

Culture of Silence: Mining in the North Country and Living on the Periphery

When I first began this project my image of a mining operation was not pretty. I envisioned a large number of dirty men working in dangerous conditions, damp and deep underground. On the surface, large mounds of waste rock and tailings were piled, obliterating any sign of life. I suspect most people have this image of mines. Yet is this image accurate; does it reflect contemporary situations? Elizabeth Grossman, for example, in her recently published book, *High Tech Trash*, talks about visiting mines in Sweden and Arizona where copper, silver, tin, and other precious metals are removed for eventual processing into electronic goods. These mines are clean and safe. Still, some mines at the present time, especially in developing countries, are as I imagined. The difficult circumstances of the miners recently trapped underground in Chile demonstrate this claim. In any event, my initial perception of mining in the North Country was one of men covered in dust and suffering acute health effects that would develop into long term disease.

I started my research looking at the health effects of local miners. My interest in this topic was spurred by a course I took during the 2010 fall semester in which I read *Silent Spring* by Rachel Carson and *Our Stolen Future* by Theo Colburn, Dianne Dumanoski, and John Peterson Myers. I was interested in the hidden health impacts of environmental contaminants. Initially I focused my independent study on the health effects of talc mining. I conducted a fair amount of research using both web-based and peer-reviewed literature. I contacted lawyers who had dealt with litigation on behalf of miners who had been affected by talc. I also talked with a manager of one of the local talc mines, and I looked exhaustively through local newspapers and public records to find former miners who might be willing to talk to me. Whether conversing with managers or workers, I ran into a wall of amazing silence. For example, when I called

one former talc miner, he told his granddaughter who answered the phone that “he’d rather not get involved on the phone or in person.” It was discouraging to reach such dead ends.

At this point, it was recommended to me to read some social and political theory about mining in order to put into context my experience up to this point. This theory, which includes such things as the core periphery model, internal colonization, and dimensions of powerlessness, helped me to understand the silence I encountered. It also provided a framework for me to undertake a broader study about the history of talc mining and communities in the North Country that are economically dependent on the mining industry. This theory has been extensively applied to describe coal mining in Appalachia. The first section of my thesis explains some of this theory.

The basic argument of my thesis is as follows: Mining in North Country communities reflects conditions of geographical peripheries similar to those that have been documented in Appalachia. In other words, economic and social conditions, which include issues of personal and environmental health, are relatively the same in Appalachia and northern New York. Since both these areas are in the periphery, they face similar challenges. Among these challenges are an unbalanced structural relationship between peripheral regions and geographical cores, which wield considerably more corporate and political power. As a consequence, peripheries have grown increasingly dependent on core regions, which extract resources from the periphery, while fostering social quiescence in a number of ways, from the manipulation of labor to the subtle shaping of attitudes that promote the values of the core.

After discussing the theoretical constructs and their application to Appalachia, the thesis develops a history of three kinds of mining in northern New York. Iron ore mining is described for Lyon Mountain and Star Lake. Talc mining is then described for the Balmat/Fowler area. Finally, zinc mining is described for Balmat/Edwards and Pierrepont. The final section of the paper shows how these examples of mining in the North Country exemplify the theoretical ideas. It also draws some direct parallels between northern New York and Appalachia.

To conduct my research, I read the works of academic theorists. This included a number of classic texts as well as a small amount of peer reviewed articles. I also read the works of local historians, again both books and articles. In addition, I made site visits to many of the mining operations and on one occasion met with a local historian. I utilized what social scientists call a snowball interviewing approach to identify people whom I might contact. I communicated via email with several additional individuals. As well, I searched newspaper archives of the *Watertown Daily Times* and *Plattsburgh Press Republican*, to accomplish several tasks; first to help me understand the relatively recent history of mining operations and second to identify individuals with whom I might speak. Overall my methods have been eclectic, combining classic approaches utilized in studies of local history and ethnic approaches utilized in the social sciences.

The Core Periphery Model

The core periphery model is used to explain the organization of capitalist production within a regional context. First proposed by John Friedmann in 1966, the core periphery model is composed of two interrelated parts: an urban core that boasts of economic progress and a rural periphery that lags behind the core.¹ According to Lewis Mumford's 1938 study, *The Culture of Cities*, the city is the heart of the body and "pumps blood of energy, people, and commerce to all parts of the regional organism."² Periphery regions are defined as areas outside the core. With increasing distance from the core, levels of wealth, development, and standards of living typically decrease. There are fewer jobs, services, and investments. The poverty level rises.

As the core expands in economic prosperity, it relies on its peripheral regions for economic and political success. It exploits the resources of the periphery and gathers the support of peripheral voters. Although economic prosperity in the core generates

¹ John Friedmann. *Regional Development Policy-A Case Study of Venezuela* (Cambridge: M.I. T. Press, 1966), 501.

² Ibid., 507.

wealth, the peripheral areas enjoy only marginal benefits from this success, and income disparities between the core and periphery are exacerbated.³

The core periphery model is rooted in colonial attitudes that form an “economic landscape” of inequality, composed of forces directed outward from the core, and on forces directed in towards the core.⁴ The colonialism of peripheral areas occurs when outside industries gain control, exploit the resources of the peripheral region, and then dominate the people of that region.⁵ Raw material extracted from the periphery is cheaply sold to core areas where it is consumed or manufactured into a product, and then sold back to the periphery as well as other national and world markets. Peripheral areas are not guaranteed a trickle-down of wealth from the core.⁶ Rather, economic inequities are common because the periphery is geographically or politically isolated from the core, and because large corporations colonize the periphery without the economic interests of the local residents in mind. The greater the colonization of the periphery by the core, the less able the periphery is to resist the colonization and demands of the core.

How Appalachia Can Be Explained by the Core Periphery Model

The Appalachia periphery can be separated into two parts: the exterior periphery, which has greater access to resources because of closer proximity to the core, and the interior periphery, which lacks access to resources because of a greater distance from the core.⁷ “Northern and southern Appalachia are considered as the exterior periphery while central Appalachia represents the interior periphery.”⁸ Northern

³ Clement Tisdell. *Natural Resources, Growth, and Development: Economics, Ecology, and Resource Scarcity* (New York: Praeger Publishers, 1990), 132.

⁴ Luis Lanaspa. "Multiple equilibria, stability, and asymmetries in Krugman's core-periphery model." *Papers in Regional Science* 80, no. 4 (2001): 425.

⁵ Helen Lewis. *Colonialism in Modern America: The Appalachian Case* (North Carolina: The Appalachian Consortium Press, 1978), 3.

⁶ Tisdell, *Natural Resources*, 132.

⁷ Tyrel Moore. "Core-Periphery Models, Regional Planning Theory, and Appalachian Development." *Professional Geographer* 46, no. 3 (1994): 319.

⁸ Ibid.

Appalachia refers to areas of Pennsylvania, southeastern Ohio, and West Virginia's northern panhandle; southern Appalachia includes 'western North Carolina, northern Georgia, northern Alabama, and northeastern Mississippi.' Central Appalachia comprises most of eastern Kentucky, eastern Tennessee, western Virginia, and West Virginia.⁹

Until the early 20th century, residents of central Appalachia largely practiced subsistence agriculture and living with "social organization based on kinship." However, with the introduction of bituminous coal mining in the early 20th century, the economic basis of communities changed.¹⁰ Immense coal pockets in central Appalachia supplied up to 65% of the United States' coal in 1974. Described as the "black gold of the energy era,"¹¹ Appalachian coal promised great wealth, but Appalachia's people remained landless and poor because the land's resources were owned and controlled by the British company, American Association Ltd. People migrated to the coal camps for work, and the coal company provided services and housing for the workers and their families. Company towns developed with houses, stores, meeting houses, churches, schools, and hospitals all owned and controlled by the company. The coal companies also brought educated persons to the company towns, such as doctors and engineers, which led to the beginning of a stratified social system.¹² This reality made and continues to make central Appalachia vulnerable to changes in industrial demand from the core.¹³

After World War II, the majority of the country enjoyed "national economic expansion," but developments in Appalachian coal fields during this time period led to a significant rise in unemployment and poverty among miners and their families. Jobs that had required human labor were replaced by machines. The eastern Kentucky coal fields experienced a 60% decrease in employment from 1950 to 1960,¹⁴ and unemployment

⁹ Ibid., 322-323

¹⁰ Lewis, *Colonialism*, 10.

¹¹ John Gaventa. *Power and Powerlessness Quiescence and Rebellion in an Appalachian Valley*. (Chicago: University of Illinois Press, 1980), 12.

¹² Lewis, *Colonialism*, 11.

¹³ Tyrel Moore. "Core-Periphery Models, Regional Planning Theory, and Appalachian Development." *Professional Geographer* 46, no. 3 (1994): 322.

¹⁴ Lewis, *Colonialism*, 11.

rates in Appalachia grew to exceed the national average by 40%.¹⁵ President Kennedy's Appalachian Regional Commission (PARC) found that the per capita incomes of Appalachian families were only equal to "65% of the national norm" at this time; per capita income of three-thousand dollars represented the poverty line, and over one-third of Appalachian families had per-capita incomes of three-thousand or less.¹⁶ The coal companies had invested in Appalachia's resources, not in its people, and as technology replaced jobs, the miners were not compensated.¹⁷ Because the coal company was primarily concerned with resource extraction, the land was not protected but torn open, eroded and contaminated.¹⁸ Few miners rebelled against the unfairness of the system.

How the Core Exploits the Periphery and Why the Periphery does not Resist the Core

The lack of response by miners and their families to the increasing unemployment and poverty rates in Appalachia can be explained through a social lens of political power.¹⁹ As John Gaventa states in his ground-breaking book *Power and Powerlessness*, "the miner understood something of powerlessness, of power, and of how the two could serve to maintain inaction upon injustice, even in a 'democracy.'"²⁰ Gaventa describes three dimensions of power.

In the first-dimensional approach, the non-elite push back against inequalities imposed by the elite through the use of an open democratic system. The non-elite publically express grievances, run for public office, and file lawsuits. By participating in the open system, members of the non-elite reestablish equality, and prevent political, economic, and social domination by the elite. Nonparticipation in the system is attributed to ingrained cultural attitudes and conditions of the non-elite such as

¹⁵ Moore, *Core-Periphery*, 316.

¹⁶ Ibid.

¹⁷ Lewis, *Colonialism*, 10.

¹⁸ Gaventa, *Power*, vi.

¹⁹ Ibid., 4.

²⁰ Ibid., 5.

“apathy, political inefficacy, cynicism or alienation of the impoverished.”²¹ In other words, members of the non-elite are blamed for nonparticipation.²²

The term ‘culture of poverty,’ which has been utilized to represent these attitudes, was first coined in the late 1950s by Oscar Lewis, a renowned anthropologist who studied the urban poor in Mexico and Puerto Rico.²³ In 1965, Daniel Patrick Moynihan used the term culture of poverty in a controversial report, “The Negro Family: The Case for National Action.” Moynihan stated that a culture of poverty in Black communities was linked to perpetual cycles of mothers who were not married and unemployed people who received welfare.²⁴ The article raised public outrage among Black communities and civil rights leaders who saw the article as stereotyping Blacks, while serving a culturally biased mindset of the white elite. For many years after the report’s publication, people avoided the term culture of poverty for fear of being termed politically incorrect. However, modern social scientists have readopted the term within a new context. The ‘culture of poverty’ is no longer attributed to faulty morals in a cultural group, but to factors like geographic isolation and racism that perpetuate its cycle. The socialization of children and adults in a poor community with common attitudes and beliefs can also sustain the culture of poverty. William Julius Wilson, writing about ghetto life, defined culture “as the way individuals in a community develop an understanding of how the world works and make decisions based on that understanding.”²⁵

The second-dimensional power approach takes into account that the non-elite, who have the greatest need for political change, do not have equal access to decision-making processes. The democratic system is not entirely open to them. Instead, politics are dominated by members of the elite who write the rules of the game so that the non-

²¹ Ibid., 7.

