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Biopolitics and Bottled Water: Fryeburg, Maine, and the Legalized Uncertainty of Environmental Change

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Abstract
Marcus looks at the environmental politics of the bottled water industry in a small Maine town

Biopolitics and Bottled Water

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Introduction

Fryeburg, Maine, is a small town of about 3,000 people that occupies 58.3 square miles of land along the Saco River in the southwest part of the state. In this essay, I first describe the natural and human histories of Fryeburg, paying special attention to the presence and use of water resources over time. Specifically, I analyze how changes in Fryeburg's economic and social landscapes were impacted by the presence of water. Later, I analyze how the interests of multinational corporations have become pervasive in Fryeburg's political system, creating a power differential in which the interests of local residents are often marginalized by scientific claims to objectivity. In this way, Fryeburg's unique physical location has resulted in a biopolitical atmosphere that has made possible the use of its water resources over the past 150 years, first by Europeans, later by a publicly funded municipal water company, and finally by bottled water conglomerates. This fusion of the scientific and the political has resulted in an environmental history that is deeply influenced by powerful, corporate interests, who employ the objective nature of science to protect its key interests, creating a subjective biopolitical system that is legally validated by municipal courts.

A Brief History of Fryeburg: Natural Beauty and Human Agents

Situated in southwest Maine, Fryeburg touches the eastern edge of the White Mountains and parts of the Saco River that are known by the Abenaki people, an Indian tribe indigenous to

the region, as "Pequawket," meaning "Land of the Hollows." Fryeburg's political boundaries were not defined until 1763, when they were first designated by a grant approved by Queen of England, and were later expanded in the mid-1850s. Prior to 1763 the Abenaki people cordoned Maine into four sections, of which Pequawket was one. Prior to that, no political order was legally imposed.

It is this time, before legal boundaries divided Maine into municipalities, to which I turn. Ethnohistory and archeology inform our understanding of the natural history of Fryeburg.

According to the Abenaki, about 13,000 to 10,000 years before present the land in western Maine was covered in ice. The peaks of the White Hills such as Mount Washington were visible above the ice, but the ice prohibited many plant and animal species from inhabiting the land. This aligns with estimates of the timing of the last glacial period, which left "eroded mountains, boulders, drumlins, sand, gravel, and hundreds of lakes" in its shadow.[1] Fertile soil and water became more plentiful as summers began to warm. Seeds of grasses and ferns replaced previously barren landscapes, and animals followed. The land was able to support humans during the summer months, which caused the Abenaki to migrate seasonally. Eventually, species of game animals and fish repopulated rivers and woods.

For the next 10,000 years the area between the White Hills and the Saco River continued to warm as a result of the interglacial period. Plant and animal species flourished and water levels continued to rise. The beaver appeared, creating dams that allowed the growth of blueberries and raspberries, wild rice, and rushes. Pike and bass swam in the Saco. As trees replaced the tundra of the ice age, hickory, maple, and birch trees began to grow into forests, and fruit and nuts became much more plentiful.[2]

1 Russell M. Lawson, *Passaconaway's Realm : Captain John Evans and the Exploration of Mount Washington* (Hanover, NH: University Press of New England, 2002), 3.
2 Ibid., 4.

Up until this point, voices of the Abenaki have been relied on to interpret the natural history of the region. Much of this aligns with what is deemed scientific truth. But we must not be led astray by the voices of the Abenaki, whose position was inevitably interrupted by Europeans in the 17th century. I now turn to European exploration as a window into what they call "natural" – for anything before their arrival was deemed pre-historical material.

The soil, as newly arrived Europeans found, was gravelly, sandy, or a bit rocky. It was acidic and not as fertile as Europeans first reported (reports that may have been more to advertise the "New World" than to accurately document the soil's fertility). Then, as now, fertile, sandy loams of soil existed near bodies of water with good air drainage.[3] This is not to say that the land was barren; quite the contrary, as indicated above, its natural harvest was bountiful, and the Saco River probably saved the lives of many Europeans.

Woodlands in Maine were plentiful, but young. Henry David Thoreau, in a trip to the Maine Woods, noted that the trees are tall, but not very thick, indicating that they had been cleared in the past by previous Europeans and were not very old in age. Forests did cover almost all of Maine, much more than they do at the present time, and this encouraged wealthy European tourists to explore the White Hills.

