die Ossegge Katastrophe, 1934, January 18).

For several weeks, the Nelson mine was in the spotlight across the entire society, with prominent cultural figures and politicians expressing their views on the question of guilt. In these discussions, the various parties mobilized, in several ways, the theme of the active role of the underground, underground materials, and nature in general. Coal dust also strongly mobilized the company against the director Hermann Löcker, Stephan Beisser, and six other direct employees. The enormous spread of coal dust became an important media topic and was also addressed by state authorities (Košek, 1977).

The day after the disaster at the Nelson mine, an investigation commission officially appointed by the Ministry of Public Works arrived and attempted to descend into the mine before it was closed. That same day, they began questioning witnesses, primarily miners from the morning shift, but also mine officials (Majer, 1984). The commission gradually grew to 21 members, including three representatives of the district mining authority in Moravská Ostrava and seven experts. Some

were closer to the mine owners in terms of class and political affiliation, for example, a district official from Lomská uhelná společnost (the Lom coal company); others, however, were more sympathetic to the miners (former mining inspector Jindřich Schirmer). The commission also included three state prosecutors, three representatives of the miners' unions, and three miners from the Nelson mine works council (Communist František Draxl, National Socialist Ferdinand Stráda, and German Social Democrat Wilhelm Kraupe) (Regional Court in Most, 1934e).

On the fourth day, government officials decided that the mining administration had not taken sufficient safety measures. The fact that the mining administration was aware of the danger posed by coal dust, knew where the dust was located, knew how to remove it or mitigate its explosive effects (by spraying it with water), but failed to do so to a sufficient extent, led to the arrest of the eight people mentioned above (Regional Court in Most, 1934f). Most of them spent about a month in custody, from which they were released after paying bail totaling 3,565,000 crowns (Regional Court in Most, 1934g). Stephan Beisser spent another three months in custody. However, the investigation lasted another four years, during which time the entire mine was examined by an investigative commission.

Investigation and policy

The investigation consisted mainly of questioning witnesses and the accused, surveying the mine, and conducting physical and chemical experiments. Three types of relationships were investigated: relationships between people (primarily mining engineers and miners), relationships between people and materials, and, last but not least, relationships between materials and materials. However, all three types of relationships addressed the nature of the rationalization policy. Finally, one of the questions that the court experts had to answer was whether the austerity measures were to blame for the mining disaster.

The investigation into relationships between people focused primarily on the distribution of safety work, the attitude of mine management toward inspections, and the opportunities for miners to complain. The investigation commission examined, in particular, the number of workers and engineers responsible for safety, which had been reduced by about half in the preceding years (see previous subchapter). The commission also encountered a number of complaints claiming that, for economic reasons, the workers responsible for safety had often been sent to work as drivers (Regional Court in Most, 1934h). A recurring theme in the miners' statements was the performative nature of the inspections, which were known about in advance. One of the miners described it in

these words: “We knew and laughed when the dust was sprinkled, that some commission would come” (Regional Court in Most, 1934ch). The miners also often pointed out that Stephan Beisser explicitly threatened them with losing their jobs if they complained in the mine (Regional Court in Most, 1934i).

The investigation into the relationship between people and materials, like the previous questions, was an inquiry into the nature of the mine’s safety infrastructure. At a general level, investigators sought to determine who was responsible for safety and how, examining closer relationships specifically: Who was responsible for sprinkling dust, and how often did they do so? Who cleared the dust and how? Who was responsible for the water hoses? Who bricked up potential fire sites? What materials did they receive for this? Who provided them, and what was their quality? This investigation clearly showed that there were long-term, daily negotiations underground between various parties, not only between safety technicians and mine manager Stephan Beisser, but also between him and the miners. The negotiations mainly concerned the number of people assigned to safety work and the quality and quantity of materials. Every day, the mine engineers of each district wrote down in the logbook how many people they would need, and Stephan Beisser decided how many they would actually get:

> 9 men were requested to operate the pumps and only 6 were approved by the plant; 17 fire watchers were requested and approved; 10 people were requested to maintain the cableway, and only 6 were approved [...] 6 people were requested for timbering at No. 2, but this was crossed out. 6 people were requested for timbering at No. 7, and this was crossed out [...] in district V, 6 people requested for bricking up the foundations at No. 23 were crossed out (Regional Court in Most, 1934j).

