

## Atavism, Elementalism, and the Water / Culture Wars: Competing Solutions for Water Scarcity in Vandana Shiva and Jack London

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### Abstract

*As the world's fresh water supply grows increasingly threatened and access to that supply is mediated more and more by private organizations, multiple attempts have been made to establish permanent trade links between water-rich and water-poor regions, though these attempts have thus far been defeated by environmental, economic, or nationalistic factors. Corporate control of water, as a basic element of human life, holds menacing consequences in terms of humanitarianism and ecological stability. This intent of this article is to investigate several recent corporate successes in the arena of bulk water export from various locations in Alaska, beginning with Eklutna Lake outside of Anchorage and proceeding to current trade contracts in Sitka and future contracts on Adak Island. Alaska holds, by some estimates, 40% of the United States', and 20% of the world's, water supply, and it is thus far the only governed entity that has successfully sold water in bulk. Following Vandana Shiva's advocacy of a "culture" of water in *Water Wars* (2002), this article suggests that the criteria enabling the recent, troubling boom in Alaskan water sales may be cultural as well as practical or economic. A close reading of Jack London's "A Relic of the Pliocene" (1901) concludes that London, like Shiva, endorses a culture of unmediated contact and elemental interdependence between man and nature. However, while Shiva's elementalism leads to a new culture of respect and reverence for water resources, London's elementalism acts as a shield and justification for exploitation of natural resources, an attitude that speaks strongly to Alaska's interest in privatizing its water supply.*

On September 28, 1922, Frank I. Reed, a businessman from Anchorage, Alaska, posted the following notice next to the Eklutna River, roughly thirty miles northeast of the city center:

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Know all men by these presents, that I, the undersigned, do hereby claim five hundred cubic feet per second of the water flowing in this stream, known as the Eklutna River, for the purpose of generating electric energy to be used for light and power (Hollinger 16).

Reed's humble signage could not have predicted the *Amethyst River*. On August 29, 1994, this Japan-bound cargo tanker departed from the harbor at Anchorage. In addition to its ordinary cargo—10 million gallons of Naptha, a petroleum byproduct used to make plastics—the ship took on approximately 1.7 million gallons of Eklutna drinking water from a dockside fire hydrant. Total profit for the city, which at the time charged \$3.14 for 1000 gallons of water, was at most just over \$5,000. Don Dietz, port director, saw the export as a curiosity: “to make the trip here just for the water wouldn't pay,” he commented. The event wasn't even a hiccup in the yearly budget for a large city, not even a tremendously significant change of plans for the *Amethyst River*, which stored the water in its ballast tanks to conserve cargo space and avoid port taxes.<sup>1</sup> The event was much more significant in concept; the 1994 export marked what Brian Crewdson, assistant to the general manager of the Anchorage Water and Wastewater Utility, claimed was the first bulk water export in the United States. Crewdson also remarked that, following the August 29 sale, he received calls from New York, Washington, D.C., and South Carolina, all of them interested in getting a taste of Anchorage water (Swagel). In Anchorage alone there is a daily water surplus of up to 30 million gallons (three tankers the size of the *Amethyst River*) per day, representing a possible profit of \$10 million per year for the city (Swagel).

Several bottled water companies have realized that Eklutna water—Anchorage tap water, essentially—can be marketed as “glacial water” on the open market. The rhetoric surrounding Eklutna water, circulated by companies such as Alaska Glacial Refreshments, capitalizes on precisely what makes the lake aesthetically valuable—its purity, its timelessness. “We have the purity mystique, and there's the pristine nature associated with Alaska and its glaciers that is a powerful marketing tool,” says Etan Tokayer, a spokesman for Alaska Icecap.<sup>2</sup> Gil Serrano, a spokesman for Alaska Glacial Beverages, capitalizes on the same niche. “It means something,” he says, “to know that you are drinking water that has not been touched by human hands in 23,000 years. When Adam and Eve were looking for a cool refresher, they probably tasted the same thing you and I taste when sipping GlacierCap.™”<sup>3</sup> The company buys about 24,000 gallons of Eklutna water from the public utility in Anchorage a week and sends it via empty milk tankers to an A & W plant in Everett, WA for bottling. During 1994, the same year of the *Amethyst River* transport, Alaska Glacial Beverages, which employs only a handful of workers and has its home base in a converted trailer home off of the Eklutna Lake road, projected revenues on the order of \$42 million after signing a deal with the government of Saudi Arabia to transport nearly 60 million gallons of Eklutna water per year to the Middle East.

The case of Eklutna is remarkable not simply because it was perhaps the first transport of its kind, but because it represents a casual, seemingly effortless success in a commercial field that has been fraught with obstacles on both the supply and demand ends. In early 1990, the provincial government of British Columbia invited contract bids for the export of a small percentage of its surplus fresh water (on the order of 137 trillion gallons a year, by some estimates). There were thirsty regions with deep pockets within easy shipping distance, they reasoned, and the surplus as things stood simply poured into the Pacific, where it was of no use to anyone.<sup>4</sup> A perfect business model—or so it seemed at the time. After months of negotiations, in 1991 Sun Belt Water Incorporated, a company based in the southwest U.S.,

made a successful bid to transport Canadian water to drought-plagued sections of California, Arizona, and Nevada—successful, that is, until the British Columbian government killed the deal less than a week later. Sun Belt organized a lawsuit, first in the Canadian courts and later through NAFTA, the proceedings of which continue to this day.