The White Mountains span much of Vermont and New Hampshire, and a small section of southwestern Maine. Fryeburg is just east of Mount Washington, the largest peak in the White Mountains. The mountains were filled with rough terrain and thick forests. Rivers began to flow more quickly and springs and ponds could be found in the valleys and in clearings.[4] Forests were populated by moose, dear, bear, wolves, wildcats, and beavers, among others. Winters were frigid, and water bodies remained frozen between November and March. Because of Fryeburg's

3 Ibid., 119.

4 Christopher Johnson, *This Grand & Magnificent Place: The Wilderness Heritage of the White Mountains* (Durham, NH: University of New Hampshire Press, 2006), 12.

proximity to Mount Washington, sunlight and rainfall were plentiful, and its seasonal conditions were well-defined.

The Abenaki believed that nature consisted of living beings that were ingrained with the Great Spirit, who was responsible for the creation of the world. They treasured nature, and its use. Europeans treasured the natural state of the White Hills, but for different reasons. They saw "picturesque" images around them as they explored meadows and brooks in the mountains.[5] It was such passionate reports of natural beauty from the late 17th and early 18th centuries that encouraged European tourists and profiteers alike to travel or even move to the White Mountains for years to come, following the plethora of timber and fertile soils in southwest Maine.

Thoreau marvels, "It was not lawn, nor pasture, nor mead, nor woodland…It was the fresh and natural surface of planet Earth."[6] This tourism continued through the middle of the 19th century. Thomas Starr King writes in 1859 that he desires that "tourists…appreciate landscape more adequately; and to associate with the principal scenes poetic passages which illustrate…the permanent character of the views."[7] These transcendentalists and naturalists were awed at the beauty of the natural world of the White Mountains. These sentiments continue to cause tourists to swarm to southwest Maine in the summer and fall months. Transcendentalists' and tourists' adoration of the White Mountains was contagious.

The Saco River gets its name from an Abenaki word that translates to "Land where the river comes out." The river originates in the White Mountains, spans New Hampshire and southern Maine, and empties into the Atlantic Ocean. It is another popular attraction for 19th century transcendentalists. In the river valley, "brooks go tinkling with silvery feet"[8] and "lakes…lie up so high" that they create "a blue mountain, like amethyst jewels set around some

5 Ibid., 31.
6 Henry David Thoreau, *The Illustrated Maine Woods*, ed. Joseph J. Moldenhauer (Princeton, NJ: Princeton University Press, 1974), 70.
7 Thomas Starr King, *The White Hills: Their Legends, Landscapes, and Poetry* (Boston, MA: Crosby, Nichols, and Lee, 1859), vii.
8 Ibid., 139.

jewel of the first water."[9] The forest along the river was continuous, with thick woods that appeared to be endless, except for the bare mountaintops in the distance. White pine, spruce, and birch trees filled the Saco River Valley, creating habitats for small animal species.[10] Along the river the soil was fertile. Small plants could flourish.

It is surprising, perhaps, that the landscape has not changed all that much. I have illustrated the area that surrounds Fryeburg as a space filled with cultural and material resources, one that unsurprisingly attracted Indians thousands of years before it attracted the Europeans. Just as the land itself appealed to settlers, settlement resulted in many forms of controversy. Although much of Fryeburg's wilderness's "beauty liveth still,"[11] it has had a human footprint for the past 11,000 years[12] – if not longer if one consults the Abenaki.[13] It is the human history of the region to which I now turn.

The Pequawket, a tribe of the Abenaki, lived in present-day Fryeburg for more than 10,000 years, surviving by eating small and large game, fishing, and growing numerous crops.[14] The Pequawket took advantage of their proximity to the Saco River, hunting large quantities of marine life and engaging in agriculture where the land was most fertile.[15] The Pequawket grew beans, legumes, squashes, pumpkins, artichokes, and tomatillo using the resources of the Saco.[16] From an evolutionary perspective, domesticated farming was both a blessing and a curse: although the Pequawket were able to sustain themselves through the winter months, disease began to spread among the tribes. The concept of "territory" also became significant: contact

