

CHAPTER 2. ZINC: EVOKING CONTESTED NOTIONS

Opening the white envelope that arrived in the mail from the American Zinc Association, lustrous metallic pamphlets slid easily onto my desktop. On them were images, peaceful and serene. The one titled, “Zinc, Essential to Life” portrayed a calm baby, swaddled in clean, soft white and gender-neutral yellow blankets. A slender well-manicured hand gently caresses the child. Another booklet, “Zinc, Essentially Everywhere” has healthful-looking representations of fish, crabs and greenbeans dancing wholesomely in the upper corner. The pictures were not unlike those found on nutritional guides provided by health care professionals. The texts, as the images, were equally reassuring: zinc occurs naturally in the body...is essential for life-- especially for pregnant women...aids in treating eating disorders...protects the unborn...bolsters cells in the body’s immune system...boosts brain activity...wards off aging processes...moderates fatigue...increases male sperm count...and even cuts short the duration of the common cold. Outside the human body, zinc works hard for healing baby’s first diaper rash....fights bacteria...and is a valuable product in soaps, shampoos and fine skin-care products. Few contemporary issues remain untouched by the authors of the promotional guides. The materials “speak” through their images. The zinc texts contain referents that capitalized on fashionable American obsessions: family values, the rights of the unborn; AIDS; preoccupation with a youthful body, health care, and diets; women’s beauty as objects of desire, and male virility. The materials teach that users of industrial products also benefit from the valuable properties of zinc. It is employed in coatings that defend against corrosion and rust. Bridges, ships and beach chairs are all protected by this silverish wonder-metal. The brochure, “Zinc, Recycled Forever” extols zinc as a natural resource that can be recycled endlessly, offering environmental and economic benefits. Heavily footnoted, the pamphlets from the American Zinc Association are texts that speak from the authority of science, the corporate boardroom, and popular American culture.

Although the claims made in the pamphlets are undoubtedly authentic, the story is only half told by them. The images contained in the promotional materials denote a condition that is partial and incomplete. Manufactured zinc products have a lifecycle with implications extending far beyond the world constructed by the tradegroup advertisements that I held in my hands. This study is about a side of life not represented in the asymmetrical messages of their documents. It is concerned about the people and the natural environment in Palmerton, Pennsylvania, a town on the eastern edge of the Appalachian Mountains, and one of the fountainheads from which has flowed a steady stream of the world's zinc for nearly a century. The other half of the story is that in the course of zinc production, from 1898 to the closing of smelters in 1980, the industry annually released 47 tons of cadmium, 95 tons of lead and 3,575 tons of zinc into the air, resulting in a technical environmental disaster. Furthermore, the US Environmental Protection Agency reports that contemporary activities are amplifying this contamination.

Fish, such as the healthful salmon-colored one pictured on the brochure "Zinc, Essentially Everywhere," do not come from the Palmerton's nearby Aquashicola Creek. Some gardeners in the town would wonder about the safety of the greenbeans that are so delicately pictured on the front page of the American Zinc Association's promotional materials, had they been grown in their community. Too, historical and contemporary zinc operations raise questions whether the children of Palmerton are as secure as the baby warmly blanketed in yellow on the advertising material; information distributed by those with vested interest in the production of this heavy metal. The one claim heralded by the advertisements that would remain uncontested by locals in the town is that zinc fights bacteria. The barren mountains surrounding the community are an exanimate testimony. They are scattered with dead and dying trees, some that expired decades ago, but which never decayed since high levels of zinc have eliminated the microbes that foster natural decomposition of fallen vegetation.

To many in the town of Palmerton, Pennsylvania, the word "zinc" evokes contested notions. A town once proud to be known by the appellation, "Zinc City," is today a Federal Superfund site because of industrial zinc operations. Superfund, the result of the US Congress'

legislation known as The Comprehensive Response, Compensation, and Liability Act (CERCLA) of 1980, identifies and decontaminates “toxic chemicals from abandoned dumpsites” (Davis, 1995, p. 343). On December 21, 1982, the front page of the Allentown, Pennsylvania *Morning Call* heralded a new era in Palmerton’s history. The day before, the US government had announced a list of the nation’s 418 most contaminated sites; Palmerton Zinc Pile was part of the USEPA’s priority cleanup action (Effron, 1982). Palmerton is on the National Priority List (NPL) for remediation of heavy metals, such as lead and cadmium--metals associated with zinc production.