The great unknown in this equation is the motivation of the Canadian government in terminating what appeared to be a done deal. Christopher Scott Maravilla, in an article on the Canadian bulk water moratorium, attributes the breaking of the Sun Belt agreement to “strong environmentalist and nationalist opposition in Canada to the United States, or other countries for that matter, buying Canadian water in mass” (Maravilla 29). Whether the nationalist sentiment is specifically anti-American or generally pro-Canadian is a matter of some speculation, though Maravilla seems to favor the latter, citing the opinion of Bill Blaikie, a Canadian Parliament member from Manitoba, that “water is as Canadian as hockey, as the Mounties, as the beaver” (29). Maravilla also cites a Canadian consumer watchdog organization that gathered 25,000 signatures opposing bulk water export.

What the case of the Sun Belt contract demonstrates, apart from its relevance to international trade law, is that water, similarly to oil, has a strong cultural component that compounds its value as a commodity. When considering such current issues as water privatization, export, and inevitable shortage, it is essential to consider not only whether the sale of a given water resource is economically feasible, but what the cross-cultural ramifications of international (and, in many cases, even intercontinental) sale would be. This article aims to examine recent successes of several Alaskan water conglomerates in shipping fresh water overseas in contrast to the difficulties experienced by Sun Belt and others. I conclude that the attitudes cultivated by state and regional policies, as well as broader American narratives surrounding Alaska and its resources (extending, though by no means limited, to the works of Jack London), maximize profit at the peril of political and environmental stability.

The specter of water privatization and shortage has haunted popular environmentalism for some time, though even today the literature remains primarily anticipatory, noting current problems but forecasting far more severe effects.<sup>5</sup> Maud Barlow, in “Blue Gold: The Global Water Crisis and the Commodification of the World’s Water Supply,” notes that, if current trends persist, by 2025 the demand for fresh water is expected to rise to 56 percent above the amount that is currently available. Given that water is even more essential to human life than such comparative luxuries as oil, the impending water shortage, some believe, stands to provoke even more severe global conflict. Barlow cites the 1995 assertion of Ismail Serageldin, Vice President of World Bank, that: “if the wars of this century were fought over oil, the wars of the next century will be fought over water,” and adds that “the water crisis of the planet today” could lead to “the collapse of whole societies and ecosystems” (12).

It must be said, however, that Barlow’s “water crisis” is less a fear that there is not enough water to go around (though this will surely become an issue in time), but that an utterly essential element is being privatized—placed in the care of a few wealthy conglomerates who place a low premium on the lives of those unable to pay. James Ridgeway, in *It’s All for Sale: The Control of Global Resources*, states that the world market for water has been estimated at “anywhere from \$300 to \$800 billion annually,” and notes that somewhere between 300 to 500 million people already derive their private water supplies from corporate sources (6).<sup>6</sup> Given the

lucrative existing market for water and the indispensability of the resource itself, the potential for disaster seems high. "One of the earth's most vital resources," Barlow writes,

is being determined by those who profit from its overuse and abuse. A handful of transnational corporations, backed by the World Bank, are aggressively taking over the management of public water services in developing countries, dramatically raising the price of water to the local residents and profiting from the Third World's desperate search for solutions to the water crisis. The corporate agenda is clear: water should be treated like any other tradable good, with its use determined by market principles (3)

*Blue Gold*, first published in 1999 and revised in 2001, has become an almanac of sorts for water activists; it remains widely cited and has given rise to a documentary of the same name in which Barlow appears. Its function, however, is primarily diagnostic, outlining the extent of the water shortage issue and making several dire predictions of possible outcomes should the evidence be ignored.

Vandana Shiva's *Water Wars* (2002), on the other hand, has become the most emblematic volume on the water crisis in part because it suggests a solution to the issues of scarcity, privatization, and pollution that pervade water rhetoric. In order to promote sustainable life, Shiva states, we must enact "a recovery of the sacred and a recovery of the commons" in regards to water, since the supply and safety of the element "cannot be ensured through market logic alone" (138). Shiva provides a wealth of examples from her home country of India, addressing the issue from the perspective of local farmers, global tidal change, colonization, and religious life, to name only a few. The "wars" of Shiva's title, of course, reinvolve Serageldin's oft-quoted statement concerning the wars of the next century, but her volume essentially argues the existence of a different, cultural conflict, between "a culture that sees water as sacred... and another that sees water as a commodity." She writes:

The culture of commodification is at war with diverse cultures of sharing, of receiving and giving water as a free gift. The nonsustainable, nonrenewable, and polluting plastic culture is at war with civilizations based on soil and mud and the cultures of renewal and rejuvenation (x).

Shiva draws heavily on Hindu mythology and doctrine that marks water (especially, but by no means restricted to, the Ganges and other sacred rivers) as holy and thus necessarily preserved. She ultimately aims to guide the conflict over water away from the idea of the marketplace and "into a world charged with myths and stories, beliefs and devotion, culture and celebration. These are the worlds that enable us to save and share water, and convert scarcity into abundance" (139).

From a certain perspective, Shiva's position can be seen as a mere drop in a very large and very leaky bucket, given the poor track record of appeals to the conscience of corporations. Encouraging the largest conglomerates to adopt such basic practices as living wages, worker benefits, equitable hiring, and environmental and health standards has required tidal shifts on the part of legislators and the consumer base, and, even so, none of the above problems can be reasonably said to have been solved.<sup>7</sup> To put the matter somewhat more cynically: a company that stands to gain millions, even billions, shipping a low-cost, high-profit commodity on a

contract extending into perpetuity is unlikely to abandon this scheme because a small handful of academics insist that the commodity be regarded as “sacred.” From a perhaps kinder standpoint, however, Shiva could be said to be attempting to “readjust” the (human, political, cultural) cost of the commodity itself. She addresses the notion of value directly in *Water Wars*, claiming that “commodification of water reduces its value only to its commercial value,” and offers the counterpoint that “resources can often have very high value while having no price” (137-138). By making a case for water as a valuable, though not marketable, resource, Shiva hopes to encourage a more reasonable attitude toward water usage and preservation.