²² Ibid., 8.

²³ Oscar Lewis. *Five Families: Mexican Case Studies in the Culture of Poverty* (New York: Basic Books Inc, 1959).

²⁴ Patricia Cohen. “‘Culture of Poverty,’ Once an Academic Slur, Makes a Comeback.” *New York Times*, October 18 2010, sec. A.

²⁵ Ibid.

elite are unable to alter the power relationship even if they try.²⁶ The elite create a political system that silences the voices of the non-elite while furthering its own agenda.²⁷

The third-dimensional approach explains the attitude of compliance and nonparticipation by realizing that the elite can shape the desires of the non-elite by “changing their demands and expectations.”²⁸ For example, when the American Associated Ltd. moved into Appalachia, it brought with it ideas of a new “industrial order.” The values of the new order were propagandized as superior to the values of the local peoples. The Company coaxed the people into believing that their subsistence agriculture and kinship were both deficient and morally starved; they could be exchanged for a new culture that contained ostensible benefits of a more “progressive” civilization. Ministers were encouraged to “convert and civilize the mountaineers, gamblers and moonshiners,” and a new education system socialized children to believe that city people were of a “higher class” than their parents.²⁹ In effect, religious and educational institutions, which were often brought in from the outside, shaped the beliefs and attitudes of the non-elite.

The third dimension of power also forces the non-elite into a dependency on the good-will and graces of the elite.³⁰ Thus, members of the local elite are more often than not re-elected on Election Day in central Appalachia’s Clear Fork Valley. There is fear and vulnerability associated with not voting for the local elite, because members of the local elite control the distribution of welfare stamps, collect the rent from company houses, and employ community members in public work programs. The saying “if you don’t vote for me, I won’t ‘commodate you’ creates political inaction towards inequality.”³¹ Separation from politics inhibits the non-elite from breaking into the realm of the local elite, and leads to a “culture of silence.”³²

²⁶ Gaventa, *Power*, 9.

²⁷ *Ibid.*, 14.

²⁸ *Ibid.*, 12.

²⁹ *Ibid.*, 68.

³⁰ *Ibid.*, 18.

³¹ *Ibid.*, 143.

³² *Ibid.*, 18.

The third-dimension of power also explains the vast discrepancies in wealth between the core and periphery areas of Appalachia. According to the core periphery model, the domination of peripheral areas by extractive industries can be described as colonialism. With colonialism comes not only domination of the land but of the people as well. Just as with the American Associated Ltd., the corporate objectives were most greatly achieved when the people were submissive to the company's values and ideas, and this could only be done if the people's very value systems were amended, their culture degraded, and a mobilization of bias built into the political process to favor the elite.

The three dimensions of power are well illustrated by events in Appalachia during the 1930s. In 1931, the market demand for coal decreased significantly. Wage cuts and layoffs took place. The "Middlesboro [Kentucky] Daily News...reported about 5,000 people in the coal hollows to be 'facing starvation.'"³³ Clearly coal miners at this point were helpless to improve themselves; starving, they lived in the first dimension of powerlessness. Colonialism had instilled in the miners "the anticipation of defeat."³⁴ However, roots of rebellion grew as the miners realized their basic needs were not being met. They began to see the paternalistic facade of the coal companies. In order to reestablish dominance, the coal companies evicted "hundreds of miners ...[and]...families" who had attended organized meetings of the United Mine Worker's Association (UMWA).³⁵ Eviction of the miners reflects the way in which a more powerful group simply outmuscles the weaker.

Nevertheless, the miners initiated a strike. By May of that year 100 armed miners had fought a large number of deputies in the Battle of Evarts, leading to the deaths of three deputies and one miner. This uprising prompted the arrival of Kentucky State troopers. Throughout Appalachia, the protest strike continued to spread.³⁶ In June 1931, the strike was revitalized under the leadership of a new organization, the National Miner's Union. It continued despite constant assault of "hired thugs, machine guns,

³³ Gaventa, *Power*, 96.

³⁴ *Ibid.*, 254.

³⁵ *Ibid.*, 96.

³⁶ *Ibid.*, 98.

dynamiting, beatings and killings of organizers and sympathizers, raids, evictions, burnings, harassments, and arrests.”³⁷ The violence towards protestors clearly illustrated the first dimension of power. As mining companies started creating ways to prevent striking miners from ever returning to work, the case began to illustrate the second dimension of powerlessness.

The local elites were able to control the media’s perception of the strike through the power of influence. Not only were the local elite the most visible spokespersons to the outside world, but they had a greater access to economic resources and were able to inhibit the “development of the resources...necessary for building a counter-organization.”³⁸ The local elite were also able to employ violence to their advantage. For example, “at least two outside reporters who were sympathetic to the miners were shot.” By controlling the dissemination of information in and outside Appalachia, the local elite were able to “isolate, contain, and redirect the conflict.”³⁹ The control and manipulation of information created distinct perception and attitudes. By doing this, managers of the coal companies engaged the third dimension of power.

When the Core Misguidedly Helps the Periphery

President Kennedy and his advisors adopted the core periphery model to explain the inequalities in wealth between core and peripheral areas in Appalachia, and between Appalachia and the nation. However, President Kennedy did not fully recognize the role of all three dimensions in the colonization of the region. Kennedy created government programs that linked the core with the periphery, in order to decrease isolation and “bridge the developmental gap.”⁴⁰ However, when links were made between the core and periphery, either by railway or road, core wealth rarely trickled back to the periphery.⁴¹ In areas with highly modernized “railroads, highly sophisticated

³⁷ Ibid.,102.

³⁸ Ibid.,108.

³⁹ Ibid.,106.

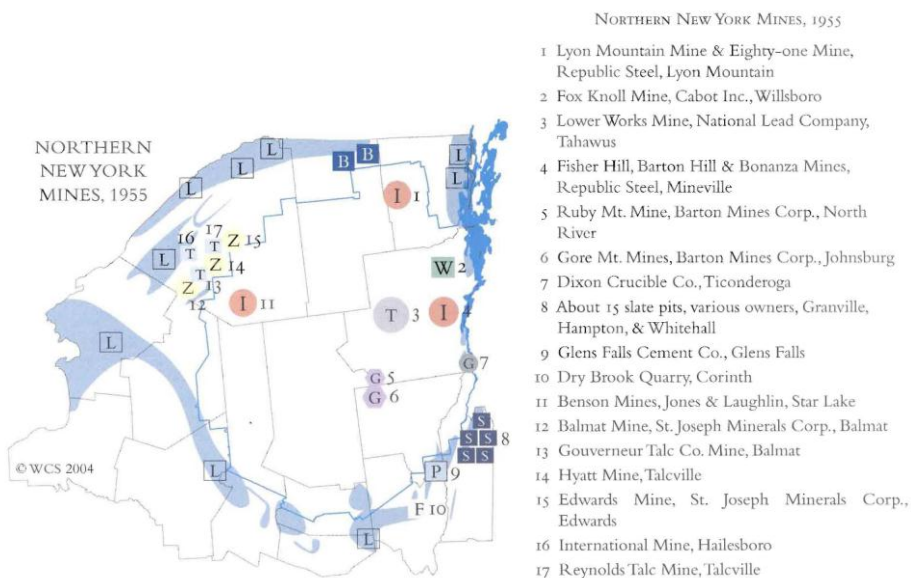
⁴⁰ Moore, *Core Periphery*, 318.

⁴¹ Ibid., 318-319.

machinery, industries linked to the largest most powerful corporations in the world, and a non-farm industrialized population,” people were found to have only a minimal level of education and only basic skills.⁴²

The aims of the Appalachian Regional Commission in the late 1960s and 1970s were to establish ‘vocational and technical education, health care, flood control, reclamation of strip mined areas, community development, infrastructure such as water-sewage projects and the massive highway construction program” to link Appalachia to core areas. The Appalachian Development Highway System was devised for the construction of 3,000 miles of highways and 1,000 miles of access roads.⁴³ Highways that connected core and peripheral areas did increase employment opportunities while strengthening the coal industry. Roads were used to transport raw materials to the core for processing.⁴⁴

Like in Appalachia, wealth disparities exist in the North Country between core and peripheral areas. This divide has grown alongside the capitalization of mineral resources by mining companies and the resulting colonization of the region’s peoples. We see this trend expressed historically and at present in the talc mines. The following map may be useful for locating the mining activities discussed below.



⁴² Lewis, *Colonialism*, 9.

⁴³ Moore, *Core Periphery*, 321.

⁴⁴ *Ibid.*, 324.

Talc Mining in the North Country

Mining is a 1.5 billion dollar industry in New York State, and ranks in the top third of all states for value of mineral production.⁴⁵ Talc mining historically took place in the Lewis and St. Lawrence counties. In Lewis county, the Carbola Chemical Company operated a mine near Natural Bridge. In St. Lawrence county, the Uniform Fibrous Talc Company, Gouverneur Talc Company, and International Talc Company operated mines in the vicinity of Talcville, and Gouverneur Talc Company and Dominion Company operated mines near Sylvia Lake. Gouverneur Talc Company is the only talc mine still in operation.⁴⁶

Legend holds that Samuel Merritt, a veterinarian, first discovered talc in Fowler in 1873 while exploring the farm of Abner Wight. This discovery was confirmed by a Watertown geologist, Daniel J. Minthorn. In 1876, the Agalite Fiber Company was formed to extract talc from Wight's property. The company initially practiced open pit mining, but converted to an underground shaft when the pit became too deep. Ore was raised from the underground shaft in a horse-drawn bucket and taken to a nearby steam mill where it was crushed into powder. The mill produced an unrefined talc product and ceased production soon after mining operations began.⁴⁷

In 1876, Henry Palmer, who participated in the 1849 California gold rush, found talc in a road cut from Emeryville to Talcville. Two years later, Palmer began the first commercial talc mine in New York State on the Nelson Freeman farm near Talcville,⁴⁸ selling his operation to the International Pulp Company, which owned timber lands in the area in 1893. As a result of Palmer's efforts, "talc mining introduced an economic

⁴⁵ New York State Department of Environmental Conservation, "Mining in New York State," Accessed on 14 Sept 2010.

⁴⁶ Elaine Luedke Chester Wrucke, John Graham. *Mineral Occurrences of New York State with Selected References to Each Locality* Geological Survey Bulletin 1072-F (Washington, D.C: U.S Government Printing Office), 1959.

⁴⁷ Martha Ellen. "Man's Vision Leads to Talc Industry" *Watertown Daily Times* 31 Oct 1999.

