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Economy and Ecology:
Together Forever – Nature's Death by Finance

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Water, over the past 150 years (approximately), has been transformed into a commodity that is quickly slipping through our fingers. Though the domination of water in the United States began with the political power of economic imperialism and expansion, corporate domination of ecology (and water specifically) has now become commonplace. Now in many countries around the world water is controlled and, more importantly, sold by multinational corporations. This succession of events have led to two major global issues: in the United States and other western powers, a major concern is the overuse of water by individuals and businesses alike, whereas in much of the underdeveloped world, a major concern is the inability to find water that is safe to drink and use. These two problems originate from the same attitude towards water, attached to capitalism and profit, and greatly affect people worldwide.

However, water did not always have an economic context to it, as art and literature throughout history shows that water used to be represented as a powerful force that had to be respected and cooperated with rather than dominated. Even in Western cultures (now most strongly associated with the commodification of water) for a long time, water – mostly as the ocean – had been seen as an entity that, if not properly interacted with, could be one's downfall. In Robert Louis Stevenson's classic novel *Treasure Island*, for instance, the voyage taken by the narrator and others is one that must be planned for intricately, otherwise the sailors would be doomed. At other points, the sea is described as almost having a will of its own and acting in opposition to the voyagers. To this end, Stevenson creates a perception of the water that is simultaneously fearful yet respectful, which seems to be one particularly useful way to relate to water (at least, for the characters in this novel). Respect and coexistence continued to be one way to understand water, crossing cultural and temporal boundaries, seen in Patricia Grace's 1986 novel, *Potiki*. However, this story introduces a new element to the way water is treated, that is, financially. The novel is a narrative of a small indigenous (Maori) community in New Zealand, who live near the ocean and live in harmony with the environment there. As a tale of modernity, of course, it then features a western capitalist who comes into the community looking to take advantage of the natural beauty and make an obscene amount of money in the process. Unfortunately, this particular treatment of water has its roots further back in history, demonstrated in this case by James Thomson's poem (written in the early half of the 1700's) "Rule, Britannia!" This poem is an early example of the link of the natural world to man's economic and imperialistic dominance. The refrain of the poem, "Rule, Britannia, rule the waves" is then an early example of the human desire to exert that dominance over the natural world. As it turns out, this would not be the last example. And now, our ability to control the water has contributed to a very real problem concerning water supply and demand throughout the world.

In order to understand our current predicament in the context of the global water crisis – to use a sensationalist yet not wholly inappropriate term – we must search for the beginning of our overuse of water. Unsurprisingly, the growth of industry was a large factor, though growing

population also necessitated ways to transport water to those who were not near it, which led to new developments in extracting water for the growing society. This occurred simultaneously with United States westward expansion in the mid 19th century and as America approached the 20th, water more or less became a political and economic entity, turned into a resource for human use and disrespected with little-to-no regard for the future of water's existence. An example of this early 20th century attitude towards water is seen in Mary Austin's 1917 novel *The Ford*. In the text, Austin gives the description of "a little river, but swift and full," then goes on to associate it only with man-made, rather than natural, elements. Ford presents the addition of various structures to the river as "beginning with the best intentions of turning mills or whirring dynamos," and details the utility of the river as having "the happiest possibilities of watering fields and nursing orchards" (Austin 34). Ford's sarcasm in the attachment of "best intentions" and "happiest possibilities" to the use of the water as a resource should not be underestimated, as she reveals that those intentions and possibilities lead to the physical degradation of the river, leaving it to be "like all wasted things, a mere pest of mud and malaria" (34). This portion of Austin's novel illustrates the short-sightedness of treating water only as something that can be useful to society, much as the Hayao Miyazaki film *Spirited Away* does. Depicting water as more than just a resource for human use is one of the greatest strengths of the film. The various ways in which water is represented, whether as an excessively dirty spirit, as a young boy or as a flying apparition, are designed to make the viewer consider multiple perceptions and possible interactions with water. The consequences of treating water as something to be conquered are portrayed in the film, ranging from the irreparable – the destruction in the paving over of the river – to the hopeful, in the scene of Chihiro cleaning the filthy water spirit perhaps implying that it is not too late to make an attempt to reverse the damage we have done thus far. The origins of this domination of nature in modern society is explained, albeit in a less fantastic manner than *Spirited Away*, by Jamie Linton.