Another miner and, later, mine carpenter Vilém Köhler, who sometimes lined passages and sometimes built walls where air needed to be stopped, described these negotiations as follows to the Regional Court in Most (Regional Court in Most, 1934b):

> Under Mr. Vokáč, good wood was used for the walls, old but sound. He was strict about not using rotten wood. As far as materials are concerned, especially nails, I would like to point out that I did not always receive the quantity I requested. I also never received as many planks as I requested. I know that according to the regulations, there should have been 50 planks in the material store in each district of the pit. When I asked for them, however, I only received 35 pieces for each district, so there could not have been 50 there. We did not receive the requested quantity (nor nails for the mine track) because Beisser was economizing on everything.

In a similar way, everything possible was negotiated at the mine. Fire watchers negotiated the number of people needed to wall up dangerous places. Bricklayers negotiated the quantity and quality of hoses. Negotiations took place on whether the road would be newly lined with new wood or whether they would rely on the old wood, on the quantity of dynamite, lime, and so on. František Draxl, member of the works council, miner, and communist, described how he sometimes negotiated directly in the mine, sometimes tried to enforce greater safety in the logbook, and sometimes negotiated in the mine office or at monthly meetings of the works council, where representatives of the miners met with the mine management (Regional Court in Most, 1934j).

The most serious negotiations concerned the cleaning of coal dust, which was again discussed by mining engineers and miners with Beisser. The fact that large amounts of dust could cause an explosion was known to the miners, mining engineers, and mine management alike. Such negotiations were literally a matter of life and death and were essentially of a political nature. The class conflict between miners and mine owners did not begin where we are very familiar with it – on the surface during strikes, demonstrations, direct action, parliamentary negotiations, and the like – but underground, in the daily struggle over whether the proceeds from coal sales should be invested in greater safety or in increasing the profits of mining companies. The class-based conflict thus initially took place underground during the work process. It was mobilized by the material nature of the underground, which also became a topic of negotiation. The ability of things to actively influence events—especially the ability to injure and kill—also played a role in this process. That is why I describe this conflict as more-than-class.

If the investigation into the relationships between people, and people and materials was intended to provide investigators with an answer to the question of whether the mine management had done enough to ensure safety in the mine, the investigation into the relationships between materials and materials sought an answer to the question of whether the management could have prevented the disaster at all. In other words, many things were investigated, including whether it was possible for a human being to overcome this force. While the reason for the extent of the disaster was clear – coal dust and the transport chutes were to blame – the origin of the explosion was not. Was the coal dust so powerful that it could ignite on its own? Or did the fire gases ignite? Or did the miners set something on fire? Investigators therefore examined the properties of specific gases at the Nelson mine to determine whether gas self-ignition could have occurred and under what conditions. They examined where the air flowed (the presence of air is one of the conditions for the spontaneous combustion of gas and dust), where the coal dust was carried by the air, and the air temperature at various locations in the mine. In addition, the properties of coal dust were examined, in particular, the conditions under which the local coal dust could explode and under which

conditions dust could self-ignite. Since coal dust is particularly dangerous when stirred up, the places where this was the case were also investigated, that is, not just when blasting in the coal seam or tipping coal onto chutes (Schirmer, 1934).