⁴⁸ "The Bright Story of Talc in Our Area" *The Tribune Press* 23 Aug 1978.

boom to the rural and cultural counties of St. Lawrence and Jefferson in Northern New York State.”⁴⁹ The American Talc Company opened a talc mine on the farm of John D. Balmat in 1892,⁵⁰ and in 1907, American Talc fused with International Pulp Company which renamed itself as International Talc Company in 1944.⁵¹ During World War II, six mines actively extracted talc and five mills processed it.

Created in 1948 by the R.T Vanderbilt Company of Norwalk, Connecticut, the Gouverneur Talc Company⁵² produced over 100,000 annual tons of ore from a deposit near Sylvia Lake in the Fowler-Talcville area by the middle of the twentieth century.⁵³ In 1974, the Gouverneur Talc Company bought out the International Talc Company.⁵⁴ By 1998 all talc mining and milling was taking place between Fowler and Balmat.⁵⁵

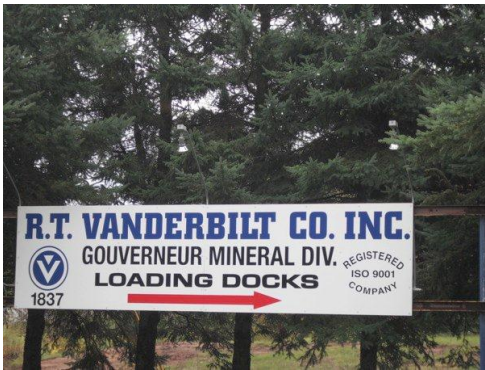


Fig 1: R.T Vanderbilt sign, 2010

Case Study: Gouverneur Talc Company, Balmat, NY

When the Gouverneur Talc Company bought out the International Company in 1974, the treatment of the miners brought light to a social justice issue, illustrating the conflict in interest between the core and periphery. The Gouverneur area had been⁵⁶ notorious for a high rate of unemployment. Mining offered one of the few viable career opportunities for men that wanted to stay in the area with their families. According to

⁴⁹ Mindy Hull. “Mesothelioma among Workers in Asbestiform Fiber-bearing Talc Mines in New York State” *Ann. Occup Hygiene*. 46 no. 1 (2002).

⁵⁰ Ellen, “Man’s Vision.”

⁵¹ “The Bright Story.”

⁵² Ellen, “Man’s Vision.”

⁵³ Webber, “Evidence,” 969.

⁵⁴ “The Bright Story.”

⁵⁵ Webber, “Evidence,” 969.

⁵⁶ Ibid.

the New York State Department of Labor's 1976 report, 98% of working residents in St. Lawrence county worked in their home county.⁵⁷

Rumors had been circulating as early as 1968 that International Talc Company would be selling to another company, but miners had remained largely uninformed of the dealings or possible consequences. Then, in May of 1974, miners were terminated



Fig 2: Gouverneur Talc mine buildings

by International Talc Company without warning when Gouverneur Talc Company acquired the company in an afternoon stockholder's meeting.⁵⁸ Although the men were encouraged to apply for employment with Gouverneur Talc Company, 39 of the miners were turned away after medical examinations revealed lung damage. To receive any

form of Workmen's Compensation, Social Security, or Unemployment Insurance, the miners had to prove they were dying from lung cancer. In a nearly non-existent job market, the miners were forced to either find alternative work, or to navigate a flawed system littered with barriers for compensation benefits.⁵⁹

⁵⁷ John Fitzsimons. *Through the Mill; 39 Talc Workers Out of Work and Out of Luck* (Canton: St. Lawrence University North Country Research Center, 1977), 2.

⁵⁸ Ibid., 1.

⁵⁹ Ibid., 3.



Fig 3: Sign reads “Gouverneur Talc Subsidiary of R.T Vanderbilt Co.”

Although the International Talc Company’s motivations for selling their assets to Gouverneur Talc Company have remained elusive, there is reason to believe that they were troubled by “increasing environmental concern over asbestos and its connection to the talc industry” and the financial commitment the company would have to

make to meet new industry safety standards. The sale to Gouverneur Talc Company may also have anticipated the revised New York compensation law, which in July 1974 required that workers had to prove only “partial disability” to receive compensation from the company and government.⁶⁰

Doctors for International Talc Company, and later for Gouverneur Talc Company, gave misleading information to miners, telling them that their lungs were fine although X-rays showed differently. Mine inspectors gave the Company two or three days of notice before inspection, enough time for the Company to clean away talc-containing dust.⁶¹ Local doctors, unaffiliated with the company, also felt pressure to misdiagnose occupational disease. For example, when radiologist Dr. George Wineburgh diagnosed miners with mesothelioma, which can only be caused by asbestos, instead of emphysema, which can be caused by a variety of other factors, he was fired from the community hospital.

In January of 2008, the company announced the end of talc production in Fowler.⁶² Miners laid off from Gouverneur Talc Company sought jobs at St. Lawrence Zinc Company and Stillwater Mining Company in Montana, other locations where jobs also quickly disappeared.⁶³ Gouverneur Talc Company continued to mine wollastonite in

⁶⁰ Ibid., 11.

⁶¹ Andrew Schneider. “It didn’t matter what they called it...it’s killing us” *Seattle Post Intelligencer* 22 Jun 2000.

⁶² Martha Ellen. “Firm Still Fills Order for Talc-Winding Down: Gouverneur Facility to Cease Production of Talc by April 1” *Watertown Daily Times* 08 Jan 2009.

⁶³ Martha Ellen. “Miners Having Ups and Downs-Work Hard to Find: Some From NNY Move Out West, Only to See New Jobs Disappear” *Watertown Daily Times* 22 Nov 2008.

Harrisville, a mineral used in plastics, ceramics, and foundries, which was then processed in Balmat. Later that year, Gouverneur Talc Company also fired its top five management personnel in order to cut costs, leaving seven employees with paid salaries and twenty-two hourly workers.⁶⁴ The company has since formulated a reclamation plan, which includes plans to level out the mine tailings, cover them with soil, and then reseed the area. The original surface pit mine will be filled with water to form an artificial lake.⁶⁵

David Dean, one of the few remaining employees at Gouverneur Talc Company, explained that “the easy economic times are done...all the easy stuff is gone.” He was pessimistic about the future of the Gouverneur area. Mining jobs were simply “survival unless you [could] get into academia and government offices.” Because of the job cuts, miners he knew were “scattered all over” the west. Controversy over asbestos content in the company’s talc remains rampant, and when asked to discuss the health effects of “dust exposure” Dean said, “I have to be evasive... [it is] propriety information.”⁶⁶

Talc as a cause of Asbestosis diseases

The National Institute for Occupational Health (NIOSH) defines a mineral as a “naturally occurring inorganic compound with a specific structure and elemental composition.”⁶⁷ Asbestos refers to fibrous minerals, usually long, thin, and flexible, that fit into two categories: serpentine and amphibole. Serpentine minerals contain chrysotile asbestos. Amphibole minerals contain amosite, crocidolite, tremolite, anthophyllite, or actinolite asbestos.⁶⁸ Both categories are valued for their high tensile

⁶⁴ Martha Ellen. “Changes made at Vanderbilt mining paying off in increased production.” *Watertown Daily Times* 18 Dec 2009.

⁶⁵ Martha Ellen. “Closed surface mine to be reborn as lake-filling in naturally: end of talc production at town of Fowler facility leads to reclamation project” *Watertown Daily Times*, 19 Apr 2009.

⁶⁶ Personal Interview, David Dean, 23 Oct 2010.

⁶⁷ Department of Health and Human Services, *Asbestos Fibers and Other Elongated Mineral Particles: State of the Science and Roadmap for Research*, National Institute for Occupational Safety and Health *Current Intelligence Bulletin* (Atlanta: Center for Disease Control and Prevention, 2008).

⁶⁸ Ibid.

strength and resistance to heat and chemicals.⁶⁹ Although industry does not define talc fibers as asbestos, independent scientists have shown that they cause asbestos diseases.⁷⁰

According to a 2006 World Health Organization (WHO) report, around 125 million people worldwide are exposed to asbestos in their workplace. The two most common diseases associated with asbestos are asbestosis and mesothelioma.⁷¹ Asbestosis results from the scarring of lung tissue. When the asbestos fibers are inhaled, they attach to and irritate lung tissue. As a defense mechanism, the body builds cysts around the irritation, and these cysts take up valuable space in the lungs, preventing adequate diffusion of oxygen into the bloodstream.⁷² The disease kills by slow suffocation as “lungs [are] made uselessly rigid by scarring from deeply embedded mineral fibers...cancerous tumors... [and] muddy-yellow fluid the consistency of honey.” People with advanced stages of asbestosis show clubbing in the fingertips and nails, which is caused by a lack of oxygenated profusion to the area.⁷³ Mesothelioma is a “cancer that exists as a primary tumor principally in the lining of the lung (pleura) or the lining of the abdomen.”⁷⁴ Pleural Mesothelioma accounts for 95% of cases among males and 77% of cases among females.⁷⁵ The cancer has a latency period of over thirty years.⁷⁶ Its only recognized cause is asbestos exposure.

In the late 1970s, asbestos was defined as a human carcinogen by the U.S EPA, the International Agency for Research on Cancer, the WHO, and the U.S National Toxicology Program. It has been determined by these agencies that there is no safe level of asbestos exposure.⁷⁷ However, talc industries have relied on scientific debates about

⁶⁹ Ibid.

⁷⁰ Joseph LaDou. “The Case for a Global Ban on Asbestos.” *Environmental Health Perspectives* 118, no.7 (2010): 898.

⁷¹ Ibid., 897.

⁷² John Fitzsimmons, *Through the Mill*, 2.

⁷³ Schneider, “It didn’t matter.”

⁷⁴ Bertram Price. “Industrial-grade Talc Exposure and the Risk of Mesothelioma,” *Critical Reviews in Toxicology* 40 (2010): 516.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ LaDou, “The Case,” 897.

what constitutes asbestos to “obfuscate the problem of asbestos-related diseases.”⁷⁸ Scientific consultants are often approached by companies and offered millions of dollars to write, publish, and promote “product defense papers,” which are supposed to halt or defer product regulations in an attempt to defeat litigation attempts by plaintiffs who are bringing cases against the company.⁷⁹

The debate over whether or not R.T Vanderbilt Company’s talc contains asbestos has generated conflicting opinions between R.T Vanderbilt Company and public health experts on the exact definition of asbestos.⁸⁰ In 1972, the Occupational Safety and Health Administration (OSHA) set the first U.S standards for asbestos by accepting a recommendation by the NIOSH that asbestos be defined as chrysotile, amosite, crocidolite, tremolite, anthophyllite, or actinolite.⁸¹ In 1983, lawyers employed by R.T Vanderbilt Company wrote to the Department of Labor to question “OSHA’s acceptance of NIOSH’s determination that “... [talc in the] mine was tremolite and was harming the health of the miners.” The lawyers also explained that OSHA’s current stance foretold “disastrous economic consequences” for R.T Vanderbilt Company.⁸² Two years later, the New York Department State of Health conducted a study to assess abnormalities in chest X-rays among patients in the St. Lawrence and Jefferson counties that had been recorded by a local radiologist.⁸³ The abnormalities showed clusters of fibroses (scar tissue) and changes in the pleura, indicating possible exposure to asbestiform minerals. About 60% of all patients with abnormalities had worked for a year or more in talc mining or milling.⁸⁴

In 1986, OSHA amended its definitions by distinguishing minerals that behaved like asbestos and those that did not.⁸⁵ Fibrous minerals were reevaluated along the lines

⁷⁸ Ibid., 898.