Coupled with the argument for the sanctification of water as a cultural resource, *Water Wars* fosters a deep-seated suspicion for modern means of extracting, distributing, and using water. This suspicion runs so deeply, in fact, that it might be called atavistic, though a better term might be elementalistic: the notion that human society works best when its access to the basic units of natural life (soil, water, sun, etc.) is unmediated by technology. This perspective can be glimpsed in her reference to “civilizations based on soil and mud” that I have previously cited, but appears most prominently in her introduction, “Converting Abundance into Scarcity,” the premise of which is that, paradoxically, more “primitive” means of collecting water in India were able to accomplish more irrigation and sustain a larger population than more modern devices such as tube wells and petroleum-fueled pumps. Most of her ire is reserved for the Green Revolution of the mid-twentieth century, designed to battle looming famines in India through the introduction of mechanized farming and high-yield crops. Shiva claims:

Prior to the Green Revolution, groundwater was accessed through protective, indigenous irrigation technologies. However, these technologies, which relied on renewable human or animal energy, were identified as ‘inefficient’ and were subsequently replaced by oil engines and electric pumps that extracted water faster than nature’s cycles could replenish the groundwater (10).

In *Water Wars*, indigenous systems of farming, irrigation, and water extraction are always ideal—productive, sustainable, green—while modern techniques are damaging, inefficient, and wasteful. This principle furthers Shiva’s contentions concerning the two warring factions—the worshippers and the commodifiers—throughout the volume, as well as, implicitly, the very old conflict between the modern, industrialized, capitalist West and the simple, holy, agrarian East. What Shiva’s elementalistic argument eventually boils down to is that an unmediated culture of water—including an acknowledgment of its sacred properties—leads to sustainability, while a culture mediated by technology, capitalism, and environmental depletion exacts a heavy toll in human lives and standard of living.

Shiva’s conclusions, though they are by nature counterintuitive, are supported by many less politically-inflected works. A 1996 symposium on water conservation and population dynamics sponsored by the American Association for the Advancement of Science (AAAS) concluded, in part, that:

Engineering approaches to water resource development, such as dams, diversions, and pipelines, often come at great cost to the environment, and may not necessarily produce the expected economic returns or social benefits. Managing demand, pricing water to reflect its full cost, and using water-saving technologies and environmentally sensitive engineering may yield better results

than simply increasing water supply... in India, heavily subsidized electricity for water pumps owned by affluent land owners has contributed to depletion of the local aquifer (16).

A growing population can best be served not by forcibly boosting water production at the cost of local environments, but promoting many of the methods that Shiva advocates: wise water usage and conservation, preservation of environmental integrity, and harmonization with regional means of water extraction. Sandra Postel, in *Last Oasis* (1992) reaches a similar conclusion. Decrying the mentality of "modern society" that "has come to view water only as a resource that is there for the taking," she suggests that the problem of scarcity can only be solved by "harmonizing human needs with those of a healthy environment" (19). Postel's solutions include thriftier irrigation, more efficient wastewater processing, and local conservation efforts.

In all of the above studies, engineering, or rather overengineering, is one of the primary contributors to scarcity. Postel sees the desire to control and commodify water as emblematic of "the hope that, by controlling an ever greater portion of nature's water cycle, humanity could be freed from the constraints posed by rainfall's unequal distribution in place and time" (39). Such an urge to convenience, however, results in alterations of the environment that reduce, rather than promote, water production and distribution: "depleting underground aquifers, deforesting watersheds, and diminishing streamflows to economically damaging levels" (22). Even Maggie Black and Rupert Talbot's recent *Water: A Matter of Life and Health* (2005), detailing the progress of UNICEF's 1970 efforts to drill wells in water-poor areas of India using 125 electric drills, though uniformly supportive of the program, is forced to admit that "Indian villages still face severe drinking water problems," and "in an ironic twist of fate, the take-off in hard-rock drilling which UNICEF helped foster is leading, as we all know, to serious groundwater depletion" (xvi).<sup>8</sup> Though UNICEF's wells did indeed help to alleviate the problem of access to fresh, clean water in many Indian villages, they also impoverished the aquifer from which those wells drew, resulting in rapidly diminishing returns across the entire area. In a perhaps unintentionally humorous moment, the authors note succinctly that "the triumphant success of well-drilling in India is now helping to shape a potential catastrophe" (9).

Some, though not all, of the above arguments are accompanied by elemental appeals to water's status as an essential unit of human (and other) life, its inviolable, uncommodifiable properties, and its access and consumption as fundamental rights. Turning water into a saleable commodity with a market price is wrong on moral, practical, or humanitarian grounds.<sup>9</sup> These were some of the first arguments, in fact, to be leveled against public systems of water distribution, and still appear on occasion in statements from water consumers today.<sup>10</sup> Jean-Pierre Goubert's *The Conquest of Water: The Advent of Health in the Industrial Age* (1989) claims that, toward the end of the eighteenth century, "water, which was originally completely free of charge, became an industrial and commercial product, and sometimes even a profitable investment" (10). Prior to this sea-change, Goubert claims, water possessed elemental sway, though its status was distinct from its character as a revered, sacred entity as detailed by Shiva. Rather, "water was a dominant force, imbued with powers, virtually immanent and generally feared. It was a symbol of severance and transition, particularly toward the beyond" (21). Pre-industrial means of obtaining water, too, were stigmatized: "At the end of the eighteenth century water carriers were considered to be 'vile men and raucous women who upset the inhabitants of the districts'" (22).