Mapping the Terrain of Environmental Fatigue and Exhaustion

Palmerton lies at the gateway to the Poconos--a scenic area in the northeast corner of the Commonwealth of Pennsylvania renowned for its breathtaking beauty. It’s the kind of town where motorists still politely stop for pedestrians in the crosswalks on the bustling main street at the foot of Blue Mountain. Tourists, skiers, backpackers and other nature enthusiasts flood into the region in all seasons. With brilliant autumn foliage, snows rich and often deep, a prize white water river for three-season recreation, and internationally famous mountain biking trails through verdant forests, the region is paradise to many. The Appalachian Trail, the 2,022 mile spine that extends from Mt. Katahdin, Maine to Springer Mountain, Georgia, penetrates the territory.

Although the Appalachian Trail snakes its way through 14 states under a multitude of ecological conditions, it is in Pennsylvania where powerful environmental damage is encountered. Hikers and backpackers call the region of the trail that slabs above Palmerton, “Dante’s Inferno”--and for good reason. For many decades, fumes, smoke and dust from zinc smelting operations clouded the sky, sometimes requiring motorists driving in the valley below to use headlights at noon. And, when the days were clear, the view from this part of the Trail was desolate and barren. The ecological damage is evident for all to see; even the current operators

of the town's zinc industrial facility have labeled the mountain a "biological wasteland" (*HRD, Remediation Services: Sensible Solutions to Environmental Problems*, April, 1991, p. 4, and *HRD, ECOLOAM: A Scientifically Formulated Topsoil Designed Primarily for Land Reclamation and Agriforestry*, October, 1992, p. 4). Fortunately, environmental regulations and changes in metallurgic operations have eliminated the thick clouded atmosphere. But, to this day massive portions of the mountainside remain unvegetated, or poorly vegetated. In some crevasses, the few stunted and twisted trees that cling to the rocky hillside bear yellowed leaves at the height of the growing season when other plants are verdant. Dry sun-bleached logs remain strewn about the mountain slope.

This study involves mapping the terrain of environmental fatigue beyond the more obvious ecological exhaustion. It examines the ideological contests in which the town's folk are engaged as they struggle to make sense of their lives at the site of a technical disaster. At the specific level, the study explores the sorties of a small group of citizens, predominately women, known as the Palmerton Citizens for a Clean Environment (PCCE), as they struggle to assert a new set of meanings to community toxic exposure, and as these citizens attempt to prevent the makers of the dominant industrial discourse from reappropriating the sites and signifiers of resistance, reinvesting them with a renewed hegemonic sense. This glance into life in Palmerton, Pennsylvania brings to light the labors of PCCE as it sought to create new values--where new values were understood to mean creating rules, policies, practices and institutions that reflected environmental reform.

Palmerton, a community in rural Carbon County, Pennsylvania, lies in the Lehigh valley, along the Aquashicola Creek. The land surrounding Palmerton has a population of approximately 13,000 persons, with 5,500 residing within the borough boundaries. The 1980 census found that about 850 individuals lived within one mile of the toxic waste pile known as the Cinder Pile (Cinder Bank). The town is bound by the Blue Mountains (elevation 1500 feet) to the south, and Stony Ridge (elevation 900 feet) on the north. The community is 99.4% white and 0.6% "other." Eighty five percent of the residents are classified as "native" (born in Pennsylvania and living there at the time of the 1990 census); 63% are "non-movers (same

location in 1990 as in 1985); 19% were intra-county movers; 11% were inter-county movers; while 7% moved to Palmerton from other states between 1985 and 1990. Palmerton is one of the largest hazardous waste sites in the country. From 1898 to 1980 zinc smelters polluted the landscape. Arguably, lead and other heavy metals are still contaminating the area from legally permitted operations.

In 1984 USEPA began its remedial investigation to determine the effects of zinc industry activities on the surrounding environment and to correct the contamination (*The Morning Call*, 1984, p. B1, B3). Within days of proposing the investigations, USEPA was under attack from the Carbon County Commissioners, for fear that it “could drive the firm out of business” (Hawk, 1984a, p. B1). This was the first in a long list of occasions where an economic discourse drove the meaning of contamination. Meetings that followed showed public hostility to the proposal. USEPA continued to push for the investigations (Pribish, 1984; Frable, 1984) and dismayed many locals when the agency announced that it would sue the potentially responsible parties (PRPs), which turned out to be in part the zinc industry and affiliates (See Appendix 1), to recover clean up costs (Hawk, 1984b).

In order to manage the damage, USEPA’s Palmerton Site was divided into four “Operable Units” (OUs): OU 1, the restoration of 1000 acres of the more than 2000 treeless acres on Blue Mountain; OU 2, cleanup of the 33 million ton Cinder Bank begun in 1913--the current manufacturing facility, known as the East Plant is also part of this Operable Unit; OU 3, listed in the fact sheets from USEPA as sites for the removal of the threat of valley soil contamination to small children and pregnant women and assessment of the risk to other residents, is cited in a court order as made up of commercial and residential areas including the entire Borough of Palmerton, parts of Aquashicola and a former facility known as the West Plant; and OU 4, remediation of ground water and surface water contamination located in the other three OUs.