⁷⁹ Ibid.

⁸⁰ Andrew Schneider. “Old Dispute Rekindled over Content of Mine’s Talc” *Seattle Post-Intelligencer* 30 May 2000.

⁸¹ Price, “Industrial Grade,” 517.

⁸² Schneider, “It didn’t matter.”

⁸³ Edward, Fitzgerald. “Exposure to Asbestiform Minerals and Radiographic Chest Abnormalities in a Talc Mining Region of Upstate New York.” *Bureau of Environmental and Occupational Epidemiology* 46, no. 3 (1991): 151.

⁸⁴ Ibid., 153.

⁸⁵ Price, “Industrial Grade,” 517.

of “biologic properties” to discern between asbestos and non-asbestos forms. OSHA still agreed with NIOSH that talc was tremolite,⁸⁶ but by 1992 had reversed its determination that R.T Vanderbilt Company’s talc was an asbestos form of tremolite.⁸⁷ It was ascertained that the R.T Vanderbilt Company’s talc was a non-asbestos form of tremolite, and that there was “insufficient evidence” to conclude that the non-asbestos form presented “a risk similar in kind and extent to asbestos.”⁸⁸

Piles of pathology reports, autopsy reports, medical studies, and death certificates confirm the existence of asbestos disease in area miners, implicating strongly the fibers in talc. However, the New York Supreme Court ruling in 1999 that mining companies could not be sued for health damages, because state law mandated that all claims be forwarded through worker’s compensation, posed a large hurdle.⁸⁹ The nation’s first successful verdict on behalf of a worker employed in the talc industry did not take place until November of 2006. The plaintiff, Peter Hirsch, who was a New Jersey potter, had developed mesothelioma determined to have come from contact with talc from R.T Vanderbilt Company. During the trial, R.T Vanderbilt Company maintained its decade’s long claim that its talc was not asbestiform, and thus did not contain carcinogenic fibers. Both R.T Vanderbilt Company, and the marketer of the talc, were found liable for the worker’s death.⁹⁰

Recently, awareness of talc as a primary cause of asbestosis and mesothelioma diseases has infiltrated the court system and public consciousness, although the change comes too late for most people formerly employed by the North County talc mines. The year after the Hirsch case was decided, Durham’s Rock Hard Water Putty, which was used to “patch walls, repair wood, and for sculpting and modeling building” was called into question by the Center for Environmental Health in Oakland California. Talc in the putty had been purchased from R.T Vanderbilt Company and was found to have “asbestos and talc containing asbestiform fibers” according to Jerrold Abraham, doctor

⁸⁶ Schneider, “It didn’t matter.”

⁸⁷ Ellen, “Man’s Vision.”

⁸⁸ Price, “Industrial Grade,” 518.

⁸⁹ Schneider, “It didn’t matter.”

⁹⁰ Levy Phillips & Konigsberg, LLP. “Breaking Legal News Nation’s First Talc/Asbestos Verdict,” 2006.

of pathology at SUNY Upstate Medical University, Barry Castleman, an environmental consultant, and James Millette, a microscopist formerly employed by the Environmental Protection Agency.⁹¹

The downsizing and impending closure of the talc mine has hurt the employment of the region. However, with its relatively large population of 7,418, according to the 2000 U.S Census Bureau, the village of Gouverneur has insulated the impact of the mine's closure with a more diversified economy. In comparison, the following case studies of iron ore mines in Lyon Mountain and Star Lake highlight the crippling effect of industry closure in small towns. With respective populations of 458 and 860, Lyon Mountain and Star Lake have vulnerable economies that offer no buffer to the consequences of mine closure.⁹²

Iron Ore Mining in the North Country

The Adirondacks of Northern New York are home to what were once the largest open iron-ore mines in the world. Iron-ore extracted from the mines was crucial to the industrial expansion of the nation. The Sixth Federal Census in 1841 found that nine counties in the Adirondacks were producing “7,354 tons of cast iron and 9,107 tons of bar iron” per annum.⁹³ Men found employment in the mines and in the forest, cutting down timber and making charcoal to use in the ore smelters. By the 1880s, over one-fourth of the nation's iron ore was being produced in the Adirondacks. The amount of ore still in the ground at that time was described as bottomless.

⁹¹ John Gannon. “Health Advocates, State Agency Fault Products Containing Controversial Talc” *Chemical Regulation Daily* 2007 no. 9 (2007): 1.

⁹² U.S Census Bureau, *Population Finder*, <http://www.census.gov/>

⁹³ Floy Hyde, *Adirondack Forests Fields and Mines* (New York: Vail-Ballou Press, 1974), 146.

Case Study: Lyon Mountain

According to local myth, the Lyon Mountain Ore Bed was discovered by a local trapper, Collins, in 1803. However, it was not until Lloyd N. Rogers purchased the Chateaugay Ore Bed in 1822 that its discovery was officially recorded.⁹⁴ Rogers did not develop the ore bed because of its geographic isolation from routes of transportation and urban centers. Around 1872, Andrew Williams and Smith M. Weed founded the Chateaugay Ore Company, which was based out of Plattsburgh, and purchased the Chateaugay Ore Bed from investors who had bought the property from Roger's son.⁹⁵ Mining operations began in 1873. A forge or blast furnace turned ore into iron blooms, or porous bars of iron and slag (a byproduct).

Iron blooms are formed when air is blasted into a charcoal furnace, and small amounts of iron ore and charcoal are added interchangeably to the flames. The incomplete combustion of charcoal releases carbon monoxide, which reduces the iron oxides in the ore to metallic iron. Small pieces of iron fall to the bottom of the furnace and mix with slag to form a porous mass called a bloom. Wrought iron, often created from blooms, is formed by reheating the bloom, and pounding the slag out of it with a hammer.⁹⁶

In 1874-75, an iron forge was constructed near Belmont. Ore from the Lyon Mountain mines was transferred by plank road to Upper Chateaugay Lake, where it was loaded onto a barge, and then brought to the forge at Belmont. The forge produced high quality blooms that were 99.7% iron, .017% sulfur, .017% phosphorus, .13% carbon, and .08% silicon.⁹⁷ The steel districts of Pennsylvania and Ohio accepted over fifteen gross tons of the iron blooms daily. Ore traveled from Chateaugay to Pennsylvania and Ohio along the Lake Champlain Railroad, which was extended in the 1870s to reach directly to the ore bed. Aware of the ore's high iron content, builders of the Brooklyn Bridge and George Washington Bridge in New York City used Lyon

⁹⁴ Ibid.,155.

⁹⁵ Ibid.

⁹⁶ Margo Kourofsky, Personal Interview, 22 Nov 2010.

⁹⁷ Floy, "Adirondack," 160.

Mountain's ore.⁹⁸ Low phosphorus levels made it extremely malleable and ideal for bridge cables.⁹⁹

By 1883, the hamlet of Lyon Mountain had grown to a prosperous town of three thousand people. In 1885, the Chateaugay Ore Company opened a blast furnace in Standish for the production of pig iron, and laid rails to Standish from Lyon Mountain.¹⁰⁰ Pig iron is made with the starter products iron-ore, coke or charcoal, and limestone. Air is blasted into the bottom of the furnace, which causes the calcium in the limestone to combine with the silicates in the ore and fall to the bottom of the furnace as slag. Iron is turned to liquid by the combustion of coke or charcoal, made intensely hot by air blasted into the furnace. Liquid or molten iron drains to the bottom of the furnace after passing through the slag. It then cools in a pile of sand. Once the molten iron has cooled it is referred to as pig iron. The pig iron is very hard and brittle because of its high carbon content.¹⁰¹ Just as in Lyon Mountain, the furnace in Standish led to economic prosperity, and the population of Standish grew. The townspeople built a school, church, and general store.¹⁰²

In 1893, the Company moved its operations at Belmont to Standish in order to consolidate facilities and save money. The Company was able to export both iron blooms and pig iron by railroad from the same location. The forge at Belmont closed, and with it the lives of the surrounding townspeople were uprooted. The closure of the Belmont forge served as an example of how quickly a town, with an undiversified economy, could become subject to decision-making by business.

In 1902, the Chateaugay Iron and Ore Company discovered that the veins of ore at Lyon Mountain were 70 feet thick, instead of the expected 30 feet, and that the veins extended "six miles in a northeasterly and southwesterly direction," marking the ore deposit as one of the largest deposits of iron ore in the world.¹⁰³ A 1907 New York Times article claimed that the land owned by the Chateaugay Iron and Ore Company contained

⁹⁸ Ibid., 161.

⁹⁹ Kourofsky

¹⁰⁰ Floy, "Adirondack," 162.

¹⁰¹ Kourofsky

¹⁰² Hyde, *Adirondack*, 162.

¹⁰³ "Rich Strike of Iron Ore," *New York Times*, 1902.

over 500 million tons of ore that was registered at 40% iron.¹⁰⁴ With this discovery, the Company mobilized some three hundred workers to fell timber for charcoal production, and to rebuild the Standish blast furnace so that it could produce 25,000 tons of pig iron each year.¹⁰⁵ The major stockholder in the Chateaugay Iron and Ore Company at this time was the Delaware & Hudson Railroad Company,¹⁰⁶ which took over business of the former Lake Champlain Railroad in 1903.¹⁰⁷ In 1914, the main shaft at Lyon Mountain was drilled deep underground in order to replace the original open-pit mines.¹⁰⁸ As iron-ore production increased, the charcoal supply for the Standish furnace dwindled because of local deforestation. Charcoal is made from wood heated in the absence of oxygen. To switch to an alternative fuel source, the Standish forge was remade into a coke furnace. Coke, a distilled product of coal, represented a more long term fuel solution. With the advent of the World Wars in 1914 and 1939, the Lyon Mountain mines were pushed towards their maximum production.¹⁰⁹ During World War II, three shifts ran round the clock to ensure continuous production of ore. Over 700 men worked each shift.¹¹⁰



Fig 4: Loading facilities for hopper cars on railroad spur lines

¹⁰⁴ “Steel Trust After D. &H. Orelands,” *New York Times*, 1907.

¹⁰⁵ “Rich Strike”

¹⁰⁶ “Steel”

¹⁰⁷ Hyde, *Adirondack*, 165.

¹⁰⁸ Bruce Rowland. “Last of mining landmarks fading fast.” *Press Republican* 13 Jun 2010.

¹⁰⁹ Hyde, *Adirondack*, 167.