Even in pre-industrial times, water was always a commodity of sorts, delivered for those with the luxury to pay and by those without. Mechanized water delivery originally gained a foothold simply by undercutting the rates charged by the water carriers. Even so, Goubert notes, “water continued for a long time to be considered as an essentially free gift from heaven,” requiring “a whole programme of social and health education... to persuade the working and even the middle classes that there were good reasons for using and thus paying for an abundant supply of clean water” (23). Though Goubert believes that “water is like health: it does not have a price,” he in fact means that water is not a typical commodity: “the price of water is determined in a way that is contingent upon prevailing economic circumstances... in accordance with location and need” (180). The European “culture” of water (Goubert focuses chiefly on France), the same culture to which Shiva opposes the organic, “soil and mud” culture of *Water Wars*, is one that has undergone painstaking and elaborate processes to obtain its current system of attaching value to the element. These processes, and the lingering nationalistic, symbolic, and humanistic values that industrialized nations attach to their water supply, constitute the opposing forces against which Shiva fulminates. The forces of technology and the free market, Shiva claims, unilaterally “destroy the earth and aggravate inequality” (15).

It should be clear, however, that the issue is not simply one of modernized versus premodern countries; rather, there are cultural elements at work within water-exporting nations that enable or forbid the commodification of water. Put another way, if cultural factors in fact led to Canada’s moratorium on bulk water export (as Maravilla argues in his analysis of the Sun Belt sale), what similar factors enable Alaska to achieve successes on the same market? Certainly the saleable resources themselves are comparable. In Alaska, by some accounts, the state contains about 40% of the water resources of the United States and 20% of the world’s supply. The only factor preventing Alaskan water from becoming a source of profit seems to be the current imbalance between demand and transportation costs—a gap that has caused some, including Postel in *Lost Oasis*, to declare that water from remote locations such as Alaska, extracted using complex engineering solutions, cannot compete with local sources.<sup>11</sup> Postel speculates: “The day when farmers and other beneficiaries could profitably pay for the expensive water these projects would deliver is a long way off, and may never arrive” (43).

Nonetheless, the state has begun to stage its first few successful bulk water sales in the recent past, following in the traces of Eklutna. On July 11, 2010, the website Circle of Blue reported that the city of Sitka, Alaska, had signed a deal brokered by the Texas-based company S2C Global Systems to ship up to 2.9 billion gallons of Alaskan water via tanker to India every year.<sup>12</sup> At a price of one cent a gallon, the city stands to make over \$26 million a year. Circle of Blue speculates that this constitutes the first-ever large-volume export of water using tankers, noting that multiple past attempts have failed owing to “daunting logistics, concerns about natural resource sovereignty and commodification as well as the availability of cheaper local sources.” The Sitka agreement was closed only three days after Circle of Blue reported several new applications from a Native corporation to export water from Adak Island in the Aleutian island chain.<sup>13</sup> Alaska, rather than Canada, may soon become the nexus of the worldwide water market, despite its intrinsically high shipping and operations costs, remoteness, and the everpresent difficulties posed by the terrain and climate.

When considering why Alaska has succeeded in bulk water export where others have failed, it may help to provide a brief account of similarly large public works projects in the state. Alaska has something of a reputation for immense, costly projects constructed on tax revenues—

witness not only the recent highly publicized “bridge to nowhere” in southeast Alaska and the equally well-known yet less controversial Canadian natural gas pipeline, but also, perhaps most strikingly, the titanic and doomed Rampart project of 1963, which Claus Naske and William Hunt note would have created the largest dam in the world, a 10,000 square mile reservoir (larger than Lake Erie) and could have drawn an average of 5 million kilowatts of electricity from the Yukon River every year, 2.5 times as much current as the Grand Coulee Dam (Naske & Hunt).<sup>14</sup> Or consider the ill-fated Project Chariot of 1959, which proposed, quite simply, the use of an atomic bomb to blast out an ice-free harbor near the remote village of Point Hope, near the northwest extreme of the state.

More to the point, however, Alaskan politicians and business owners are aware that the state’s tremendous surplus of fresh water constitutes a valuable commodity, and are eager to market it to anyone willing to pay. Former state governor Wally Hickel earned attention—much of which came in the form of derision—for suggesting a 1700-mile, \$150 billion water pipeline from Alaska to California. Ric Davidge of Alaska Water Exports Incorporated imagined a fleet of tugboats towing giant reinforced nylon bladders filled with water to the Pacific Northwest—Davidge’s own extensive and elaborate attempts to market Alaskan water have earned him the unofficial title “Alaska’s water czar.”<sup>15</sup> Alaska Mountaintop, an Anchorage-based business, markets not only Attakiska vodka, a liquor that attempts to combat foreign dominance of the vodka market by emphasizing its use of glacial water, but Glacier Fresh shampoo and products such as mousse, hair gel, and cologne, all made (and marketed) with that same water (Nemeth, Freedman, Scagliotti). The list goes on. In 1990, the state granted 16 licenses for the harvest of icebergs from Prince William Sound and Kenai Fjords National Park.<sup>16</sup> The ice was being exported to Japan for use in holiday ice sculptures and novelty ice cubes. Mark Wilson of WetCo in Anchorage sold about 300 metric tons of ice to Japan that year, charging between \$50 and \$75 for ten pounds of cubes “packed, bagged, and shipped” (Kizzia). The unique charm of glacial ice cubes apparently derives from the fact that ultracompressed glacier ice tends to trap tiny air bubbles within it that crack and pop as the ice melts.