While thing power was investigated by the officials, it also remained a political issue. Throughout the investigation, miners wrote texts about rationalization, which configures relationships between different things in such a way that it activates the deadly capabilities of underground materials. Mine owners continued to mobilize the uncontrollability of nature in their magazines, as in this example:

> Even the greatest accumulation of responsibility on the shoulders of an entrepreneur will not prevent accidents from happening from time to time, for which the entrepreneur is not at all to blame, as they were caused either by the carelessness of workers or by natural forces that even the strictest human laws cannot control. (Smékal, 1934)

Investigators finally agreed that the disaster was caused by the self-ignition of fire gases. An important argument reducing the owners' liability was the fact that these fire gases were generated at the Nelson mine by, among other things, strong rock pressure, that is, inhuman force. And although spontaneous combustion of gas can be prevented, it is much more difficult than with dust, as it can occur in dozens of places in a mine, and it can take a relatively long time to detect the spread of gas. The very fact that the gas is invisible and more difficult to remove led to a reduction in the guilt of the mine owners (Parma & Černík, 1934).

There was no consensus among the court experts as to whether the mine owners were responsible for the spread of dust. Those who were closer to the coal owners due to their class or political position, such as Josef Würdig, an employee of a mining company in Lom, downplayed the influence of the owners and mine manager Beisser on the spread of dust (Würdig & Hruška, 1934). Other court experts, notably Vojtěch Beran, a professor at the University of Mining in Příbram, and Bohumil Heveroch, a state councilor, had no doubts about the influence of the owners and Beisser on the spread of coal dust, believing that the causes of the explosion lay in cost-cutting measures (Beran & Heveroch, 1934). On the other hand, there was consensus that neither the owners nor Stephan Beisser were responsible for the spontaneous combustion of the fire gas (Parma & Černík, 1934).

Decision on guilt

The decision on guilt played a role in the investigation several times. In the early days, the fact that the mine owners and management had failed to remove visible and removable coal dust led to the early arrest of eight people (Odpovědní činitelé z "Nelsonu" protestují proti zatčení, 1934, January 9). Six months later, new legislation on mine safety was passed. The fact that miners had warned of the dangers of coal dust while mine owners downplayed it or even punished those who complained served as a key argument for the introduction of state-paid inspectors from among the miners (Houser, 1960). On the contrary, the fact that the investigation commission began to lean toward the conclusion that the source of the explosion itself was probably spontaneous combustion of coal gas led to a reduction in the guilt of the mine owners and its management. Due to the uncertainty surrounding the physical and chemical properties of the gas – in layman's terms, it appears quickly, is invisible, and can ignite spontaneously – investigators began to form the opinion that the explosion was probably not caused by human error (Parma & Černík, 1934).

The final decision was postponed until it was possible to inspect the entire mine (Majer, 1934). The investigation was concluded in August 1938. Even after three and a half years, during which the investigation commission inspected and analyzed every meter of the mine, it was not possible to determine exactly where the disaster began. The investigators continued to insist on the version of spontaneous gas ignition, specifying one area where the explosion occurred; however, even there, they determined that the explosion could have occurred in several different places. They thus emphasized the random nature of the process of gas spread and explosion underground and, in the question of guilt, accepted the argument of an uncontrollable force majeure (Majer, 1984). Specifically, on the question of the cause of the disaster, the investigators accepted the argument of a court expert: "It was impossible to prevent the outbreak of mine fires, which must be considered the initiator of the disaster at the Nelson mine. This also made it impossible to prevent the accumulation of explosive fire gases" (Parma & Černík, 1934).

The main defendants were fined for failing to comply with safety measures relating to dust removal, which were paid by Brüxer Kohlenbergbau-Gesellschaft. No specific culprit was identified for the disaster, and no one received the two- to three-year prison sentence that was possible under the laws at the time. The results of the investigation did not mobilize the miners to continue their struggle as they were largely overshadowed by growing international tensions. In September 1938, the Czechoslovak borderlands were annexed by Nazi Germany. The Nelson III mine thus became part of the Third Reich, and the disaster ceased to be a political issue for several years (Majer, 1984).