¹¹⁰ Kourofsky

Deaths in the mine were frequent, and more than 160 miners lost their lives during the mine's operation. The most dangerous jobs fell to laborers, drillers, muckers, foremen, chute pullers, and bell ringers.¹¹¹ One of the most common reasons for deaths was "rock bursts." As the weight of ore increased with mine depth, pressure built up overhead. Because the iron ore was brittle, it did not absorb all of the pressure, and would spontaneously implode; killing miners with blasts or cave-ins.¹¹² The blasts were registered as high as 4.0 on the Richter scale.¹¹³ According to accounts by local historians, corruption in management prevented attention from media and "serious or fatal accidents [were not reported] unless absolutely necessary."¹¹⁴ The company never once claimed responsibility for deaths of the miners.¹¹⁵ As local historian and author Lawrence Gooley states, because of the "oppressive control of the company who owned your house, your stores, and your livelihood... it would seem wrong at best and foolhardy at worst to challenge such a power."¹¹⁶

The Republic Steel Corporation, which bought out the Chateaugay Iron Ore Company in 1930, continued to control the Lyon Mountain hamlet as a company town



Fig 5: Company houses

until the 1950s. According to Gooley, "the people were appreciative of mining jobs and wages, but it's hard to overstate the control the company maintained over their lives...the company owned the mines, the land, and virtually the entire

¹¹¹ Lawrence Gooley, *Out of Darkness*, (New York: Bloated Toes Enterprises, 2005), 25.

¹¹² *Ibid.*, 4.

¹¹³ *Ibid.*, 13.

¹¹⁴ *Ibid.*, 3.

¹¹⁵ *Ibid.*, 18.

¹¹⁶ *Ibid.*, 19.

village.”¹¹⁷ Miners who moved to Lyon Mountain were put up in company housing and forced to pay rent prices established by the company. Although the rent was not outrageous, this arrangement prevented the miners from being able to buy their own residential property. If a miner was injured in the mines, and was unable to return to work, he was given only a short time to move out of the company house before a healthy miner assumed occupancy. Also, the only place to buy goods in Lyon Mountain was at the company store. At one time, coupons called “scrips” were handed out by the mining company in place of wages, and the only place to use scrips was at the company store. The Company also kept control over people’s lives by preventing the formation of a town government. Instead of elected officials, “the manager of the company was also the mayor, and the company security officers served as police under the control of the company manager.” The company “wielded absolute power over everyone’s lives.”¹¹⁸

Margo Kourofsky, the director of the ‘Friends of Lyon Mountain Mining and Railroad Museum,’ and third generation resident of Lyon Mountain, explained how there were “hard times and good times, and we stocked away for the bad times.”



Fig 6: Friends of Lyon Mountain Museum

Layoffs and strikes were a “way of life.” She recounted a struggle that ensued between the company and miners in 1904. The miners wanted the company to pay for coffins if they were killed in the mines, but the company refused. The miners went on strike, but the company asked

the town priest to tell the miners to go back to work. The priest followed company orders and the men went back to work.¹¹⁹

¹¹⁷ Lawrence Gooley, Personal Interview, 25 Dec 2010.

¹¹⁸ Ibid.

¹¹⁹ Kourofsky

The hamlet of Lyon Mountain was once described as the "town that will never die," but the end of mining in 1966 proved to be the first in a string of economic hardships on the town. Most of the old mine buildings at Lyon Mountain have now been



Fig 7: Mine Tailings

torn down as well as the forge in Standish. The large tailing piles in Lyon Mountain are now being slowly removed by a Canadian business, which is using them for sand blasting and shingle making. Although the mountain's ore has not been entirely depleted, the current cost of extraction is not economically profitable at the present time.¹²⁰

Lyon Mountain has historically been and continues to be economically vulnerable because of an undiversified economy. Today the hamlet faces the impending closure of the Lyon Mountain Correctional Facility and a general aging of the population. Over 60% of Lyon Mountain residents are retired.¹²¹ The town's main source of income since the mine's closure has been the Correctional Facility, but the prison is expected to close in the winter of 2010-11. The prison has provided "dozens of local jobs and support to area businesses." The Plattsburgh-North Country Chamber of Commerce has promised support in finding an alternative source of employment for the town, but prospects remain bleak.¹²² As Margo Kourofsky stated, "civilian workers have no idea what will happen to them, we're in a pretty bad situation." She described how after the mines closed, some miners stayed with the salvage companies, or the prison, while others looked for work at the Plattsburgh and Malone hospitals.¹²³

Although Kourofsky is not hopeful that Lyon Mountain will survive to support a younger generation, she is proud of the town's history and of the "league of men that

¹²⁰ Ibid.

¹²¹ Rowland, "Last of Mining."

¹²² Andrea VanValkenburg. "Officials gearing up for Lyon Mountain closure," *Press-Republican* 11 Aug 2010.

¹²³ Kourofsky.



Fig 8: Inscription reads “Mill No.3, 1917”

worked together” in the mines.¹²⁴ The men, which included her father and grandfather, were united by common work, hardship, religion, and the sport of baseball. As Gooley states, “dealing with the difficulties of life in the mines, the people of Lyon Mountain developed a strong bond and an excellent support

system. The sense of community they developed was truly remarkable, perhaps the strongest and most sincere of any in the county. It is still visible today through the united efforts of many older citizens who are working to preserve the town’s history.”¹²⁵

Case Study: Benson Mine

Star Lake, a village in the southern St. Lawrence County, is geographically isolated at 60 miles from the nearest city.¹²⁶ In the 1950s, the town became home to the largest open pit iron-ore mine in the world.¹²⁷ The ore body at Benson Mine was discovered in 1810 by engineers conducting a survey for a new highway from Albany to Ogdensburg. The engineers noticed the spinning of their compass needles due to the large quantities of magnetic ore under their feet.¹²⁸ In 1889, the Magnetic Iron Company began developing the Star Lake ore body,¹²⁹ which sat under some three-thousand acres of land.¹³⁰ Production of ore halted in 1893 with a depression in the iron ore industry,

¹²⁴ Ibid.

¹²⁵ Gooley

¹²⁶ Russell Hall. *Gem of the Adirondacks: Star Lake, Benson Mines & the Global Economy* (Florida: Lighthall Books, 2005), 10.

¹²⁷ Ryan Adams. “Iron Ore Recovery Potential from Benson Mine Tailings: Using Community Problems to Serve as a Teaching Method,” Presented at 40th Annual Meeting of the United States Geological Survey Northeastern Section (14-16 Mar 2005).

¹²⁸ Hyde, *Adirondack*, 176.

¹³⁰ David Shampine. “Days of Ore & Steel-Recalling the End of Benson Mines Run and its Harrowing Journeys Times Gone By.” *Watertown Daily Times* 17 Nov 1999.

Hart Seely. “Nature Gives Unique Possibilities at Star Lake; Hope Flickers in New Lake That Covers a Mountain Town’s Closed Mine.” *Herald American* 29 Jul 2001.

but resumed in 1900.¹³¹ In 1910, the Benson Mines Company bought the site from the Magnetic Iron Company¹³² and continued operations on and off until 1918.¹³³ At the onset of World War II, Benson Mines reopened when Jones and Laughlin Steel Corporation leased the site. The U.S Department of Defense built ore processing facilities and the iron-ore was shipped to Pittsburgh for use in the war effort.¹³⁴ The mining operation expanded significantly in the 1950s, and was renamed the New York Ore Division, although control remained in the hands of the Jones and Laughlin Steel Corporation.¹³⁵ At its height, the company employed 840 workers in 1960.¹³⁶

With the economic prosperity of the 1950s and 1960s the Company took a leading role in community development. The company published a magazine called *Men and Steel*, which provided “general information about different parts of the plant... [as well as]...personal interest stories, [and] weddings births, deaths, anniversaries, and other family news...”¹³⁷ In 1952, the magazine highlighted the Company’s financial contributions to town projects, which included construction of the Central School building, water system, housing project, and hospital.¹³⁸

The ore body at Benson Mine is composed of magnetite and non-magnetite ore. The average percentage of iron in both magnetite and non-magnetite ore was about 23%, less than the 40% at Chateaugay. Iron-ore deposits that contained 50% or more iron were depleted in the United States by the mid-1940s. The ability to concentrate “non-magnetite ores by gravity processes” at Benson mines ensured its economic expansion because these processes enabled lower grade iron ore to be used in steel - making.¹³⁹ In 1952, a gravity plant was built, which allowed non-magnetic ore to be

¹³¹ Hall, *Gem of the Adirondacks*, 28.

¹³² Shampine, “Days of Ore.”

¹³³ Hall, *Gem of the Adirondacks*, 28.

¹³⁴ Shampine, “Days of Ore.”

¹³⁵ Hyde, *Adirondack*, 176.

¹³⁶ Hall, *Gem of the Adirondacks*, 45.

¹³⁷ *Ibid.*, 116.

¹³⁸ *Ibid.*, 117.

¹³⁹ Hall, *Gem of the Adirondacks*, 95.

processed on site.¹⁴⁰ Ore was extracted using open pit mining methods. Holes were bored in the ground and filled with explosives. “About two gross tons of crude ore... [were produced] per pound of explosive used.” A four ton ball on a crane smashed the ore into smaller pieces, which were then loaded onto a dump truck and transported to the Coarse Crushing Plant, which broke the ore into pieces three-inches in diameter. A conveyer belt then took the ore to the Fine Crushing Plant, which reduced it in size to “one and one-half inch in diameter.” The ore was sometimes crushed into even smaller pieces of “five eighths of an inch” before it was sintered, concentrated, and transported to steel manufacturing centers.¹⁴¹ Sintering merges ore with coke so it is easier to process in steel facilities.

On average, the Jones and Laughlin Steel Corporation shipped about 1 million tons of iron ore sinter each year to steel plants in Pittsburgh and Aliquippa, PA, and Cleveland, OH using the New York Central Railroad.¹⁴² Trains left from the Watertown Junction, traveled to the Benson Mine to pick up ore, returned to Watertown, and then continued on to Syracuse, Buffalo, Pittsburgh, and Ohio.¹⁴³ The iron from Benson Mines was used in the steel production for Chrysler cars.¹⁴⁴

The process of open pit mining, which eliminated the need for costly underground mining, and “the relative softness of the rock, which simplified crushing and extraction...” served to the mine’s advantage; however, the “low iron-content of the ore...[and]...the remoteness of the mine from navigable water, necessitating relatively costly rail transportation” eventually hampered the mine’s financial success.¹⁴⁵ Also, increasing pressure from foreign competitors, which were selling duty free iron-ore products to the United States, caused the entire U.S steel industry to decline and collapse throughout the 1960s.¹⁴⁶

¹⁴⁰ Ibid., 179.

¹⁴¹ Ibid.

¹⁴² Ibid2.

¹⁴³ Shampine, “Days of Ore.”

¹⁴⁴ Hall, *Gem of the Adirondacks*, 9.

¹⁴⁵ Ibid., 97.

¹⁴⁶ Ibid.