9 Thoreau, *The Illustrated Maine Woods*, 80.
10 Michael P. Chaney, *White Pine on the Saco River : An Oral History of River Driving in Southern Maine* (Orono, ME: Maine Folklife Center, 1993), 13.
11 King, *The White Hills*, 241.
12 Johnson, *This Grand & Magnificent Place*, 263.
13 Frederick Matthew Wiseman, *The Voice of the Dawn: An Autohistory of the Abenaki Nation* (Hanover, NH: University Press of New England, 2001).
14 Ibid., 56.
15 John Stuart Barrows, *Fryeburg, Maine: An Historical Sketch*. (Fryeburg, Oxford, Maine: Pequawket Press, 1938), 5.
16 Wiseman, *The Voice of the Dawn*, 69.

with other tribes became a question less of mutually exchangeable goods, and more one of whose land and resources were being used for production. The commodification of the landscape and the idea of ownership would continue to be themes in the history of water use in Fryeburg through the 20th century.

The Europeans first had contact with the Wabanaki, which refers to those inhabiting the geographic region to which the Abenaki belonged, in the mid-17th century. The Pequawket who lived in Fryeburg were never a large tribe. Darby Field reported 200 inhabitants of the Saco River Valley when he traveled there in 1642 in exploration of the White Mountains. Between the leave of these early European explorers and when white settlers arrived in 1762, the Pequawket traveled north along the St. Lawrence River Valley. A hatred of Indians on the part of whites had been growing, because natives had raided encampments of white settlers in New Hampshire. On April 16th, 1725, Captain John Lovewell, having been personally affected by an attack (one that was actually stimulated by a white missionary figure who was working among an Indian tribe) began a march to meet the Pequawket in what would become known as the Battle at the Pond.[17] Politically, exile of the Indians to the north was the only viable option in order for Europeans to "peacefully" inhabit the land that they claimed as their own.[18] According to an article published in the *Portland Augus* on the centennial of the Battle of the Pond, "although expelled from these plains, where civilization has erected her standard" is hoped for that "in happier climes [may the Pequawket] experience the fostering hands of the American Republic."[19] American hands would prove to be fostering indeed.

In 1761, Colonel Joseph Frye returned to the region, and after noticing the economic potential of the land, asked the Governor of Massachusetts Bay for a grant of land that was confirmed in February, 1763. Colonel Frye gave 50 land grants to interested settlers, and four

17 Barrows, *Fryeburg, Maine*, 7-9, 13-14, 17-19.
18 Wiseman, *The Voice of the Dawn*, 115.
19 Barrows, *Fryeburg, Maine*, 25.

years later the political boundaries of the Town of Fryeburg would be official. As the years went on, and as Europeans continued to populate Fryeburg, along with their domesticated farm animals, some Indians began to return. Conflict between whites and Indians remained minimal, until 1781, when European settlers found out that natives from Canada had attacked a group of white families in neighboring New Hampshire. Fryeburg residents were stationed at three forts in the surrounding areas in an attempt to stave off Indian attacks.

Early settlers lived traditional, family-centric lifestyles. Soon, lean-to camps were replaced by log houses, which, with the advent of the sawmill, were replaced by frame houses. During the winter men worked in the forests, and during the rest of they year they tended to farmland. Women engaged in housework, childcare, elementary education, and religious schooling. Town leaders purchased a meeting space, which one individual deeded to Fryeburg, to attend to public needs. In accordance with the original land grant, the town appointed a Protestant minister, who preached in a church that was built on land included in the deed for the public space.[20]

By the 19th century, the economic landscape in Fryeburg, Maine had changed. It was no longer an isolated town. Trade routes were created along the St. Lawrence River, and eventually branched off to Fryeburg. On weekends a bustling marketplace, called "The Whirlpool," attracted merchants and traders from New York and Canada.[21] There was a post office, grocery store, general store, and a shoe store. In the 19th century, the market attracted farmers and hunters who presented, traded, and sold produce, meat, and animal skins.

Businesses began to change after the Civil War. General stores changed ownership. One man started an insurance business. Perhaps the most important change in the economic landscape came with the extension of the railroad to the White Mountains in 1873.[22] When the

20 Ibid., 90-91.
21 Ibid., 171.
22 Ibid., 178.

first train passengers arrived in Fryeburg, a full brass band and military company greeted them, in honor of a new economic landscape that would allow Fryeburg to flourish.