As the above instances seem to indicate, Alaska today—as it has been since well before statehood, since at least the Klondike Gold Rush, is a site where tremendous capitalist ingenuity abuts a huge quantity of remote and elusive resources. This has historically been a very dangerous combination, resulting in not only some of the aforementioned far-fetched schemes, but increasingly hazardous and environmentally damaging techniques developed to harvest and export the commodities. Combined with this entrepreneurial spirit is a deep and long-standing narrative of elementalism that pervades American thought vis-à-vis Alaska; the state is repeatedly represented as a place where people go to “get back to” a raw ideal of nature, a place that provides the opportunity for self-sufficiency and individual survival if one is strong or cunning enough. This narrative appears in media as diverse as that surrounding Sarah Palin’s vice-presidential bid, Werner Herzog’s 2005 *Grizzly Man*, Jon Krakauer’s 1996 *Into the Wild* and accompanying 2007 feature film, the poetry of John Haines, John McPhee’s 1976 *Coming Into the Country*, and even T.C. Boyle’s satirical *Drop City* (2003). There are many other examples, but I will investigate only one in depth here: Jack London’s 1901 short story “A Relic of the Pliocene,” first published in *The Faith of Men and Other Stories* (1904). Even more than the above examples, even more, in fact, than much of London’s more widely-read work, “A Relic of the Pliocene” epitomizes the elementalism inherent in popular ideas of Alaskan culture, and speaks strongly to the manner in which natural resources such as water are subsequently valued.



"A Relic of the Pliocene" is among the tallest of London's tall tales. The unnamed narrator is implied to be a hunter or trapper, the setting "a thousand miles beyond the outermost post of civilization," somewhere near the Arctic Circle. Into his camp wanders "this Nimrod, this mighty hunter, this homely, blue-eyed, freckle-faced Thomas Stevens," who regales him with stories and "borrows" the better part of his tobacco (5, 1). The bulk of the story is told from Stevens' perspective, who, after noting the narrator's disbelieving reaction to the fabric of his unusual boots ("in that it was all of half an inch thick, it reminded me of walrus hide; but there the resemblance ceased, for no walrus ever bore so marvelous a growth of hair"), tells of the hide's origin: a woolly mammoth, last of its kind, killed, he claims, "with my own right arm" (12-13). The remainder of the story is comprised of Stevens' elaborate recollection of the mammoth hunt (the process takes weeks, and chiefly involves forced starvation and a hatchet), which is a typically Londonesque man-against-the-elements adventure.

The hunt is motivated by revenge. Stevens claims at the outset that he has produced a new breed of sled dog destined to become "the mother of a new race," before she and her pups are abruptly and thoroughly flattened by a mammoth misstep. Stevens melodramatically recounts the incident: "a rampaging, ranting, old bull mammoth, like a second flood, wiping them, root and branch, off the face of the earth! Do you wonder that the blood-soaked earth cried out to high God? Or that I grabbed the hand axe and took the trail?" (16). The subtext of the hunt, as with much of London's other fiction, is an atavistic struggle against physically superior yet evolutionarily inferior foes; Stevens sets the narrative hook with: "listen, and you shall hear of a hunt such as might have happened in the youth of the world when caveman rounded up the kill with hand axe of stone" (19). Conveniently, the mammoth shatters Stevens' rifle when it stampedes through his camp; he is forced to confront it using minimal tools, the implication being that a man of Stevens' cunning and determination requires no advanced technologies to assert his evolutionary superiority.

"A Relic of the Pliocene" both helps to establish and extends an existing tradition of elemental, atavistic portraits of the North; in this sense, it falls in line with much of London's other fiction, *White Fang*, *The Call of the Wild*, and "To Build a Fire" being perhaps the most visible examples. What separates this short story from its more widely-cited cousins is its extreme epistemological uncertainty, its repeated refusal to submit to scientific verification or explanation. Admittedly, the story is framed as a tall tale, one that needs not be confirmed or proven by logical means. The narrator promises not to either criticize Stevens' story or pass judgment upon it for a simple reason: "judgment I have none. Long have I pondered, weighed, and balanced, but never have my conclusions been twice the same" (4). Moreover, setting aside the shortcomings of the narrator himself, it would seem that the story actively discourages the notion of fact; fact is, to put it simply, irrelevant: "if he has told truths, well and good; if untruths, still well and good. For who can prove? Or disprove? I eliminate myself from the proposition" (4). Couple this fictional play with the luminous, quasi-supernatural setting of the story, and whatever germ of truth lies at the core of Stevens' story becomes as ephemeral as the mammoth itself. "There is a magic in the northland night that steals in on one like fevers from malarial marshes," the narrator claims, "you are clutched and downed before you are aware" (7). In fact, upon first sighting Stevens, the narrator is convinced that he must be a hallucination or some tundra-dwelling specter; only after observing how much of his tobacco the "specter" has appropriated does Stevens' tangibility become clear. On some level, therefore, "A Relic of the Pliocene" is aware of its fantastical nature, and suffers under no imperative (or desire) to prove its veracity to the reader.