Conclusion

Shine on me, you golden sun,

light my final homeland mile,

bless the heart where love's begun,

[: and dry these tears for just a while. :]

Blossomed meadows, forests deep,

never shall I see you more.

Nevermore my love shall greet,

nor faithful friends as once before.

–Excerpt from the text Shine on me, golden sun (Vilani, 1844)

The introductory text to this conclusion is an excerpt from a Czech patriotic folk song sung by a miners' choir at the first of many funerals for victims of the Nelson mine disaster. Its lyrics, often interpreted as an immigrant song, may also refer to the strong environmental awareness felt by the miners. The sun, which contrasts so starkly with the darkness underground, also symbolized hope for a brighter future where miners would not die in the mines. Similar words filled the funeral speeches of union leaders, who called for the miners' sacrifice not to be in vain but to be transformed into an impetus to strengthen safety measures. Mining disasters were part of the miners' struggle, which took place both underground, in an unfavorable working environment, and with superiors who cut corners on their safety (Šefl, 1934, June 15). Every mining disaster also led to a reassessment of existing safety regulations, and the disaster at the Nelson mine similarly led to the introduction of a long-sought mining goal: independent mining labor inspectors and stricter legislation on coal dust, which also changed the negotiating field for the next mining disaster.

In this study, I examined the irreconcilable conflict between miners and mine owners from the perspective of new materialism. In other words, I examined the relationships between people as well as the active influence of the material environment in which these relationships occurred. In my opinion, the new materialist perspective offers two key advantages for researching the working class and class-based conflicts. First, it can examine the specifics of particular sectors of the working class and the class-based conflicts that affect them. In the case of mining, this perspective highlights the safety struggles based on coal's lethal potential and explains the miners' frequent radicalism, considering the contrast between the risks they take and the minimal risks mine owners take during the work process. Second, it helps us analyze the subtle dynamics of specific conflicts. In this study, the main focus was on the question of guilt concerning whether dust or gas killed.

I therefore consider the conflict between miners and mine owners to be a more-than-class conflict. Although it was a conflict between two social groups with different interests, it was intertwined with the miners' struggle with the inanimate but active underground, which the miners themselves perceived as part of their conflict with the owners. For a deeper understanding of the nature of this conflict, I believe it is important to examine both interpersonal class relations and the relations between people and the inhuman forces that surround them.

The relationship between miners and coal and the underground was strong, dynamic, and ambivalent. The miners' struggles with coal – whether it was mining, which drove the entire industry forward, or its ability to kill – were a powerful source of renewal for the collective identity of the mining workforce. The different risks arising from the affinity of miners and mine owners to coal exacerbated class conflict on the one hand, but on the other led to greater solidarity among miners across political and national identities.

While social scientists today debate how we can think about the agency of coal and the underground (Reinert, 2016), the actors (miners, but also mine owners!) were clear about this: coal killed, the underground took revenge, higher powers intervened, gases punished, dust murdered. The active role of coal was finally acknowledged by investigators, for whom, at certain points in the investigation, relationships between people ceased to play a primary role, and they began to investigate the properties of materials and how they interact with other things. The properties of materials thus became not only a question of guilt but also played an important role in the political battle, whether in the investigation or in the enforcement of a new law introducing mining inspectors. Ultimately, it was the visibility and tangibility of coal dust that politically mobilized the general public so strongly that it led to the first-ever arrest of mine owners for a mining disaster in the Czech lands and, by extension, in Central Europe. However, it was also the invisibility of the gases and the randomness of their formation that led to the coal barons being saved from imprisonment.

References

Andrews, T. G. (2008). *Killing for Coal. America's Deadliest Labor War*. Harvard University Press.

Bennet, J. (2010). *The Vibrant Matter. A Political Ecology of Things*. Duke University Press.