Like other rural New England towns, Fryeburg became involved in the production and distribution of potash, which was made from the burning of wood to clear the land for agriculture. Potash was used to make lye, a substance used to cure foods. Currying leather was another business venture, used to produce shoes, saddles, and harnesses. Soon, business diversified: a tobacco shop, hatter, watch repair shop, fertilizer producer, cheese store, hogshead (sugar made from molasses) distributor, and funeral home populated the town throughout the 19th century.[23] Residents lived comfortable lives. A telegraph office was established in Fryeburg for the first time in the late 1880s. Fryeburg could remain connected with the world around it. Business was prosperous.[24]

The Fryeburg Water Company was organized on May 20, 1882, and water was turned on in the main streets on November 10 of the same year.[25] The creation of the water system is significant, and marks a new social milestone for the lifestyles of Fryeburg residents. Within fifty years all dwellings were equipped with private plumbing systems that originated in the springs of the White Mountains. I will discuss the creation and consequences of the water company in Part III.

In August of 1906, however, a fire destroyed nearly half of the businesses in Fryeburg. Many were rebuilt in the ensuing decades, but much of the original part of "The Whirlpool" was gone. Some of the fire's architectural victims were rebuilt into private residences and inns. Restaurants and taverns became more popular. A village bank opened in 1907, and a few local newspapers were printed in the 1910s.[26]

23 Ibid., 172-179.
24 Ibid., 179.
25 Ibid., 180.
26 Ibid., 184.

Although a small-scale furniture shop had existed in Fryeburg since the late 1870s, major sawmills operated between 1793 and 1937.[27] What was produced depended on what was still available. Gristmills, timbering, and the production of private dwellings relied on the power of the Saco River. Fryeburg's proximity to a strong water source was again important.

In order for wealthy tourists and athletes to take advantage of the beauty of the White Hills, Fryeburg residents built a ski slope that opened in 1937. Skiers enjoyed "Fryeburg's delightful coasts among the hills" and view "the beautiful peaks of the White Mountains."[28] After all, what could be a more natural way to enjoy the wilderness than skiing on a mountainside previously occupied by birch trees and shrubbery, which had enjoyed the rainfall of the White Hills?

Water Use in Fryeburg: 1850-2000

The human history of Fryeburg, Maine begins and ends at the use of water. Indians and Europeans alike inhabited the area in and around Fryeburg largely because of what they saw in the land – fertileness, diversity of species, proximity to a large water source, substantial rainfall near Mount Washington. In Fryeburg, despite increased use of water resources to support profiteers – the advent of forest clearing, gristmills, and running water – little of the environment is said to have changed over time. In this section I outline water use in Fryeburg over time. We will see that the particular location that Fryeburg occupies has resulted in a biopolitical history of water use and consumption over the past 150 years. Later, I will argue that biopolitics, the fusion of the scientific with the political, is deeply ingrained into the academic and local understanding of water use, and that this is a direct cause of, as well as a danger to, water resources available in Fryeburg, Maine.

27 Ibid., 186.
28 Ibid., 187.

When European settlers arrived in Fryeburg in the mid-17th century, they began to clear forests in order to create space for agricultural production. In the mid-18th century dwelling structure began to change, and demand for timber increased. Two major environmental changes occurred during this period: 1) Loggers began to produce timber and transport it along the Saco River; and 2) Agriculturalists burned down entire forests in order to clear the land for growing crops. I will take each of these in turn.

As dwelling structures began to change, and frame houses replaced old log cabins, the need for local timber companies and gristmills that used the power of the Saco River to operate increased. These economic incentives resulted in deforestation that affected much of the White Mountains, but documented changes are relatively non-specific. It is clear that large areas of forestry were brought down, but parsing out the ecological effects on the wildlife in the region is nearly impossible. One 18th-century tourist from New York observed that deer had mysteriously become much less common.[29] The extent to which this observation is causally related to deforestation is questionable.

The agricultural opportunities along the Saco River are vast. Farmers capitalized on the proximity to the Saco, enjoying fertile soil. Similar to logging that occurred in the mountains, it is unclear the extent to which taking advantage of fertile soils along the river resulted in environment consequences.[30] Although it can be said that plant and animal species probably bore the added burden of dryer soil conditions, changes in the population sizes of shoreline species are speculations at best. The idea that clear conclusions cannot be drawn will be a recurring theme as Fryeburg continues to tap into the water resources available through the 19th and 20th centuries.

The Fryeburg Water Company, which was organized on May 20, 1882, raised $12,000 of capital and provided the infrastructure for indoor plumbing by November 10 of the same year.