The Benson Mine was a staple of the local economy. It employed hundreds of workers and supported over 1,900 people near the end of its operations.¹⁴⁷ The mine also paid over 400,000 dollars each year in taxes, which helped to maintain local infrastructure and services.¹⁴⁸ When the Benson Mine closed in August of 1978 more than 365 people lost their jobs, and Star Lake slipped sharply into economic decline.¹⁴⁹ The number of students enrolled in local schools dropped from 1,400 in 1978 to 625 the following year.¹⁵⁰

In 2000, LTV Steel Corporation, the successor of J&L Steel Corporation filed for bankruptcy after losing the business of General Motors.¹⁵¹ Two years later, the U.S Bankruptcy Court sold LTV Steel Corporation's assets to WL Ross and Company, LLC, for \$127 million. The retired employees of J&L Steel Corporation were informed that their pensions and health benefits would be terminated later that year (Hall, 100). WL Ross and Company, LCC did not assume responsibility of benefits to former employees because it had purchased the assets of the company, instead of the company itself.¹⁵²

Today, Benson Mine is abandoned. Described as an "eyesore," it remains as an "industrial wasteland of partly demolished buildings, toppled furnace stacks, broken windows, heaps of rubble and debris, and rusting machinery and equipment."¹⁵³ The orphaned site symbolizes the prevailing attitude of industry after it pulls out of an area.¹⁵⁴ The town of Star Lake struggles to survive despite decreases in population, tax base, and housing prices. Echoing Karevsky of Lyon Mountain, Alice Williams, a retired agent/operator for the Benson mines states, "we had to accept the fact that the good times had come to an end, with our limited commodity."¹⁵⁵

¹⁴⁷ Hyde, *Adirondack*, 180.

¹⁴⁸ *Ibid.*

¹⁴⁹ Shampine, "Days of Ore."

¹⁵⁰ Hall, *Gem of the Adirondacks*, 9.

¹⁵¹ *Ibid.*, 98.

¹⁵² *Ibid.*, 101.

¹⁵³ John Golden. "Fallen Down Steel Plant Triggers Worries Over Cleanup Expenses." *Watertown Daily Times* 18 Jun 1989.

¹⁵⁴ Matthew Guardino. "Business Hopes Rekindled at Star Lake Steel Site- State Law Eases Cleanup Burden." *Watertown Daily Times* 28 Nov 2003.

¹⁵⁵ Shampine, "Days of Ore."

The waste of production from 1889 to 1978 polluted local water sources and ecosystems. Contaminants at the site have included lead, asbestos, and mercury, although oil is the largest environmental concern.¹⁵⁶ The Benson Mine site is believed to have hosted New York State's largest industrial oil spill.¹⁵⁷ The Little River, a tributary of the Oswegatchie River, once contained an oil slick of diesel fuel, which leaked from the site.¹⁵⁸ The oil had been deposited on the ground between the Little River and the open pit where ore had been mined. Three twenty-four hour a day pumping stations were used to draw over 18,000 gallons of water a minute to remediate the spill.¹⁵⁹ From 1987 to 2000, the Department of Environmental Conservation spent over one million dollars on cleanup of the oil spill, and removed over a quarter million gallons of oil from the site.¹⁶⁰ Now a 2.5 mile long 'lake' marks the once open-pit mine.

Benson Mine has been targeted for redevelopment because jobs from any type of industry would stimulate the depressed economy of the local area. Many plans for the site, including the building of a toxic waste treatment plant, the building of a prison, and the use of the space by the air force, for "simulated bombing runs for the controversial cruise missile," have all failed.¹⁶¹ In 1991, Dongrove Holdings of New Brunswick bought the property with the intention of developing it into a wood-floor processing plant, but due to residual oil contamination, Dongrove was unable to move forward.¹⁶²

The St. Lawrence County Industrial Development Authority has applied for brownfields funding under conditions stated in the 1996 Clean Water/Clean Air Environmental Bond Act of the state; it has also has taken advantage of the federal Superfund law, which in 2003 underwent revisions to provide more money for

¹⁵⁶ Matthew Guardino. "Officials Push Plan for Using J&L Site." *Watertown Daily Times* 08 Jun 2000.

¹⁵⁷ Corey Fram. "Cleanup Plan for J&L Site Could Come This Year." *Watertown Daily Times* 17 Feb 2008.

¹⁵⁸ James Craig. "Cost of Oil Cleanup Crest \$100,000 DEC Foresees No End in sight for Operation at Little River." *Watertown Daily Times* 08 Apr 1988.

¹⁵⁹ Seely. "Nature Gives Unique Possibilities."

¹⁶⁰ Ibid.

¹⁶¹ Guardino, "Business Hopes."

¹⁶² Matthew Guardino. "Plan Would Revive Contaminated Site." *Watertown Daily Times* 19 Feb 2001.

brownfields remediation and redevelopment.¹⁶³ Revisions to the Superfund law lower the burden for the local contribution to remediation from 25% to 10% if the county industrial development agency were to seize the site for clean-up and redevelopment purposes.¹⁶⁴ Future plans for the abandoned site have included the building of a “small-scale manufacturing business or a light industrial park,” if the property can be adequately cleaned. Prospective companies could take advantage of the road and railroad, which although in bad repair, still link the abandoned mine to core areas of industry throughout the northeast.¹⁶⁵

Zinc Mining in the North Country

According to the US Geological Survey conducted in 1959, underground mines in New York mined arsenic, graphite, gypsum, iron, lead, natural cement, pyrite, salt, talc, wallastonite, and zinc. In St. Lawrence County, there have been four zinc mining facilities, including operations at the Hyatt mine near Talcville, the Edwards mine in Edwards, mines #2, 3, and 4 in Balmat, and the zinc mine in Pierrepont. As of 2010, all of the North Country zinc mines had stopped production because of chronically low market prices for zinc ore.¹⁶⁶

Zinc is used in galvanizing, which coats steel in a thin zinc layer to prevent corrosion.¹⁶⁷ Galvanized steel is used in many car parts and construction materials. Zinc oxide, the powdery pigment formed from zinc ore, is used in certain rubber and paints.¹⁶⁸ Zinc is also the basic component of pennies, but is hidden under an outer layer of copper.¹⁶⁹

¹⁶³ Ibid.

¹⁶⁴ Guardino, “Officials Push Plan.”

¹⁶⁵ Guardino, “Business Hopes.”

¹⁶⁶ E.M Leudeke, C.T Wrucke, and Graham, J.A. *Mineral occurrences of New York State with selected references to each locality: USGS Bull*, 1959.

¹⁶⁷ Floy Hyde. *Adirondack Forests, Fields, and Mines* (Binghamton: Vail-Ballou Press, 1974).

¹⁶⁸ Erik Zizzu. “North’s Striking Miners Watch as Zinc Prices Soar-Official Says Balmat’s Plant at Full

Case Study: St. Joe Minerals Corporation in Balmat/Edwards

In 1906, the New Yorkers, Lewis W. Francis, George M. Clark, and William S. Montgomery formed the Northern Ore Company of Edwards, NY. The company name was changed to the New York Zinc Company in 1923. Three years later, St. Joe Mineral Corporation bought New York Zinc to become the “largest combined producer of zinc and lead in the United States.”¹⁷⁰ The company mined in the towns of Balmat and Edwards, NY, and processed the ore at a mill in Balmat, which opened in 1972. At full capacity, the Balmat mill processed up to 4,300 tons of zinc ore each day.¹⁷¹ In 1974, the zinc deposits at the Balmat and Edward mines were providing New York State with all of its zinc and the nation with 10% of total zinc production.¹⁷² But, by 1981 the Balmat mill was processing only 2,000 tons of ore a day; still, the company employed 380 persons and contributed over 6.5 million dollars in annual wages to the local economy.¹⁷³

In 1985, 355 Balmat mine workers went on strike¹⁷⁴ in disputes over “pensions, health benefits, contracting out jobs and other issues.”¹⁷⁵ Two years later, the Zinc Corporation of America purchased the mines from St. Joe’s Mineral Corporation.¹⁷⁶ The new company did not recognize the strikers as its employees, and by 1990, using a new work force that was hired as replacements, the Balmat mine was producing between 110-135 tons a day, just a fraction of its former production.¹⁷⁷ In 1991, the U.S House of

Capacity” *Watertown Daily Times* 26 Jan 1989.

¹⁶⁹ Mitchell Flagg. “Zinc Fuels Large Chunk of County’s Economy” *Watertown Daily Times* 30 Dec 1994.

¹⁷⁰ Hyde, *Adirondack*, 189.

¹⁷¹ O’Brien & Gere Engineers, Inc. *Final Environmental Impact Statement: Proposed Mine Development and Operation, Town of Pierrepont, St. Lawrence County New York* (Syracuse, 1981), public hearing, 3.

¹⁷² Hyde, *Adirondack*, 188.

¹⁷³ O’Brien & Gere, *Final*, public hearing, 3.

¹⁷⁴ David Skolnick. “Zinc Corporation will make some Improvements to Balmat Operations.” *Watertown Daily Times* 06 Sept 1990.

¹⁷⁵ Mitchell Flagg. “Zinc Strikers Don’t Regret the Walkout.” *Watertown Daily Times* 22 Jul 1995.

¹⁷⁶ Zizzu, “North’s Striking.”

¹⁷⁷ Skolnick, “Zinc Corporation.”

Representative passed a bill stating that new workers could not be permanently hired to replace workers that were on strike.¹⁷⁸ The passing of this law would have made the United Steelworkers International Union a much stronger organization. However, this bill was never signed into federal law, and in 1994 the 35 to 40 miners who had remained on strike since 1985 finally called it quits after the local chapter of the United Steelworkers International Union ran out of money.¹⁷⁹

In 2001, the Balmat mine closed because of low zinc prices and over two hundred workers were laid off. At this time, St. Lawrence Zinc owned the mining operation.¹⁸⁰ The Balmat mine reopened in 2006 when zinc prices rose; however, the mine closed again when zinc prices dropped below eighty cents per pound. To make zinc mining economically feasible, it was necessary that zinc bring in at least \$1.25 per pound.¹⁸¹ Extracting ore at Balmat was costly due to the deep shafts of the mining operation.¹⁸²

In 2008, St. Lawrence Zinc found about twenty new areas for zinc exploration near Balmat through the use of electromagnetic mapping.¹⁸³ Production began yet again, but in May when Willard Clewis Jr. was killed by a falling rock while drilling 1,300 feet below ground, the federal Mine Safety and Health Administration (MSHA) flooded St. Lawrence Zinc with citations. These citations alleged that the company had not followed safety standards and adequate protocols. Three months later St. Lawrence Zinc laid off about 200 workers (80% of its work force). Only 30 to 35 people were kept employed to maintain the facilities and mine a small amount of ore. St. Lawrence Zinc

¹⁷⁸ James Donnelly. "Miners Applaud Strike Bill But Say It's Six Years Late." *Watertown Daily Times* 20 Jul 1991.

¹⁷⁹ Mitchell Flagg. "Mine Union Ends Pickets, Struggles On." *Watertown Daily Times* 29 Dec 1994.

¹⁸⁰ Martha Ellen. "Analyst Predicts Closure of Mine-St. Lawrence Zinc: Price Drops Company has no Plans to Stop." *Watertown Daily Times* 19 Jul 2008.

¹⁸¹ Martha Ellen. "St. Lawrence Zinc to Stop Production- Beginning of the Year: Mine Safety and Health Administration Notified Company Faces Heavy Fines." *Watertown Daily Times* 13 Dec 2008.

Martha Ellen. "Plan in Works to Restart Zinc Mining at Balmat." *Watertown Daily Times* 25 Mar 2010.

¹⁸² Martha Ellen. "Balmat Zinc Mine Unlikely to Reopen- Hudbay: St. Lawrence Zinc Parent Company Faces Revolt Stockholders Want Board Replaced." *Watertown Daily Times* 19 Mar 2009.