Beran, V. & Heveroch B. (1934). [*Report for the Nelson III Mine Investigation Commission*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Bubandt, N. & Tsing, A. (2018). An Ethnoecology for Anthropocene: How A Former Brown-Coal Mine in Denmark Shows Us the Feral Dynamics of Post-Industrual Ruin. *Journal of Ethnobiology* 38(1), 1 – 13. https://doi.org/10.2993/0278-0771-38.1.001.

Cajthaml-Liberté, F. (1926). *Severočeští horníci. Obrazy bojů podzemních pariů*. Na Zdar.

Coole, D., & Frost, S. (eds.). (2010). *The New Materialisms: Ontology, Agency, and Politics*. Duke University Press.

„Die Ossegge Katastrophe im Kammer-Plenum“ (1934, January 18). *Brüxer Zeitung* 87 (14), 1.

Draxl, V. (1908, January 31). Základní pojem odborové organizace horníků. *Hornické listy* 3(4), 1.

Emmons, D. (1987). An aristocracy of labor: The Irish miners of Butte, 1880–1914. *Labor History* 28(3), 275 – 306. https://doi.org/10.1080/00236568700890171.

Foucault, M. (2000). The Subject and Power. In Faubion J. D. (ed.). *Michael Foucalt. Power. Essential Works of Foucault 1954 – 1984* (pp. 326 – 348). The New Press.

Foucault, M. (2007). *Security, Territory, Population: Lectures at the Collège de France, 1877 – 78*. Palgrave Macmillan.

Gena-Lichý, K. (1906, November 11). Stromy, práce, mozek. *Hornické listy* 2(22), 2.

Grosz, E. (2005). *Time Travels: Feminism, Nature, Power*. Duke University Press.

Haraway, D. (1991). *Simians, Cyborgs, and Women: The Reinvention of Nature*. Routledge.

Harvey, D. (1996). *Justice, Nature, and the Geography of Difference*. Oxford University Press.

Hekman, S. (2008). Constructing the Ballast: An Ontology for Feminism. In S. Alaimo & S. Hekman (eds.), *Material Feminisms* (pp. 85 – 118). Indiana University Press.

Hodder, I. (2012). *Entangled: An Archaeology of the Relationship between Humans and Things*. Wiley-Blackwell.

Hoskins, J. (1998). *Biographical Objects: How Things Tell the Stories of People’s Lives*. Routledge.

Houser, J. (1960) *Vývoj hornického pojištění. K bojům našich horníků za kapitalismu*. ČSAV.

“Hromadné hroby horníků” (1934, March 3). *Hornické listy*, 27(13), Duchcov, 1.

Hruška O. & Würdig, J. [*Report on the disaster at the Nelson III mine*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Ingold, T. (2004). Beyond Biology and Culture: The Meaning of Evolution in a Relational World. *Social Anthropology* 12(2), 209 – 221. https://doi.org/10.1111/j.1469-8676.2004.tb00102.x.

Jičínský, J. (1934). [*Report on the disaster at the Nelson III mine*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Box 488, File Tk 40/34). Státní oblastní archiv Litoměřice.

Konec zbytečného sporu (1935, March 29). *Hornické listy*, 28(13), 1 – 2.

Košek, Z. (1977). *Nelsonská tragedie*. Severočeské nakladatelství.

Kuřík, B. (2022). Towards an Anthropology of More-Than-Human Resistance: New Challenges for Noticing Conflicts in the Plantationocene. *Sociální studia/Social Studies* 19(1), 55 – 72. https://doi.org/10.5817/SOC2022-29552.

Lanc, J. (1934, January 18). Sněmovna chrání hornické a státní zájmy. *České slovo* 26(14), 1.

LeCain, T. J. (2015). Against the Anthropocene. A Neo-Materialistic Perspective. *International Journal for History, Culture and Modernity* 3(1), 1 – 28. http://doi.org/10.18352/hcm.474.

LeCain, T. J. (2017). *The Matter of History. How Things Create the Past*. Cambridge University Press.

Lemke T. (2021). *The Goverment of Things. Foucault and the New Materialisms*. New York University Press.