Linton's article, "The Social Nature of Natural Resources – the Case of Water," gives a brief history of water in the United States – starting in the late 19th century – in the context of defining it as an economized resource. Linton writes that "this 'quantitative view of water' provides a way of knowing and representing [...] that literally *makes* water available for exploitation," a view that is achieved through scientific measurements and creating a perception of water as "an abstraction that is perfectly, and quite *naturally*, suited for human use" (Linton 4). The quantification of water then also recognizes that there is a somehow limited supply of it, and Linton argues that since "water is capable of scarcity, it must be conserved, used wisely, and never wasted" (Linton 4). However, it is interesting to note that Linton quotes a paper from 1909 written by W.J. McGee throughout Linton's article, and that McGee had great foresight in his observations that "in [water's] assumed plentitude the idea of quantity has seldom arisen..." and McGee argues that water is in need of conserving (4). Now, one hundred years later, we (specifically, as the U.S.) are ever-so-slowly coming to the realization that water is indeed quite scarce, though this realization is yet to produce a change in our water usage. This is caused by the mental separation between ourselves and the sources of the water, a separation encouraged by water's status as an economic product.

Linton goes on to explain the process of the domination of water during this era in the early 20th century, through "state sponsored projects" which have "gone a long way toward realizing McGee's ambition of 'conquest' of the nation's water by bringing it under 'total control'" (9). By achieving (or relentlessly pursuing) this "conquest," water has been defined through simultaneously political and economical contexts. With governmental control of water resources

through the previously mentioned "state sponsored projects," as well as the monetary value that has been attached to water – consider the amount of bottled water one can find and purchase, as well as the simple fact that the water in our houses is paid for and controlled by companies – the contemporary perception of water has subverted that which is proposed by Linton (by way of McGee) as noticeably scarce because we see water – the resource – as a product, a definition which implies artificiality. The idea of a resource as "a social construction" (6), is also brought up by Linton, which must then be managed in such a way to produce an "efficient outcome," such as production of electricity, again establishing water as being entangled with and directly influenced or controlled by politics and money in public perception. Our trust in the power of the government and of money to effectively produce water, an egregiously incorrect perception of the origin of water, has overshadowed the very real scarcity of water; since water is legislated and purchased, we consider this to be where our water comes from, and as such the belief is that either the government will be able to continue providing water or that we will be able to buy our way out of the problem. In some ways, as the U.S. economy collapses and the noticeably increasing distrust that the general population seems to hold of our politicians, this reliance on both of these abstract institutions is being shattered and we are realizing, perhaps too late, that the precious materials are provided by the *earth* – not these institutions – and that they need to be protected from our own over-consumption. The discrepancy between water as property and water as a fundamental need and human right is also prominent in the United States' history of American Indians and their constant under-representation in the law. Sandra Osawa demonstrates an ongoing struggle between the law and the actions taken, or perhaps more specifically the actions not taken, that contradict the law.

In Osawa's article, "The Politics of Taking Fish," she outlines a one-hundred-and-fifty year back-and-forth dispute between American Indian tribes in the Northwestern United States and the local and federal governments about salmon fisheries. The article states that "in return for the tribes ceding vast areas of their present land," that they would be entitled to "the right of taking fish at all usual and accustomed places" (Osawa 136). However, soon after settlers began arriving in the territories, they began asking the native tribes if they "could be pushed a little further off their lands" (137). Soon, the settler's interest in the land became overshadowed by their interest in the water, and the salmon found therein, and the "usual and accustomed places" for the tribes' fisheries soon became restricted by settlers' attempts to edge the tribes out and take over the areas (138). Osawa writes that "although the treaty right to fish was legally upheld and recognized as early as 1887, in practice it was disregarded" (138). Cycles of legal battles over rights to the water and to the fish between the tribes and settlers continued, with the tribes' rights being legally upheld in court, but active disobeying of those rights by settlers continued, inspiring more court cases, in turn inspiring more settler apathy, with the repetition continuing ad nauseum. The rights of the tribes were being increasingly marginalized into the 1920's at which point, as Osawa describes, "the tribes had agreed to share the fishing right with the whites and now found themselves restricted and virtually excluded from the fishery" (140).

