

vaccine, but as an exposure point to the virus after which the healthy individual became ill.

Henderson recounts how the much safer, cowpox vaccine, was discovered in 1796. It was after this discovery that vaccinations became mandatory in many states and in the U.S. army. During this same time period, smallpox made its way out of Europe and Asia and into the Americas. Many Europeans had antibodies to smallpox, having contracted it and survived the disease earlier in life. By the time the cowpox vaccine was discovered, however, the Native American population had already suffered greatly from this deadly virus. Because the

virus was foreign to the Americas, no Native Americans had antibodies to the disease nor did they have any knowledge of the disease progression and treatment. Thus, by the time that the thirteen colonies rose up against England, much of the Native American population in what is now the United States had been completely decimated.

Henderson's account of the only official, successful eradication of a disease in history is a must-read for anyone interested in the world of contagious disease, of preventative medicine and of epidemics.

## Water Wars: Privatization, Pollution, and Profit

*Book by Vandana Shiva ; Reviewed by Lauren-Elizabeth Palmer*

Most Americans are acutely aware of the problems caused by the ownership, privatization, commercialization and shortage of oil. Oil has become a deciding factor in politics, war and global poverty. It seems, however, that oil may soon lose its status as most fought over natural resource and be replaced by none other than water, basic H<sub>2</sub>O. It may seem hard to imagine a world in which something so seemingly plentiful and available as water becomes a commodity in the developed world.

In Vandana Shiva's *Water Wars: Privatization, Pollution and Profit*, the reader is exposed to just such a world and then made to realize that this world is neither fictional nor futuristic, but our very own.

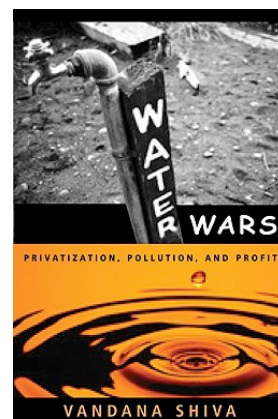
Vandana Shiva is a leading physicist and environmental leader. She has written profusely on environmental issues and, in 1993, was awarded the alternative Nobel Prize (the Right Livelihood Award). Vandana writes that "[t]he water crisis is the most pervasive, most severe, and most invisible dimension of the ecological devastation of the earth".<sup>1</sup> The book greatly benefits from the fact that Shiva is first a scientist and thus her book is brilliantly researched and explained. Shiva gives basic and easily understood explanations for the global water shortage: deforestation reduces the capacity for water storage in tree canopies and forest floors, irrigation systems for agriculture use water at an unsustainable rate, cash crops which can draw in a higher profit, but are also more water-dependent have replaced the locally bred, more suitable crops and the mining of the earth's surface is destroying underground caverns.

Shiva describes this global problem as indicative of branching value systems. The problematic value system is one which treats water as a private good which can be sold, bought, transferred and owned in a market. Shiva investigates the ways in which privatization has affected many different populations. She begins with anecdotal evidence of her travels throughout her home country of India before delving into the complex ways in which the country of Bolivia has been adversely affected. In the 1990s, water in the country of Bolivia was privatized and the cost of a monthly water bill rose to roughly

20% of the average individual's monthly income. Great public outrage and protests led to a reversal of the decision to privatize the nation's water supply. Bolivia benefited in a way many remote communities have not in that Bolivians had the ability to effectively organize and dissent in a way many populations are not able or allowed to effectively do.

Shiva beautifully and clearly describes different people of the world view water. Some view it as the natural resource which it surely is, as belonging to the people. Others see it as a market good which must be quickly possessed for the most profit. She describes how villagers in India have successfully returned to traditional ways of managing communal water sources. She concludes by investigating the nature of the Ganges River, traditionally one of the holiest sites in India. The sacred, religious or even mythical status of water in people all over the world. She suggests that this view of water, as sacred, has led to successful communities for generations.

Shiva delves into the ways in which ethnic wars across the world are truly water wars, even suggesting that much conflict regarding the West Bank rests in part on scarcity of water resources. Shiva describes the ways in which global food scarcity and water waste, thus global water scarcity, are inextricably linked problems. For anyone interested in the roots of water scarcity, this surprisingly short book is an excellent primer on this overwhelming topic.



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### Reviewed Book Information

*Smallpox- the Death of a Disease*, D.A. Henderson, Prometheus Books,

*Water Wars: Privatization, Pollution, and Profit*, Vandana Shiva, South End Press.