If “A Relic of the Pliocene” is simply a tall tale, however, and is completely invested in its own fictions, the quantity of the tale that is devoted to determining and confirming the truth-value of Stevens’ narrative seems out of balance with the “adventure” portion of the story. Roughly half of the work is invested in a discourse on the impossibility of obtaining truth of any kind through scientific inquiry. The atavism found throughout “A Relic of the Pliocene” is thus paired with the notion that man not only functions independently of scientific knowledge, but is in fact necessarily opposed to it. The narrator puckishly invites doubters of the story to come to find Thomas Stevens themselves and confirm his words. Where might Stevens be found?

The directions are simple: anywhere between 53 north latitude and the Pole, on the one hand; and, on the other, the likeliest hunting grounds that lie between the east coast of Siberia and the farthestmost Labrador. That he is there, somewhere, within that clearly defined territory, I pledge the word of an honorable man whose expectations entail straight speaking and right living (4).<sup>17</sup>

The offer of confirmation is an affirmation of the impossibility of verification itself; it does not foreclose on the possibility of discovering the (admittedly fictional) Stevens, yet provides an area (roughly the entire northern half of the continent) that swallows the impulse in its immensities. Unable to seek out Stevens for ourselves (where would we start?), we have only his word—statements filtered through the consciousness of the narrator—to rely upon.

It is this word, this fantastic authority, that defeats the narrator in the mock-debate that follows Stevens’ arrival in the narrator’s camp. Disbelieving (perhaps understandably) Stevens’ story about the mammoth hunt, the narrator deploys a variety of arguments, many of them borrowing heavily from scientific debates of the time. He first cites precedent: “we know [the mammoth] once existed by the fossil remains we have unearthed, and by a frozen carcass the Siberian sun saw fit to melt out from the bosom of a glacier; but we also know that no living specimen exists. Our explorers—” to which Stevens responds, bluntly, “your explorers? Pish! A weakly breed. Let us hear no more of them” (11). The narrator adopts the first person plural deliberately, bringing into play the notion that he (and Stevens) are the passive recipients of an existing factual archive. Stevens denies this notion; all that is valid, he suggests, are the contents of his own memory—the explorers are not “ours,” but “yours.” Significantly, Stevens fails to provide any counterargument beyond the “weakly” character of the explorers in question, suggesting that he argues not by logic, but some other system of valuation. Similarly, in response to the narrator’s comment about fossilized mammoth bones, he states: “I remember when I was a kid... I saw a petrified watermelon. Hence, though mistaken persons sometimes delude themselves into thinking they are really growing or eating them, there are no such things as extant watermelons.” The link with contemporary evolutionary debates (how can species exist in both the fossil record and as living specimens?) can scarcely be missed, but perhaps more valuable here is the notion that *real* experience, here, the experience of eating a watermelon, trumps any academic findings. The narrator remarks to himself that this latest argument is “puerile and without bearing” (12).

Finally, the narrator cites the absence of sufficient food to sustain a mammoth in the Arctic. “The soil must bring forth vegetable life in lavish abundance to support so monstrous creatures,” he notes. “Nowhere in the North is the soil so prolific. Ergo, the mammoth cannot exist” (12). Stevens, in typical form, neglects to answer this contention as well. Instead, he simply states: “I pardon your ignorance concerning many matters of this Northland, for you are

a young man and have traveled little... the mammoth no longer exists. How do I know? I killed the last one with my own right arm" (12). The story closes with the revelation that the narrator has bequeathed the mammothskin mukluks, gifted to him by Stevens, to the Smithsonian in his turn. He invites doubters to visit the famous museum and, "if they bring the requisite credentials and do not come during vacation time," seek out a Professor Dolvidson, who will verify "not the manner in which [the boots] were obtained, but the material of which they are composed." The narrator leaves the reader with an unusual challenge: "When he states that they are made from the skin of the mammoth, the scientific world accepts his verdict. What more would you have?" (25). The final injunction throws the story into uncertainty again by exposing the reader's privileging of the opinion of experts over his or her own.

Like Edward Bellamy, whose "Parable of the Water Tank" (the preamble to *Equality*, 1897) predicted a future in which ambitious capitalists slowly established a stranglehold on a community's water supply, London leaned strongly toward socialism. Suspicious of private industry and capitalist enterprise, his stories and essays tended to champion individual efforts to adapt to and derive sustenance from nature without the mediation of the free market (his strongest pejoratives are generally reserved for those who attempt to wring profit out of an elemental lifestyle, as in "A Hyperborean Brew"). However, the anticapitalist subsistence lifestyle celebrated in most of his stories, including "A Relic of the Pliocene," is enabled only by the vastness of the terrain that his characters inhabit. For London, the wilderness is immense, cruel, and ultimately unknowable. Its inhabitants are never permitted to forget the difficulty of forging an existence there. In "A Relic of the Pliocene," in fact, the "realities" of a harsh, wild life, as related by Thomas Stevens, trump any factual, logical, or scientific assays on the part of the story's narrator.

Herein lies the cultural conflict over water to which I have alluded over the course of this essay. Shiva's *Water Wars* and other environmental appeals to water conservation and valuation imagine themselves as involved in an elaborate ecosystem, of which water constitutes a vital part, drawing upon thousands of years of religious and social tradition. Endowed with humanistic, nationalistic, environmental, and even religious significance, water becomes the lifeblood for a vibrant, growing population. Shiva's elementalism leads to a variety of quasi-mysticism in which "myths and stories, beliefs and devotion, culture and celebration" become the agents of "convert[ing] scarcity into abundance" (139). In Alaskan culture, however, water, like other resources, is not an integral, inviolable part of an existing system, but a superfluous byproduct of that system that can potentially be exploited. In this sense, the elementalism championed by London and others works, though concluding, like Shiva, that scientific, logical solutions are inadequate, in fact runs counter to Shiva's intent; the environment becomes *too* wild, *too* immense, for any human enterprise to adversely effect.