¹⁸³ Martha Ellen. "Hudbay Eyeing New Zinc Sources-Follow-up Search: St. Lawrence County has Mineral Rights at 3 Sites Firm Says Have Potential." *Watertown Daily Times* 03 Nov 2009.

explained to MSHA that it would stop exploring new sites for mining and would significantly limit production by 2009.¹⁸⁴ Miners terminated by the company received a regular salary for 60 days as compensation; the miners had been making about \$960 dollars per week.¹⁸⁵ Some miners openly vented about the situation. As James Hatfield said, “they did it the dirty way. We kept asking what was going on and none of them had the guts to tell us.” The general manager at the time of the layoffs refused to comment in any of the local newspapers.¹⁸⁶

In September 2008, the Stillwater Mining Company in Montana recruited just over 10% of the miners that had been laid off. As one miner said, “the challenge is having to leave home and family” to move out west. Stillwater made 26 offers of employment to miners, all of which were accepted.¹⁸⁷ Samuel Gallup, a miner who had accepted one of the offers, was laid off from Stillwater after only his first day of work, along with 525 of 1,770 Stillwater employees. His position was lost when the Stillwater mine suffered from drops in market prices for palladium and platinum, materials used in catalytic converters. By January, 2009, Stillwater planned to lay off another 370 workers.¹⁸⁸ By March 2010, the Balmat operation only employed twelve people.¹⁸⁹

Case Study: St. Joes Mineral Corporation in Pierrepont

In 1980, St. Joes Mineral Corporation discovered a zinc ore bed in the town of Pierrepont, NY. Mine operations at Pierrepont began in 1981 and concluded in 2002. The ore bed was believed to contain about 2.5 million tons of ore, with a zinc content of 15%. Engineers employed by the company determined that 500 tons of ore could be

¹⁸⁴ Ellen, “St. Lawrence Zinc.”

¹⁸⁵ Martha Ellen. “Company is Again Recruiting Miners-Jobs in Montana: Stillwater Looking for Laid-off Workers.” *Watertown Daily Times* 30 Aug 2008.

¹⁸⁶ Martha Ellen. “Balmat Miners Feared Job Loss-Angry Reaction: Some Say Company Should Have Revealed its Intentions Sooner.” *Watertown Daily Times* 23 Aug 2008.

¹⁸⁷ Martha Ellen. “Miners Accept Jobs in Montana-Zinc Mine Closing: Many from Balmat Agree to Move Out West.” *Watertown Daily Times* 20 Sep 2008.

¹⁸⁸ Martha Ellen. “Miners Having Ups and Downs-Work Hard to Find: Some from NNY Move Out West, Only to See New Jobs Disappear.” *Watertown Daily Times* 22 Nov 2008.

¹⁸⁹ Ellen, “Plan in Works”

brought to the surface each day, which would extend the operation for 20 years.¹⁹⁰ In order to begin mining the ore bed at Pierrepont, the company had to acquire land use permits, which could only be obtained after preparation of an Environmental Impact Statement. The permits included a freshwater wetlands Permit, wastewater discharge permit, mining permit, stream bed or bank disturbance permit, stream crossing or disturbance permit, zoning permit, and a building permit.¹⁹¹

In 1981, the St. Joe Zinc Company submitted a Draft Environmental Impact Statement (DEIS) to St. Lawrence County requesting the construction of an underground zinc mine. The proposed mine would be accessed “by a decline which would be tunneled in the outcropping rock and proceed downward at an 8 1/2% grade from a total distance of 4,000 feet.”¹⁹² Hydraulic jumbo drills and explosives would be used for ore extraction.

An Environmental Impact Statement is written to give transparency to a company’s main objectives, to inform community members of potential impacts, and to “minimize and prevent adverse environmental effects” while taking into account socio-economic resources and the effect of the plan on the “human environment.”¹⁹³ The National Environmental Policy Act, which was passed in the early 1970s, requires an EIS to assess land resources, such as topography, geology, soils, and slopes of an area; water resources, such as drainage, flood plains, water quality, and water supply; air resources, such as climate and air quality. The law also requires the inclusion of the public in the process of environmental review, in order to maintain an open democratic system. The EIS is distributed to public spaces, such as town libraries, where it can be read and studied by community members. A public hearing is held, and written comments are accepted, so that community members can voice concerns, questions, and/or comments on the proposed project.

A draft of St. Joe Zinc Company’s Environmental Impact Statement was made available to the public at the Canton Free Library and the St. Lawrence County Planning

¹⁹⁰ O’Brien & Gere, *Final*, public hearing, 3.

¹⁹¹ Ibid., executive summary, 5.

¹⁹² Ibid., executive summary, 4.

¹⁹³ Ibid., executive summary, 6.

Office. This draft was the basis for many comments that were made by community members in letters and at a public hearing in Canton, NY on March 19, 1981. The following are excerpts of testimony in reaction to the EIS draft.

1. *Mike Reilly-Director of the Environmental Planning for the Zinc Mining Division of St. Joe Resources Corporation in Balmat, New York*

- “I would like to state and St. Joe would like to state that we are anxious to get on with this project. We feel that it will be good for us and good for our employees, and will be good for the local area and will be good for St. Lawrence County...we have always tried to act responsibly in our many years of mining operations in St. Lawrence County and we continue to do so with the Pierrepont mine.”¹⁹⁴

2. *Dan Kelleher*

- Kelleher recognized the benefits of the proposed mine, including the added tax base, and more jobs, but was concerned about the level of noise. When the company drilled for preliminary ore samples, Kelleher was forced to listen to the drilling day and night. He explained his frustrations by saying, “it would seem to me that when you move into a peaceful rural area like this, where you will be creating noise that the people who live here will have to endure for 16 hours every work day for 20 years or more- it would be your responsibility to use the best noise control available... a St. Joe 23 ton 81 decibel diesel truck will be going by your house 11,000 times every year.”¹⁹⁵

3. *Chuck Cernera*

- “How many people have read the Impact Statement? How many have? Maybe about 10 out of 60. I’m just wondering what’s going to happen because there

¹⁹⁴ Ibid., public hearing, 4.

¹⁹⁵ Ibid., public hearing, 15.

was such a disregard of the inhabitants there of the area...I'm just frightful of what's gonna happen."¹⁹⁶

4. *Donald Cerner*

- The EIS was "very biased" and there was "little detailed information available."
- For example, the EIS indicated that "asbestos does create or does harbor a potential danger if inhaled but the Impact Statement mentioned the fact that there is no potential danger to drinking water which may in fact contain asbestos but that is wrong because they found that asbestos that is taken into the digestive tract can lead to stomach cancer, cancer of the colon, and various digestive problems"
- St. Joe made about 798 million dollars in 1980, and yet the company was paying pennies for individual's mineral rights.
- Cerner was concerned about changes to the water supply. "I feel that if I do lose my well and I have to now wait for water to be trucked in, I feel that the quality of my life is going to be very very heavily decreased"
- "I think I have a smattering of it but I really don't know the depth of this thing. I read in the New York Times that St. Joes is being bought by Segrams for \$2 billion and he wants to give me my 3 cents and acre or \$3 I don't understand the correlation of this zinc stuff here. I really don't understand what's going on."¹⁹⁷

5. *Albert Rinebold*

- He was worried that tax payers will be charged for maintenance of the haulage road. He thought the company should have to pay road maintenance costs.¹⁹⁸

¹⁹⁶ Ibid., public hearing, 16.

¹⁹⁷ Ibid., public hearing, 26.

¹⁹⁸ Ibid., public hearing, 21.

6. *Stuart Messinger*

- Messinger felt that effects of above normal radiation levels had not been adequately addressed in the EIS.¹⁹⁹
- “It can lead to such things as miscarriages and abnormal births and unknown aberrations and many far reaching effects that you may not see today you might see in 20 years.”²⁰⁰
- “What’s the additive effect of the radiation, the noise level, stress and strain of putting up with these trucks, decreased water supply?”²⁰¹

7. *William Cook-Director of the Office of Economic Development for St. Lawrence county*

- William Cook expressed concern about the 1981 unemployment rate in St. Lawrence County, 12%, which was amplified by “layoffs at Central Foundry, the St. Lawrence Railroad, and St. Lawrence Pulp and Paper ...” In the St. Lawrence County, “29% of the people employed...work for governments and an additional 2% are employed in the Service and Miscellaneous category.”
- The mine at Pierrepont would stimulate the area’s construction industry, provide thirty-five private sector jobs at the mine and Balmat mill, safeguard employment at the Balmat mill, and provide a “stable flow of wages and tax revenues for the County’s economy” for twenty years. For these reason, the Director of the Office of Economic Development for St. Lawrence County fully supports the mine “as an environmentally sound method of economic development.”²⁰²

¹⁹⁹ Ibid., public hearing, 21.

²⁰⁰ Ibid., public hearing, 22.

²⁰¹ Ibid.

²⁰² Ibid., public hearing, 24.

8. *Ken Friedel, Jr*

- “I believe the large corporation should be closely monitored. I do believe that everything here should be taken in to consideration but I do consider myself a working man and in lieu of the high unemployment of this area and the declining jobs and the difficulty of raising a family, I do believe that we should proceed as fast as possible as bringing this income to this area in the hopes that for myself and my friends may be able to find a job driving one of these noisy, dirty trucks.”²⁰³

The Final Environmental Impact Statement submitted by the St. Joe Zinc Company was a revision of the draft. It included the transcripts that had been recorded at the public hearing and the company’s response to statements made at the public hearing. The Final EIS addressed areas of major environmental concern, including but not limited to, the mine’s effect on water quality and runoff into the nearby Van Rensselaer Creek, the mine’s effect on the Village of Canton’s upland water supply, the possible threat of asbestos minerals and radiation at the site, the degradation of roads from heavy trucking when moving ore from the Pierrepont mine to an existing mill at Balmat, and the impact of noise and its effect on quality of life.



Fig 9: Abandoned site of old company buildings

²⁰³ Ibid., public hearing, 27.



Fig 10: Filled in mine shaft

Discussion and Conclusion

The testimonies in the EIS reflect particular characteristics of the social and political theory introduced in the first section of the thesis. As a basic tool of policy-making, the entire process of preparing an EIS strives to address the first dimension of power. It attempts to reduce inequalities through the use of an open democratic system that equally shares the process of environmental review with the non-elite. As seen in the above case, the system is supposedly open because the EIS gives alleged transparency to the company's objectives, and the public was able to express grievances and concerns at a public hearing. However, when taking into account the second dimension of power, local residents did not actually have equal access to decision-making processes; instead, the elite invited the illusion that the power relationship can be challenged. One way the company isolates the public from the decision-making process is with the control of information. When Cernera states, "I think I have a smattering of it but I really don't know the depth of this thing," he is expressing frustration with his inability to gather all the facts. Public input is based largely on the information in the EIS. The selectivity of wording, the occasional sugar coating of major issues, and certain inconsistencies in the EIS all warrant a closer examination that

Certera, as a citizen, is able to perform. In the end, the zinc company and its consultants framed the issues in a way that limited citizen participation. The third dimension of power, which recognizes the ability of the elite to shape the desire of the non-elite by influencing their very wants and expectations, is also evident here. For example, when Fridel states, “in lieu of the high unemployment of this area and the declining jobs and the difficulty of raising a family, I do believe we should proceed as fast as possible in bringing this income to this area,” he reveals his own personal dependency on the market economy and reflects the belief of many residents that the region has an unavoidable, deep-rooted reliance on an industrial economy.