29 King, *The White Hills*, 210.
30 Chaney, *White Pine on the Saco River*, 82.

Originally, wells had been built on the property of most residences in order to provide for everyday needs.[31] Laying pipes and mains that originated from water sources in the White Mountains provided new opportunities for the growing businesses, including taverns and restaurants, in Fryeburg. Two sites were chosen in the White Hills for the original piping; neither site had any property claim to them. The sources, White Lot and White Lot Brooke, were on the side of Green Mountain and fed into the Saco River.[32] The brook was sizeable and began about three hundred feet above sea level. The first need of the Fryeburg Water Company was to build a dam across the brook. Early on, stakeholders had decided that gravity would be the only power source pumping water to town and into houses. A pipe was laid across the Saco River on August 10, 1882. Mains and service pipes were completed in early November, providing running water to faucets in residential houses. In all, the water originating in the White Hills traveled for more than 4 miles before reaching Fryeburg dwellings.

The desire for running water stemmed from two areas: availability of the resource and a developing economy. Although the Fryeburg Water Company created a relatively advanced water system compared to other local towns, it can be said that its location was largely responsible for its ability to use natural resources to establish plumbing systems. Inhabitants of Fryeburg had been capitalizing off of their proximity to the Saco River for thousands of years – land was more fertile, gristmills could use waterpower for grinding wood, and transportation of materials was easier. Thus, developing an advanced plumbing system was only a matter of time. The system was enhanced and updated following a large fire that affected much of the town in 1909. By 1950 the entire town had running water.[33]

31 Barrows, *Fryeburg, Maine*, 104.
32 Ibid., 106.
33 Elizabeth Royte, *Bottlemania: How Water Went on Sale and Why We Bought It* (New York: Bloomsbury USA, 2008):, 70.

Although I have described the use of natural water sources, which illustrates one direct interaction between Fryeburg residents and their environment, there is little evidence that these developments have had much impact on the environment per se. Since the early 20th century, there has been little documented change in the environment.[34] It is clear that landscapes have changed. Burning down forests and building ski mountains will have that effect. However, few changes in speciation or population sizes have been documented. Environmental effects – negative or positive – have not been recorded. In fact, Fryeburg, and the White Hills more generally, is still the same "grand and magnificent place" that it was in the 18th and 19th centuries.[35]

The theme that resonates most powerfully as Fryeburg's economy developed through the 19th and 20th centuries is the central role of water. The space that Fryeburg occupies deeply influenced the ways in which human agents interacted with the environment. Specifically, the town's proximity to water resources (the Saco River and various streams and brooks in the White Hills, in addition to the rainfall associated with Mount Washington) allowed agriculture, gristmills, timbering, and indoor plumbing to be possible. In Fryeburg, though, we have seen that water use is deeply politicized. Originally, the government empowered Joseph Frye to provide land grants to prospective farmers.[36] These deeds were treasured, used as governmental proof that the fertile land of the Saco belonged to European settlers, and not Indians. The construction of the railroad to Fryeburg, which increased the rate of business development, was a publicly funded project. Licenses for gristmill operations were granted by the local municipality. Finally, the Fryeburg Water Company was a public company. The politicization of water use in Fryeburg would continue into the 20th and 21st centuries, when large corporations began taking advantages of water resources. As we will see, the formation of a biopolitical municipality holds

34 Johnson, *This Grand & Magnificent Place*, Ch. 11.
35 Ibid., 263.
36 "Fryeburg History and Information," Fryeburg, Maine, 2012.

consequences for the ways in which environmental changes – mostly negative ones – are "proved."

Space, Water, and Biopolitics: The Legalized Uncertainty of Bottled Water

Fryeburg's unique location has resulted in a biopolitics – that is, the fusion of the scientific and the political[37] – that has made possible the use of its water resources: first by Europeans who found its proximity to water attractive, later by publicly-funded plumbing companies, and finally by multinational bottled water corporations. Bottled water has been called, by some, the greatest "marketing coup" of the 20th century.[38] In Fryeburg, though, the alleged deceitfulness of companies such as Poland Spring has resulted in harsh political realities that are deeply informed – and yet rarely challenged – by the biological. As in the past, the municipal government in Fryeburg relies on science to inform environmental policy.[39] However, when the objective nature of science is replaced by the subjective, as occurred when water was commodified, bottled, marked up, and sold worldwide, political failure inevitably results.