Research indicates “The air is contaminated with heavy metals such as lead, cadmium, and zinc from former process wastes. Nearby wells and soils are contaminated with zinc and cadmium from the former site operations. Aquashicola Creek is contaminated with zinc and

cadmium from surface runoff. People who touch or accidentally ingest contaminated groundwater or surface water may be at risk. Contaminants have been found in soil and garden vegetables may pose a health threat to people who eat the vegetables. At one point, the EPA considered making a temporary request that “residents...stop growing green vegetables” (Devlin, 1981). Children in Palmerton have been found to have elevated levels of cadmium and lead in their hair and blood. Fish in Aquashicola Creek contain bioaccumulated contaminants, and eating them poses a health threat. Horses and cattle that graze in the area have high concentrations of lead and cadmium which has caused substantiated cases of illnesses and fatigue” (Superfund: Progress at National Priority List Sites, 1992, p. 161).

In addition to metals from the historical contamination that occurred from 1898 to 1980, the USEPA has declared that “the lead found in the yards [at Palmerton] is attributable to both primary zinc smelting and [current Electric Arc Furnace] dust recycling” (Palmerton Zinc Superfund Site Update, February/1994, p. 1). The zinc smelting processes have ceased, however, the recycling activities are an on-going practice of the company. The present operations have been cited as a source of lead contamination on numerous occasions, most recently in a 1995 USEPA document (Palmerton Zinc Site Fact Sheet, December/1995, p. 4). Additionally, USEPA states that “the lead found in local Palmerton soils, such as residential yards, is also found in the residential or house dust” (Palmerton Zinc Superfund Update, 1994, p. 1). The federal government has leveled the charge, “Horsehead Industries and Paramount Communications, both of which owned the zinc smelting plant at one time, are responsible for major portions of the residential contamination” (p. 1). One significance of this is the USEPA can recover the cost of clean up from the zinc industry and all additional potentially responsible parties after the site is decontaminated.

It was common to hear citizens’ dissatisfaction with anti-pollution agencies in comments such as, “[they] don’t know what they’re talking about,” “people survived for years before these people came in,” and “government agencies just went overboard” (Frable, 1982, p. 7). Little controversy, aside from the initial opposition to the USEPA listing of Palmerton, followed in the mid-1980s. Beginning in 1981, the Waelz kiln facilities of New Jersey Zinc Company

were converted to Electric Arc Furnace (EAF) dust--a government listed hazardous material--recycling operations. In 1988, the company proposed the on-site storage of EAF dust from steel mills. Lead and cadmium, associated with EAF processing, also were cited as concerns. Considerable contention erupted in the community (Walters, 1988; Connolly, 1988; and Orenstein & Connolly, 1988) over the EAF issue. During 1991 there were several dozen news casts on local television stations concerning the contamination in Palmerton¹, and the EAF storage permit. The telecasts uniformly cite citizen concerns that the EAF dust, as a hazardous material, would simply add to the already troublesome Superfund problems. During this time, the town's people became especially polarized between two standpoints: citizens who opposed the Superfund designation, and those who endorsed it. In 1990, a local grassroots emergent citizens group (ECG), the Palmerton Citizens for a Clean Environment (PCCE), formed. Their goal was to secure a safe environment; they favored the USEPA Superfund cleanup and strict government regulation of EAF issues.

The Palmerton Chamber of Commerce and the Pro-Palmerton Coalition claimed, “[USEPA’s action was an] “unwarranted invasion of our town” (Fried, 1994a, p. A12), a cry that was echoed by numerous others in the community. By 1994, USEPA attention to the pollution resulted in what one news reporter called an “environmental civil war” raging in Palmerton. Although the town has been portrayed as one where boys walked down the streets with fishing poles in hand, and where soda fountains served rich double-chocolate sodas “for a bit more than a buck” (Fried, 1994a, A1), there was a low-level contest for who would control the meaning of the blighted landscape and the potential threat to human health and property. A struggle for cultural authority was engaged.

¹ I am especially grateful to Ms. Ellen Colangelo, PCCE member, who made available to me video tapes of these newscasts. Regrettably, each news cast was not dated. Circumstantial internal evidence indicates that they were aired from January, 1991 until autumn, 1991. One of the primary sources of media information was WNEP TV, Wilkes-Barre, PA. Conversations with Reporter Robert Reynolds, and station employee Mr. Len Modalesky did not result in permission to view WNEP TV video library copies, as requested. A letter to station manager Mr. Frank Andrews, seeking permission to review the Palmerton news stories, dated October 30, 1996 went unanswered. Silence and uncooperation such as this was the norm during this study.