Majer J. (1984). *Katastrofa na dole Nelson 1934*. Národní technické muzeum v Praze.

Majer, J. (1983). Hornictví. IN F. Jílek (ed.), *Studie o technice v českých zemích 1800 – 1918, I. (*pp. 105 - 164*)*. Národní technické muzeum.

Matějček, J. (1990). *Formování sociální skupiny horníků uhlí v českých zemích*. Slezský ústav ČSAV v Opavě.

Měchýř, J. (1893). *Bouřlivý kraj*. Severočeské nakladatelství.

Měchýř, J. (1996) České národní menšinové školství v Čechách, 1867–1914. In K. Zdeněk (ed.). *Sborník k problematice multietnicity* (pp. 67 – 84). Filozofická fakulta Univerzity Karlovy.

NAVICKAS, K. (2018). A return to materialism. Putting social history back into place. In Handley S., McWilliam, R., Noakes, L. (eds.), *New Directions in Social and Cultural History* (pp. 87 – 108). Bloomsbury Publishing.

Neubauer, J. (1934, January 10). 142 hornických životů obětí katastrofy na dole „Nelson.“ *Na zdar!*, 39(2), 1 – 3.

O'Gorman, E. & Gaynor, A. (2020). More-Than-Human Histories. *Enviromental History* 25(4), 711 – 735. https://doi.org/10.1093/envhis/emaa027.

Olsen, B. (2010). *In Defense of Things: Archaeology and the Ontology of Objects*. Bloomsbury Publishing PLC.

"Odpovědní činitelé z „Nelsonu“ protestují proti zatčení" (1934, January 9). *Národní listy. Večerník* 74(8), 1.

Parma, A. & Černík, B. (1934). [*Summary of the expert opinion*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, IX., Box 487). Státní oblastní archiv Litoměřice.

Perchard, A. & Gildart, K. (2015). „Buying brains and experts.“: British coal owners regulatory capture and miners´ health, 1918 – 1946. *Labor History* 56(4), 459 – 480. https://doi.org/10.1080/0023656X.2016.1086555.

Polák, M. & Slačálek, O. (2024). The Story of Czech Anarchism: Ideas and Practices of Czech Libertarians, 1883-1930. *Anarchist studies* 32(2), 15 – 43. https://doi.org/10.3898/AS.32.2.02.

Polák, M. (2024). „Přímou akcí za osvobození proletariátu“ Anarchističtí horníci v severozápadních Čechách 1896-1930. In Kuřík, B., Magincová, D., Slačálek, O. (eds.), *Nečekáme nic od reforem. Kapitoly o českém anarchismu* (pp. 75 – 106). Herrmann & synové.

Rabinach, A. (1990) *The Human Motor. Energy, Fatigue and the Origins of Modernity*, Basic Books.

Regional Court in Most. (1934a). [*Testimony of witness Emma Schindlerová*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34 II., Box 484). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934b). [*Testimony of witness Vilém Köhler*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934c). [*Testimony of witness Josef Voříšek*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34 I., Box 483). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934ch). [*Testimony of witness František Fenikbauer*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, I. Box 483). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934d). [*Clear report on the progress of reclamation work at the Nelson Pit*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934e). [*Protocol of the Investigation Commission*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934f). [*Proposal by the public prosecutor to impose detention*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34 I., Box 483). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934g). [*Proposed amount of bail*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 489). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934h). [*Testimony of witness Ferdinand Strada*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934i). [*Testimony of witness František Draxl*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, I. Box 483). Státní oblastní archiv Litoměřice.

Regional Court in Most. (1934j). [*Excerpt from the logbook*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Reinert, H. (2016). About a Stone. Some Notes on Geological Conviviality. *Environmental Humanities* 8(1), https://doi.org/10.1215/22011919-3527740.

Rudolf, J. (1934). [*Untitled poem*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Box 488, File Tk 40/34). Státní oblastní archiv Litoměřice.