Similar to the early residents of central Appalachia, who largely practiced subsistence agriculture and “social organization based on kinship,” early settlers to the North Country also practiced subsistence agriculture.²⁰⁴ However, with the introduction of bituminous coal mining in the early 20th century to Appalachia, and the introduction of various types of mining into northern New York in the early 1800s, the economic basis of communities changed.

With the arrival of mining companies came a reorganization of power. When the American Associated Ltd. moved into Appalachia, it brought an industrial order that permeated the public consciousness. According to the third dimension of power, the company shaped the desires of the non-elite by “changing their demands and expectations.”²⁰⁵ Company towns began to dot the landscape, not only in Appalachia, but also throughout the North Country. An excellent example is Lyon Mountain in Franklin County. The Chateaugay Iron and Ore Company maintained enormous power over people’s lives by controlling housing, town government, and wages. At one time, “scrips,” or coupons, were given instead of wages and could only be used at the company store. Management also controlled the local media and pressured religious leaders to cajole striking miners back to work.

²⁰⁴ Philip Terrie, *Contested Terrain: A New History of Nature and People in the Adirondacks* (New York: Praeger Publishers, 1990), 23.

²⁰⁵ Gaventa, *Power*, 12.

Subsistence farmers were dependent for their success on the quality of the soil where they settled, the capricious nature of weather, and other geographical factors over which they had little control. They were also dependent on each other. They shared goods, labor, and a host of services. But with the rise of market capitalism, residents of rural areas became less dependent on the land and more dependent on corporations, often with headquarters based elsewhere. This dependency extended to the provision of basic needs, food and clothing from the company store, and company housing. It also produced a certain acceptance of risks. In a market economy, mining companies had an economic hold that regulated the lives of residents. In the town of Gouverneur, mining offered one of the few well-paying jobs. Because of this, miners were hesitant to question the health effects of talc exposure, or to admit to symptoms of asbestosis or mesothelioma. Other community members, such as the local radiologists and doctors, also felt pressure from the company. If physicians diagnosed miners with mesothelioma, they were fired from the community hospital. In this way, the companies influenced what was and what wasn't an occupational disease for which they could be held liable. Miners who objected were trapped in the first dimension of powerlessness, by a company that simply exerted its will. They were also trapped in the second dimension of powerlessness by a company that influenced laws and regulations. And in maintaining an economic hold on residents, the mining company was able to wield the third dimension of power by influencing the very expectations about life in a mining town.

As with Appalachia, North Country towns, were often geographically isolated from urban centers. According to the core periphery model, with increasing distance from the core, levels of wealth, development, and standards of living typically decrease. The North Country towns were subject to the whims of the mining industry, and the boom and bust cycles for iron and especially for zinc. Unlike in Appalachia, where technology replaced jobs during the second World War, employment opportunities in North Country mining actually expanded as technological innovations allowed mines to re-open and develop during World War II.

Although resource rich, peripheral towns were economically poor; mining companies pocketed most of the wealth obtained from ore and mineral deposits. Because the ore and minerals were transported from the periphery to urban areas for processing and utilization, the periphery received minimal financial benefit from manufacturing and sale of final products.

Occasionally, miners recognized how mining companies were exploiting their labor for profit and took action to obtain a greater share of the revenue. This recognition was seen in both the actions of Appalachian miners in the 1930s and the actions of zinc miners in the mid- 1980s. In both cases, however, the companies were able to thwart the actions of the miners. In Appalachia, violence and a policy of evasion were used to keep miners in the first and second dimensions of powerlessness. In the North Country, a similar policy of avoidance, as well as changes in company ownership, kept miners in the dark.

In the case of striking zinc miners at St. Joes Mineral Corporations, replacements were permanently hired once Zinc Corporation took control. Striking workers were just let go. In the case of talc miners, a change in corporate ownership selected against miners who had any evidence of mesothelioma. Sick miners were simply not rehired by the new company.

Because the miners did not have equal access to decision making power, they were unaware of the negotiations taking place when International Talc was transferring corporate ownership to Gouverneur Talc. As one miner said “we knew they was gonna sell out, but we never knew when.”²⁰⁶ The miners’ lack of participation in company politics ultimately silenced their voices; they were never consulted on the conditions of the sale. The miners were furthered hindered when they unsuccessfully tried to navigate government programs for compensation. “Roadblock after depressing roadblock...[slowed]...their progress towards obtaining aid from Workmen’s Compensation, Social Security, or Unemployment Insurance,” a sure result of “government bureaucracy adhering closely to the ‘letter’ of the law while neglecting the

²⁰⁶ Fitzsimons, “Through the Mill,”3.

important 'spirit' of the enacting legislation.”²⁰⁷ Not only were the miners unable to penetrate the thick skin of bureaucracy, but they lacked the financial means to effectively challenge bureaucratic red-tape through legal action. Lacking access to corporate changeovers, unaware that workers affected with disease would be fired, and unable to utilize government programs, North Country talc miners were surely trapped in the first and second dimension of powerlessness so characteristic of peripheral regions.

Management of Gouverneur Talc employed the third dimension of power by convincing the miners that talc “dust” was safe. Herb Conklin, a talc miner for thirty years stated, “they claimed the dust was safe, non asbestiform...they posted signs on the bulletin board saying the government doctors, the guys from NIOSH, were wrong, that it wasn’t dangerous.”²⁰⁸ Not only did the company advertise the safeness of talc “dust,” it enlisted the aid of company doctors to drive the point home. According to retired talc miners, “company doctors hid the illness from them.” As Charlie Minckler, a former miner, said, “we took company physicals every year...they knew whose lungs were shot, but they wouldn’t tell us and they wouldn’t send us to a specialist.”²⁰⁹ By downplaying the risks of “dust” exposure, and withholding accurate health information, the mining company effectively altered the miners’ beliefs and attitudes towards “dust.”

Gouverneur Talc, and later R.T Vanderbilt, chose to lie about the dangers of talc dust because acknowledgment of the health effects would negatively impact business. Workers would be hard to find, and lawsuits would significantly reduce profits. However, when business was going well for companies, they often donated money to community development projects. This was also evident when contributions were made to the school and hospital in Star Lake. Even so, it is important to note that the primary corporate objectives were always to colonize the periphery for financial gain. More often than not, the needs and interests of local residents were forgotten in times of economic decline. For example, when Benson Mine closed, the company abandoned the

²⁰⁷ Ibid., 4.

²⁰⁸ Schneider, “It didn’t matter,” 2.

²⁰⁹ Ibid., 4.

site and town, leaving an industrial wasteland and crumbling tax base. The mines in the vicinity of Gouverneur were similarly abandoned by International Talc, although being a larger and more diverse community, Gouverneur, was able to more effectively absorb the loss. When corporations abandon communities in peripheral areas, the impacts are quite devastating. From time to time, people recognize the need to provide alternatives. Sometimes, this recognition comes from outside the region; sometimes, this recognition comes from within.

President Kennedy's Appalachian Development Highway System (ADHS), built in the 1960s and 70s to bridge the developmental gap between the Appalachian periphery and core areas, did not solve the problem of poverty in Appalachia. Instead, it simply facilitated the movement of people and goods out of or through the periphery and into the cores. Rural Appalachia remained poor. Similarly, the railroad from Star Lake to the steel centers of Pittsburgh, Aliquippa and Cleveland, did nothing to redistribute wealth. Although more than one million tons of iron ore left Star Lake each year by train, the community received little in return. Transportation infrastructure tends to be a one-way route, taking away from the periphery and feeding the core.

In recent years, New York state governors David A. Paterson and Andrew Coumo have been pressured to support the Interstate 98 project, which would connect interstates 81 and 87, primarily by following the Route 11 corridor, with spurs to Massena and Ogdensburg. In the past, this proposed interstate was called the "rooftop highway," but advocates began to term it Interstate 98 in order to make their vision more tangible. Proponents of the rooftop highway deem that the road would stimulate economic development of the North Country; they have estimated that the highway would create 27,000 new jobs.²¹⁰ However, opponents of the plan, such as Richard Grover, the former director of the St. Lawrence County planning office, have called the project a "pipe dream" that is financially unfeasible at the present time.²¹¹ Still, local government leaders, frustrated by high levels of poverty and unemployment, have

²¹⁰ Laura Bomyea. "Party Leaders Sign Letter Supporting I-98" *Watertown Daily Times* 15 Jul 2010.

²¹¹ Elizabeth Graham. "Former Planner Dismisses I-98 Idea/Letter to Coumo: Route 11 Upgrades More Viable, DOT Says." *Watertown Daily Times* 05 Feb 2011.

spoken: “we cannot let our youth and jobs slip away anymore”²¹² and leaders from both parties in each of the eleven counties of the 23rd Congressional District have signed onto a letter in support of the project.²¹³ Sue Montgomery-Corey, Essex County Democratic Committee Chairwoman, was the only person not to sign the letter.

Montgomery-Corey refused to sign the letter because she believed that state transportation funds would be better allocated elsewhere. As she said, “[the rooftop highway] is great for all of the bigger communities, but for the little ones, it may not be such a good thing...small communities like Minerva struggle to try to figure out how to have jobs for people, and we all try to support small business; I'm just not sure those entities will be supported very well by this project.”²¹⁴ Montgomery-Corey understands the implications of the core periphery model for the North Country, and is thus able to break out of the third dimension of powerlessness. The proposed Interstate 98 project is a false promise. It will not improve the North Country any more than the New York Central Railroad aided southern St. Lawrence County or the Kennedy proposal for interstate highways benefited Appalachia. Whereas Montgomery-Corey recognizes that I-98 will simply facilitate, not stem, the exodus of people and resources from the region, the beliefs of other party leaders continue to be shaped by the third dimension of power. They willingly believe that any form of development is economically beneficial, even when history suggests otherwise.

Throughout my research, I have found that the public is continually disadvantaged by a flawed capitalist economy that systematically favors the elite. I have seen history speak to the present, and in so doing, have recognized the failure of government officials to learn from lessons of the past. As C Wright Mills notes, “men are free to make history, but... some men are indeed much freer than others. For such freedom requires access to the means of decision and of power by which history can now be made.”²¹⁵ Mills is referring to the second dimension of power, in which the non-elite are removed from controlling decision-making processes. Separation from

²¹² Oxbow Maloy. “Highway Needs Help.” *Watertown Daily Times* 05 Nov 2001.

²¹³ Bomyea, “Party Leaders.”

²¹⁴ Bomyea, “Party Leaders.”

²¹⁵ C. Wright Mills. *The Power Elite* (New York: Oxford University Press, 1956), 455.

decision-making processes compels the non-elite to “lose their sense of political belonging because they do not belong” and “their political will because they see no way to realize it.”²¹⁶ Thus, the power elite are able “to manage and to manipulate the consent of men.”²¹⁷ With a loss of political will, arising from the manipulation of beliefs and attitudes, a culture of silence is perpetuated. It is the silence that I encountered when I first began this project.

²¹⁶ Ibid., 464.

²¹⁷ Ibid., 454.

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