In 1955 the Wards Brooke Aquifer, which has a storage capacity of about eight billion gallons, provided water to more than 800 customers in Fryeburg and to 70 others across state lines in East Conway, New Hampshire.[40] Today it provides water to millions worldwide. At the time, though, the Fryeburg Water Company was responsible for the distribution of water from the Wards Brooke Aquifer, and it continued to expand its distribution network over the next forty years. In 1997 the president of the Fryeburg Water Company decided it was necessary to drill a second well to serve the "fast-growing town."[41] The purpose of this well, however, was not only to serve the 3,000 residents of Fryeburg and another few thousand that live in southwest Maine

37 Didier Fassin, *When Bodies Remember: Experiences and Politics of AIDS in South Africa* (Berkeley: University of California Press, 2007), Ch. 2; Adriana Petryna, *Life Exposed: Biological Citizens after Chernobyl* (Princeton: Princeton University Press, 2002), 1-33.
38 Hamo Forsyth, "Bottled Water has Become Liquid Gold,". *BBC Business*, November 22 2010.
39 Jyoti Thottam, Paige Bowers, Stefanie Friedhoff, and Sean Scully, "War on the Water Front," *Time,* December 19, 2005, 60.
40 Royte, *Bottlemania*, 12-13.
41 Ibid, 62.

and eastern New Hampshire. Rather, water was to be pumped and transported to a bottling plant in Hollis, Maine, where it would be prepared to be sold to millions of people around the world. In fact, by 2006 the Fryeburg Water Company was pumping about 800,000 gallons of water each day, and sold that water to a company called Pure Mountain Springs.[42]

In most United States municipalities, water that is pumped from municipally-licensed sources cannot be sold for more than the price paid by town residents.[43] Thus, Pure Mountain Springs acts as the middleman between Fryeburg Water Company and Poland Spring (which is owned by Nestle). Fryeburg Water Company sells water at municipally competitive prices, and then Pure Mountain Springs resells the water to Nestle at markup.[44] Interestingly, the president of the Fryeburg Water Company has a son who is the co-owner of Pure Mountain Springs.

After purchasing water from Pure Mountain Springs, Poland Spring transports the water to Hollis, Maine for bottling and distribution. The company has built a trucking plant in Fryeburg near the Wards Brooke Aquifer for easy transport.[45] In other words, the sale of water resources occurs in a highly concentrated space over a short period of time. In this physical space, numerous legal battles have ensued as interest groups in Fryeburg are often at arms with Poland Spring. The town's rich water resources have allowed Fryeburg to prosper; but they have also caused deep, political strife that highlights the challenges of environmental politics.[46]

In numerous legal battles, Nestle, representing its subsidiary, Poland Spring, has argued that studies show no proof of environmental harm.[47] Their hydrogeological models demonstrate that current pumping rates will not cause damage to the environment, even though some

42 Ibid., 12.
43 Economic Research Service, "Water Use and Pricing,". United States Department of Agriculture (1995), 69.
44 Royte, *Bottlemania*, 12-13.
45 "Plant Openings & Expansions" *Food Engineering* 81, no. 6, (June, 2009) 13.
46 Jeff Cioletti, "Nestle Waters Defends Poland Spring's Purity," *Beverage World* 122, no. 8 (August 15, 2003): 9; Thottam, Jyoti, Paige Bowers, Stefanie Friedhoff, and Sean Scully, "War on the Water Front," 60.
47 Barbara Rabinovitz, "High Drama Case Set in Suffolk Superior Court with Maine's Poland Spring Water Co. as Defendant,". *Massachusetts Lawyers Weekly.*

Fryeburg residents are convinced otherwise.[48] The fact is that local courts' reliance on science has made it extremely challenging to prove Poland Spring's practices result in environmental harm. This is exacerbated by Nestle's mastery of the legal system: Nestle sued the town of Fryeburg when the town's board refused to allow the company to build a trucking plant in town. The plant was approved by the planning board, but the Western Maine Residents for Rural Living convinced the Fryeburg board of appeals to overturn the original decision. Nestle would eventually win the case.[49] The company's is able to navigate the legal system, provide jobs to Maine residents, and use money to support lengthy municipal battles. It is therefore privileged over local, Fryeburg residents. In some ways, Fryeburg is part of a "global water-justice movement," one in which local interests are inherently conflicting; on the one hand, bottled water companies provide jobs and benefits to rural New Englanders.[50] On the other hand, local and national interest groups argue that bottled water poses grave threats to the natural environment in Fryeburg. In an effort to support the "water-justice movement," these groups provide two related moral arguments against bottling water in Fryeburg and elsewhere. They rely on these moral imperatives in the courtroom where scientific models fail.