The 20th century saw an overall increase in restrictions against the tribes' rights to fish, at different points banning use of specific areas, means of fishing, and even species of fish (144-146). Today, while tribes in the Northwestern U.S. have "a legal right to fifty percent of the harvestable salmon" (148), decades – over a century, in reality – of abuse against the resources of fish and waters have left vastly decreased numbers of salmon in the areas, such that now in our modern era of understanding and tolerance (at least, supposedly) the lack of salmon reflect a culture of consumption and marginalization of minorities. Osawa makes the statement that

although the legal right to fish has been legally upheld in court since the turn of the 20th century, "it has consistently been denied here at home" (148). This goes to show that the governmental control of water (and marginalization of indigenous people to go along with it) has helped contribute to not only the overuse of the water itself, but also the species found within it as well. These problems we face in the context of water control in the United States are very different from problems seen in other parts of the world, though they certainly extend from the same financial and political perception of water. To understand this different set of problems, it is necessary to look at the concept of the world economy and the implications that such an economy has on the globe.

The creation of the World Bank in the mid 20th century started with a relatively simple, and seemingly altruistic, goal which was (and continues to be) to create a "world free of poverty" (worldbank.org). Unfortunately, the means by which the Bank attempts to realize such a world is fraught with questionable investments and equally questionable development corporations, stemming from the arrogance situated in the very existence of the Bank and its commitment to Western economics. Beginning with just the most obvious observations about the Bank, its location in Washington D.C. is significant, as capitalism and consumerism are fundamentally linked with the United States, and as Arturo Escobar writes in his book *Encountering Development: The Making and Unmaking of the Third World*, "the United States controls about 21 percent of the voting power" of the World Bank, and that it "responds closely to the interests of international capitalism" (Escobar 165). As could be expected, along with the U.S., four other capitalist countries (Britain, Germany, Japan, and France) contribute to make up nearly half of the Bank's voting power (165).

The International Monetary Fund (IMF) is similarly based in the principles of capitalism (and is also located in Washington D.C.) and often works in conjunction with the Bank to achieve its own ends (standardizing currency exchange rates). The main problem with these financial institutions is not simply that they are tied to principles of capitalism, but is instead a problem of inflexibility. A phrase coined by economist John Williamson, the Washington Consensus (as Williamson's paper "What Washington Means by Policy Reform" describes overall, and effectively summarized by Wikipedia), refers to a set of specific economic policies which are considered the standard reform package for developing countries by the Washington D.C. based economic institutions – i.e. the World Bank, IMF and others (Williamson). This unwillingness to adjust policy and consider different countries as exactly that, different, is at the heart of the problem in the handling of development in the third world by these institutions.

Joseph Stiglitz, a former economic adviser during the Clinton presidency as well as former chief economist of the World Bank, writes of his own disillusionment with these financial institutions in his book *Globalization and its Discontents*. Stiglitz argues that one of the economic policies often implemented by the IMF and World Bank is a type of "shock therapy," in which the institutions wish to establish an effort to "privatize quickly, creating a large group of people with a vested interest in capitalism" (Stiglitz 140-141). The forcefulness of applying capitalism to developing countries has effects greater than just the simple acceptance or rejection of such an economic model. Implementing capitalism quickly in poverty-stricken countries without capitalistic ideas of a middle or upper class essentially creates two classes, one of extreme poverty (majority of population) and one of wealth (marginal amount of people).

After this creation, the privatization of resources becomes an issue of charging people, who are unable to pay, for the materials in their own country that they need to survive, as Escobar notes "[the World Bank] fosters the loss of control of resources by local people by

insisting on large projects that benefit national elites and [multinational corporations]" (Escobar 165). By enlisting large corporations to control the economic development, the World Bank and IMF ensures that these resources are subjected to the profit model, which is unsupportable in countries with extreme poverty. The World Bank lists its Projects & Operations on its website, though details are generally vague and do not dwell on the money involved nor the companies involved and their motives and method of implementation (worldbank.org/). This is unsurprising, as Escobar recognizes that "most of the loans the World Bank disbursed correspond to projects subjected to international bidding. Needless to say, most often the contracts go to multinational companies" (165) which then charge the poorest of people for the most fundamental necessities. Among these necessities is, of course, water.