Rumpler, H. & Seger, M. (eds.). (2010). *Die Habsburgermonarchie 1848–1918, Band IX/2: Soziale Strukturen*. Verlag der ÖAW.

Schirmer, J. (1934). [*Expert opinion by Ing. Jinřicha Schirmera*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34, Box 488). Státní oblastní archiv Litoměřice.

Šefl, A. (1922). *Za lepší budoucnost. Román ze života poddaných krále uhle*. Hornické listy.

Šefl, A. (1933, Juli 7). Uhlí a krev. *Hornické listy*, 26(27), 3.

Šefl, A. (1934, February 9). Od olejového „kukuče" k elektrické lampě, ale stále hromadné hroby horníků. *Hornické listy* 27(6), 1.

Šefl, A. (1934, January 26). Co říkají horníci. *Hornické listy* 27(4), 4.

Šefl, A. (1934, January 5). Hrob 140 horníků. *Hornické listy* 27 (1), 1 – 5.

Šefl, A. (1934, June 15). Báňská inspekce v dolech. *Hornické listy* 27(24), 1 – 2.

Šefl, A. *Uhlí a smrt.* (1936) *Kapitola z hornických tragedií*. Jednota československých horníků a hutníků v Mostě.

Shackel, P. A. (2024). Recovering psychological trauma in coal mining communities. *Labor History*, 1–14. https://doi.org/10.1080/0023656X.2024.2426017.

Singleton, J. & Reveley, J. (2024). 'Dancing in the halls of the rich'? Fatal mine explosions and pro-employer bias in the UK mining inspectorate, 1870-1900. *Labor History* 65 (1), 40 – 56. https://doi.org/10.1080/0023656X.2023.2243456.

Skřivánek, F. (1971). *Stávkové hnutí horníků severočeského hnědouhelného revíru v letech 1918 – 1938*. Oblastní muzeum Teplice.

Smékal, F. (1934, March 17). O bezpečnosti v dolech. *Báňské rozhledy* 9(11), 1 – 2.

Stewart, P. (2016).) The centrality of labor time in South African gold mining since 1886. *Labor History* 57(2), 170 – 192. https://doi.org/10.1080/0023656X.2016.1161137.

Strike Committee (1896). [*Demands of miners in northern Bohemia*]. Mostecká hnědouhelná akciová společnost v Mostě. Stávka v září 1896. (NAD 1301, Box 145, File 1301. Státní okresní archiv Most.

Svaz závodních dolů a báňských inženýrů v Moravské Ostravě. (1934, January, 25). Ke katastrofě na hnědouhelném dolu „Nelson III“ v severních Čechách. *Hornický věštník a hornické a hutnické listy* 35(2), 40.

Sýkora, V. (1971). *Mostecká stávka v roce 1906 a první volby podle všeobecného hlasovacího práva*. Horizont.

Thompson, E. P. (1963). *The making of the English Working Class*. Victor Gollancz Ltd.

Vilani, D. M. (1844). *Lyra a meč: básně věnované Slovanskému národu*. J. Pospíšil.

Volejník, B. (1934). [*Report by mining council member Ing. Dr. Bohumil Volejník on the inspection of the Nelson mine in Osek on October 3 and 4*]. Krajský soud v Mostě, 1850 – 1949. Spisy trestní věci Inž. Štěpán Beisser a spol. (Tk 40/34 II., Box 484). Státní oblastní archiv Litoměřice.

Weltz, E. D. (2008). Class formation and labor protest in the mining communities of Southern Illinois and the Ruhr 1890 – 1925. *Labor History* 27(1), 85 – 105. https://doi.org/10.1080/00236568508584827.

Zola, E. (1895). *Germinal* (H. Ellis, Trans.), J. M. Dent & Sons Ltd. (Original work published 1885). https://www.gutenberg.org/cache/epub/56528/pg56528-images.html. Unpaginated.