The first moral argument says that environmental degradation is a result of pumping water in unnatural quantities, and therefore it is "wrong." To that ends, Nestle hires numerous hydrogeologists that study the sources of Poland Spring's water, mostly aquifers in the northeast, Midwest, and southeast of the country, to produce scientific reports and testify in court. Testimony always includes the fact that hydrogeological models are completely probabilistic and conceptual, and concludes that even if they represented environmental realities, courts should rule in favor of the optimization of resources over non-use of them. Due to the nature of the

48 Dorothy H Tepper, Daniel J. Morrissey, Carole D. Johnson, and Thomas J. Maloney, *Hydrogeology, Water Quality and Effects of Increased Municipal Pumpage of the Saco River Valley Glacial Aquifer: Bartlett, New Hampshire to Fryeburg, Maine*, U.S. Geological Survey (August 1990), 44-48.
49 Royte, *Bottlemania*, 13.
50 Ibid., 15-16.

science, "no hydrogeologist can say with absolute certainty what this magnitude of extraction will mean for the environment years or even decades into the future."[51] Because the burden of proof lies on the interest groups that oppose the actions of Poland Spring, and not the other way around, inconclusiveness prohibits legal systems from ruling for environmental interests. Our expectation is for scientific conclusions to predict and inform political realities; in the eyes of environmental interest groups, the political failure is also a moral one.

The second moral argument is that the commodification of water in bottled form is inherently "wrong." First, if Americans drank water out of the tap instead of purchasing bottles, we would spend 100,000 times less than we do.[52] Second, bottled water, which requires tons of plastic and produces carbon emissions while in transit, poses environmental threats.[53] Finally, this argument states that the economic interests of a multinational organization should not trump the interests of local residents, simply because Nestle can manipulate the legal system more ably. In other words, Nestle takes advantage of Fryeburg residents' lack of legal expertise to serve their own economic interests.

Little environmental change has been documented in Fryeburg because of the intricacies of its legal system. The legal and the environmental combine to create an environmental politics that relies on the conclusive nature of a science – hydrogeology – that is inherently inconclusive. Legalized reliance on hydrogeological inquiry has meant that the very idea of "truth" moves from the empirical to the philosophical, from "this is" to "we know this to be not." In other words, because of the way the legal system is set up, "truth" is redefined to mean "not necessarily false." In the case of water, it is not necessarily the case that Poland Spring's

51 Ibid., 67.
52 Education Database Online, "The Facts About Bottled Water," (2012).
53 Catherine Ferrier, "Bottled Water: Understanding a Social Phenomenon," *World Wildlife Foundation* (April 2001), 21.

pumping causes environmental harm. Therefore, courts cannot recognize environmental change, according to some residents, as legitimate.

On the one hand, the academic and local analysis of water over time has resulted in the use of rich resources available in Fryeburg. On the other hand, this understanding has been so highly politicized through municipal legal battles and within academic research, that the use of water resources is inevitably perpetuated by the very scientific standards that are used to objectively "optimize" its use. This objectivity, I argue, is impossible in the biopolitical climate of Fryeburg, Maine. Although we have observed the use and commodification of water resources over time, the use of water resources continues due to the ways in which legal systems rely on science. When the objectivity of science is assumed and also compromised, as in the case of Fryeburg, political failure results. Water-justice caters to the powerful few, those equipped to do the compromising, those responsible for creating the biopolitical climate in Fryeburg in the first place.

The physical space that Fryeburg occupies has resulted in an economic, political, and legal drama surrounding the use of the environment. I have argued that the unique space that Fryeburg occupies has resulted in a fusion of the scientific and the political. This reflects the economic imperatives that drew Europeans, and later multinational corporations, to Fryeburg in the first place. The fusion of the political, the social, and the scientific in Fryeburg over time has created economic prosperity and legal conflict around the use of its vast water resources. Due to the nature of Fryeburg's biopolitical municipality, what this has meant for the environment will forever remain in question.

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