The United Nations has recently declared water as a fundamental human right, in an effort to oppose the corporate control of water and denying it to those who are unable to afford it. The World Bank takes a decidedly ambiguous stance in its assessment of human rights and the importance thereof in a development context. In the World Bank's Frequently Asked Questions, there is a section about Human Rights, which in many ways describes the Bank's separation from both the nations being developed as well as the companies responsible for the development. The defensiveness in the answers to the simple question "Why are human rights important for the World Bank?" is telling, as well as the fact that the Bank more or less entirely dodges the question. In answering that question, the Bank claims that "there is a growing body of research [...] that shows the linkage between human rights and development," then goes on to explain that human rights are not universally interpreted in the same way, then once again describes the need for research in the area of human rights and development (worldbank.org/FAQ). This sort of avoidance of a clear stance or commitment to human rights is typical throughout the series of questions, and for the institution itself, it is a necessary response to continue operating as they do. They describe their own detachment from human rights by admitting that the Bank's "policies, programs and projects have never been explicitly or deliberately aimed towards the realization of human rights," though the continuation of that answer tries to claim that there is a certain amount of "promotion of human rights" but lacks clarity in exactly how that promotion takes place. Elsewhere in the FAQ, the Bank is equally vague about the projects they fund, at one point maintaining that "access to essential public services, such as [...] safe water, is critical and should be provided equitably" (worldbank.org/FAQ About Development) though unlike its descriptions of how the economic development is implemented, this explanation reveals no realization of a way that the public services are actually provided. This is because the control of these public services actually lie in the hands of multinational corporations.

Similar to Escobar's text, the film "Flow" asserts that the true controllers of precious natural resources in countries that utilize the World Bank (and other financial institutions) are transnational corporations. The film presents the problems of three nations across three separate continents who are all suffering at the hands of the privatization of water. The plight of one of those countries, India, is detailed in Mahasweta Devi's novel *Imaginary Maps*. Specifically, Devi highlights one of the central problems also located in "Flow," the choice between contaminated water that is free versus clean water that the people cannot afford. This choice ultimately boils down to having dirty water, or no water. Interestingly, one way this choice is depicted is opposition against the poor from all angles, described as "the time when both nature and the administrative authorities turn against them," noted as when the people have no choice but to turn to the dirty water (Devi 122). The film "Flow," on the other hand, points out an instance in Bolivia, and it is not difficult to imagine that it happens elsewhere, where this choice is not

completely imposed by a combination of uncooperative nature and authorities, but instead a severe lack of responsibility demonstrated by those authorities. As the film points out that a company (Suez) claimed to put a water treatment facility in a particular place, then "not only did they not do that, but they diverted raw sewage into this river that flows into Lake Titicaca" (Flow, 2 of 9). Many times, as in this instance, the problems arise almost entirely out of the corporate control of local resources. Devi also points this out, saying that the authorities have decided that "there is no drought," despite the plethora of the suffering poor, Devi notes that "in the houses of the Magistrate and the SDO water is pumped up and up in the pipes," with the implication that for those with money and power, there is indeed no drought, and everyone else is ignored (Devi 124). The corporate development does not only affect access to water though, and the strategies imposed on the local people by the corporations in charge of development strain monetary resources at the farming level. Devi briefly mentions that "the green revolution means revolutionary prices as well," (124) criticizing one of the World Bank's seemingly proudest development technique, that of sustainable growth such that the land can be used again and again – which in theory sounds great, but in a case such as this when people are struggling to survive in the present, it is practically meaningless to look too far into the future.

The question is, of course: is there a possibility of reconciliation? The question is bleak, but there are solutions that are hopeful, and despite the disparity in the problems of the developed countries and underdeveloped countries, the path to solving them is as similar (and as basic) as their origins. The perception of water needs to change, and this change needs to begin within those who have enough money and power to affect it – i.e. in the developed nations that overuse water and the multinational corporations which control water in underdeveloped nations. Luckily, this is starting to happen, as water use in the United States has been on a downward trend over the past few decades (US Geological Survey), but it is still the case that this is because we are supposed to conserve it, as a resource (the very perception that needs to be changed). Instead, if we can view water with the respect that it very much deserves, some sort of harmony could potentially be worked out. Vandana Shiva, in *Water Wars*, describes the various ways through which water became scarce in India, though her points are without borders as much as the water crisis itself. Shiva describes many instances of water being undermined by way of economic development, such as mining and forestry (Shiva 3-4) as well as the emphasis on sustainable development and the Green Revolution – similar to Devi implying the same (Shiva 9-10). So, the simple solution (though it is of course, decidedly not simple) seems to be to dissolve the connection between water and money, and if need be have governments take a firmer hand and make water a true public service rather than a market product.

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