There are many potential reasons why a very similar elementalism should produce very different results in Alaska as compared to Shiva's India. Alaska's imbalance between the population and the area available to support that population (the entire state population is less than that of Columbus, OH), the hostility of the climate, and the longstanding belief, not invented by London but surely fostered by his work, that resources are free to harvest and exploit by anyone strong and clever enough to do so, results in a formula for widespread and permanent environmental degradation. Though rivers are no longer claimed in the same manner as Frank Reed claimed the waters of the Eklutna, the mentality is still very much alive. The potential hazard offered by this mentality is cloaked within an elemental consciousness

ingrained in London's works and their literary heirs, augmented by a longstanding and intrinsic frontier sociability (the state's motto is "The Last Frontier") that continually endeavors to remain one step in advance of the encroaching borders of civilization.

There are likely other, more tangible reasons for the successes of Alaskan industry in bulk water sales. Every Alaska resident meeting certain criteria receives a Permanent Fund Dividend check from the state government every year. The amount of the check varies widely, though it is usually between 1 and 2 thousand dollars. This money derives from the Permanent Fund, a nest egg placed aside by the Alaska legislature to hold surplus oil revenues.<sup>18</sup> Everyone in the state knows that this money comes from oil, though despite the resource's troubled history, the arrival of the checks in October every year constitutes an unofficial state holiday. Permanent Fund money does much to smooth the relationship between the Alaskan public and industries centered around extractive resources. Today, potentially damaging industrial sites such as the highly controversial Bristol Bay pebble mine enjoy strong support in the Alaskan legislature.<sup>19</sup> Environmental activism in Alaska has won battles in the past (the Arctic National Wildlife Refuge debate being the perennial hot-button), but considering the amount of resources contained within the state, the increasing financial feasibility (fueled by scarcity) of extracting those resources from remote locations, and an industry-friendly public and legislature, civic protest remains a difficult proposition.

The facts of the matter are these: the institution of bulk water transport holds massive potential for abuse, both environmental and humanitarian, in the future. The transport is being enabled by a culture that views attempts—virtually any attempts—to market natural resources in a remote and hostile environment as universally beneficial. This is a global problem without a global solution—existing ideas seem to be of limited utility. Shiva's proposition of instituting an elemental culture of the sacral, noncommercial aspects of water runs counter to long-standing Western narratives of clean, fresh water as a valuable resource. While her suggestion of a return to atavistic means of water production may very well encourage a radical shift in attitudes toward the resource, it would be extremely difficult to implement these efforts in regions with centralized or urban populations. More to the point, Shiva's narratives of adequate water supply and distribution in India rely on examples that predate what we think of as the current age of water scarcity. In the penultimate chapter of *Water Wars*, she links latter-day droughts in India with water-harvesting techniques first implemented by British colonizers, contrasting these methods with traditional, sustainable practices. But the population of India today is over 1.2 billion, approximately 600% of colonization-era levels.<sup>20</sup> Shiva claims: "Man-made water scarcity and ubiquitous water conflicts can be minimized with the recognition of water as a common resource... the most effective alternative to water monopolies is water democracy" (127). However, even if politics and greed represent a distinct obstacle to equitable water distribution, the issue will eventually come around (if it has not already) to the fact that resources are limited, and an exponentially increasing population cannot survive on a uniform supply of a vital resource into perpetuity.<sup>21</sup>

It may be, however, that there is a way to square retention of the cultural value of water with entrenched capitalist systems of water harvesting and sale, particularly in regards to the issue of Alaskan water. Coupled with the atavism and elementalism inherent in Londonesque conceptions of the far North is an equally powerful narrative of state and regional pride. As the examples of Eklutna water marketing show, customers—and residents—are never permitted to forget that they are consuming *Alaskan* products. This investment in the local, this sense of

resources being more valuable specifically because they are native resources, is not to be undervalued; certainly it was a factor in the Sun Belt fiasco. Granted, this variety of “product pride” is a far cry from Shiva’s conceptions of water as a sacred element, but given the force exerted by commodity-fetishism, consumer activism, and sustainable shopping in today’s marketplace, it may be a feasible step toward larger solutions.

The framework for this course of action is already in place; in fact, it is established by the very capitalist structure that makes the sale of water possible to begin with. Mohammed Hijazi, a San Francisco exporter working to broker a deal to transport Eklutna water (in the same 14.7 million-gallon increments that the *Amethyst River* carried) to Saudi Arabia, explained why he is interested in *Alaskan* water in particular: “It’s known as a clean and virgin land... no nuclear testing, no big factories there. No carbon monoxide and fuel-related pollution. It’s a huge country with very little industrialization. That keeps everything pure” (Scagliotti). If the same concepts of Alaskan elemental purity cultivated by both the free market and years of popular narratives can be parlayed into a more widespread revaluation of the resource on the order of what Shiva attempts in *Water Wars*, the result may be a more sustainable management plan for the future. On this subject, Ric Davidge, Alaska’s water czar, is very likely correct: “a lot of Alaskans don’t understand the myth of Alaska and its glaciers and its water... if you package it right and you sell it right, it’s very, very powerful.”

## Endnotes

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<sup>1</sup> The profit from the *Amethyst River* export, however, was sufficient (barely) to cover the cost of then-mayor of Anchorage Tom Fink’s dispatching of his Special Projects Coordinator, John Cowdery, to South Korea and Taiwan on a water-marketing trip a year earlier. “Water, in many places in the world, may have more value than oil,” Fink said. “They’ve got money and they need water.” It costs about a third of a cent for the city of Anchorage to produce a gallon of consumer-ready water. This same water would sell for about \$3 in Taipei (Rinehart).

<sup>2</sup> <http://watergenius.com/articledetail.asp?articleid=105>

<sup>3</sup> <http://www.alaskaglacier.com/>

<sup>4</sup> This is, of course, an erroneous assumption; fresh water that enters the ocean maintains current salinity levels in estuaries and brackish-water environments, essential for numberless species.

<sup>5</sup> Barlow’s volume still serves as an excellent introduction to water shortage as a global problem. Paul Simon’s 1998 *Tapped Out: The Coming World Crisis in Water and What We Can Do About It* is an introduction from a much more U.S.-centric position. Since the global water shortage is often classified as an impending, rather than existing, problem, public knowledge oftentimes passes it by in favor of more high-profile disasters.

<sup>6</sup> Vandana Shiva is more liberal in her calculations, putting the global water market at \$1 trillion annually (Shiva 88).

<sup>7</sup> This is not to say that Shiva’s strategy has never been successful in the United States. In the Arctic National Wildlife Refuge (ANWR) and other U.S. nature preserves, environmental, recreational, and cultural resources have thus far managed to trump the economic value of the resources contained therein.

<sup>8</sup> Black and Talbot’s volume is thus in the uneasy position of both supporting and decrying the same project. They attempt to mitigate the detrimental effects of the project by capitalizing on UNICEF’s other successes, claiming that the water scheme caused UNICEF to be “seen, for the first time, as a serious development partner at the highest levels of central and state government. It opened the

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door to UNICEF's substantive participation in many other key social programmes, such as early child development, mass immunization, and guinea worm eradication" (xv).

- <sup>9</sup> The AAAS study notes: "Water is often 'captured' by powerful economic interests, to the detriment of poor people" (15).
- <sup>10</sup> See Alicia Herbert & Elaine Kempson, *Water Debt & Disconnection*, 1995. Herbert & Kempson survey the roughly 9% of British water consumers who defaulted on their water bills in 1994. Statements from the customers often include objections to paying for water on practical or moral grounds. For example: "Water's free. God didn't give you a price... it's disgraceful, charging people just to use water. I don't mind it costing a certain amount to keep the water clean... but it seems to be going up and up" (28). One customer presented a case strikingly similar to Shiva's: "I don't see the use of paying for something like water... water is essential for everyone. It's a basic necessity" (29)
- <sup>11</sup> Postel cites a statement from the U.S. Congressional Office of Technology Assessment in response to a plan to transport water from Alaska to California via an undersea pipeline: "it does not appear that pipeline water [from Alaska] will ever be able to compete with the more easily implemented supply-enhancing and demand-reducing options now being planned" (43-44).
- <sup>12</sup> <http://www.circleofblue.org/waternews/2010/world/north-america/alaska-city-set-to-ship-water-to-india-u-s-company-announces/>
- <sup>13</sup> <http://www.circleofblue.org/waternews/2010/world/north-america/alaska-receives-new-applications-for-bulk-water-removal/>
- <sup>14</sup> A large percentage of similar projects, I must here note, are the brainchildren of Senator Ted Stevens, whose 1997-2005 position as chair of the Senate Appropriations Committee assured that the state received as much money as it requires for public works projects of all varieties, from the prosaic to the nigh-bewildering.
- <sup>15</sup> The bladder export system is already used to ship water regularly from Turkey to Israel.
- <sup>16</sup> Both of these areas are prime tourist destinations. In response to the claim that tourists on a wilderness cruise might not appreciate the sight of an industrial barge carting away the bergs, Al Schafer of Afognak Logging in Seward, one of the recipients of an ice harvesting permit, declared, "If you're out there harvesting ice, that's more damned interesting than a seal is" (Kizzia).
- <sup>17</sup> The 53<sup>rd</sup> parallel passes through Attu Island, AK, as well as Lake Winnipeg, MB. Thus, "between 53 north latitude and the Pole" indicates roughly the northern half of Canada and all of Alaska.
- <sup>18</sup> Today, the Permanent Fund checks are primarily drawn not from the actual oil money itself, but the interest accrued from a year of investing Permanent Fund money. Thus, the amount of the check depends less on the price (or supply) of Alaskan oil than on the success or failure of the stock market.
- <sup>19</sup> For more information on the proposed mine, which is being largely funded by Anglo American Inc., see <http://www.pebblepartnership.com/>, <http://www.savebristolbay.org/>, and <http://www.bristolbayalliance.com/>. Much of the debate over the mine, significantly, is centered around the quantity of wastewater produced by open-pit mining and its subsequent effects on river and sea life.
- <sup>20</sup> See Angus Maddison, *The World Economy: A Millennial Perspective*, 2001. Maddison estimates the mid-19<sup>th</sup> century population of India at slightly over 200,000.
- <sup>21</sup> It may be that the traditional methods of water harvesting endorsed by Shiva are, in fact, more effective than the mechanized groundwater wells constructed by entities such as UNICEF. But Shiva confuses cause and effect; rainwater retention systems such as the Indian *johad* collect more water and provide for more effective rationing than directly tapping the aquifer.

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