

March 2005

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Faculty of Arts Summer Session Research Scholarship 2004/05 Report

The availability of water is critical to sustaining life on earth. Increasingly, the right of all life-forms to access this vital resource is being threatened by human-related activities including pollution and other forms of environmental degradation, resulting in equity issues such as access to clean water as a consequence of economic globalization and the commodification of water.

Together with other global environmental issues such as climate change and land degradation, the issue of water resource management is gaining prominence at both a national and international level. As a research topic, the politics of water management in the Australian context offers a wide range of topical issues, which continue to generate vigorous popular and academic debate.

As a platform for my honours thesis and to fulfill the requirements of the Summer Session Research Scholarship, I have started to research the area of water management over the summer break. In order to orientate my research, I began by focusing on the international context of water resource issues, both from an historical and contemporary perspective. Following on from this broad picture, I then narrowed the focus down to examine the current state of play in Australia and the background to these issues, with particular emphasis on regional water issues.

My aim is to select a current water resource management issue in Australia as a case study, and to devise a research question that critically examines arguments generated by

the debate. This critique will draw on theories that work to challenge and destabilize the underlying dominant paradigms of economic rationalism and corporate hegemony. In order to develop an appropriate theoretical framework to support the research, I have also begun to explore various critical theories such as ecofeminism and deep ecology, and concepts such as globalization, power, ideology and hegemony.

As a starting point in my search for relevant theoretical viewpoints, Rachel Carson's epic book *Silent Spring* (1962) which was instrumental in launching the environmental movement, provides a strong argument in support of the protection of biological diversity. Through her examination of the use of chemicals such as DDT and the impacts of these chemicals on our air, land and water, Carson argues convincingly for the need to ensure the ecological integrity of the environment, with the enduring significance of this argument evident today. By illustrating the interconnected nature of all living things, Carson's challenge to the prevailing scientific rationale of humans as dominant and superior to nature can be effectively applied to the water context.

Following on from this, texts which critically explored further the ideology of industrial capitalism and the ethic of the domination of nature inherent in Western thought including Merchant's *Radical Ecology* (1992) provided a comprehensive overview of relevant contemporary critical theory such as deep ecology, green politics and ecofeminism. Through an examination of the major philosophical, ethical, scientific, and economic causes of the current global ecological crisis, Merchant describes how radical ecologists can work to transform science and society in order to sustain life on the planet by continuing to challenge the dominant worldview. The analysis offers an alternative vision based on a global ecological revolution brought about by changes in production, reproduction, and consciousness that lead to ecological sustainability.

Similarly, Ariel Salleh in her essay '*Nature, Woman, Labor, Capital: Living the deepest contradiction*' (1994) describes the twin oppressions of the domination of nature and women in Western capitalist patriarchal society, by focusing on the gendered division of

labour and the perspectives women bring to bear on the expansion of capitalism. Salleh describes how women's reproductive power locates them within "nature" in a capitalist-patriarchal tradition resulting in women being defined as a "natural resource" in this context.

Other useful theoretical analyses include Plumwood's *Feminism and the Mastery of Nature* (1993) and *Environmental Culture - The Ecological Crisis of Reason* (2002), where the author offers a thorough critique of orthodox philosophy regarding human relationships with nature. Similar to Merchant (1992), Plumwood advocates a new ecological-rational society to replace the current capitalist, anthropocentric value system.

The work of prominent environmental thinker and activist Vandana Shiva provided valuable direction for my research through her various publications including the founding ecofeminist text *Staying Alive - Women, Ecology and Development* (1988), together with the collection of essays compiled by Shiva and Mies *Ecofeminism* (1993). Both texts present an ecofeminist critique of science, economic development, and globalisation. In *Staying Alive* (1988), Shiva describes the exploitative nature of science, technology and politics, with particular focus on the marginalization of Indian women in relation to issues associated with access to quality water.

This analysis of science and society in relation to communal water rights is continued in *Water Wars: Privatization, Pollution and Profit* (2002) where Shiva argues that economic globalization is contributing to the growing inequalities between the developed and developing worlds. Through a detailed examination of international water trade, Shiva argues that as water is vital to all life on earth, it should not be viewed as a commodity to be bought and sold. Instead, access to safe and reliable water should be a common right to all.

Although the author uses the context of traditional Indian communal water distribution systems, the underlying argument for the sustainable use of water is pertinent in the

global context. Because water must be used only within limits of renewability, Shiva (2002) argues for collective community management of water and advocates traditional methods of water management as opposed to technical and market-based approaches. She shows how the trend toward privatization of water threatens cultures and livelihoods arguing that "the water crisis is an ecological crisis with commercial causes but no market solutions" (p 15).

To follow on from this initial research into theoretical perspectives associated with environmental issues, and to investigate further global equity issues regarding water, my focus shifted to an examination of literature relating to the politics of water resource management. Of the multitude of work dealing with this topical issue, three texts presented as benchmarks for an examination of the ecological, economic and social aspects of international water politics.

In his publication *Water - The Fate of Our Most Precious Resource* (2000), De Villiers presents a comprehensive overview of the international context of water both from an historical and contemporary perspective. Following an examination of specific environmental problems associated with water, the author offers an analysis of water conflicts around the world and concludes that steps toward solving the looming worldwide water crisis involve a recognition that water "is part of the global commons, not 'property' but part of our lifesupport system" (De Villiers, 2000, p. xiv).

Similarly, Postel's book *The Last Oasis: Facing Water Scarcity* (1992) offers a detailed account of the historical and current situation of international water resource management. Through an examination of the economic, political and ecological limits of water, Postel (1992, p 184-5) argues that technology exists to conserve and efficiently use water, but a new 'water ethic' must be established whereby "modern society's disconnection from water's life-giving qualities" is reversed to create a stewardship approach.

Ward's recent contribution *Water Wars: Drought Flood, Folly and the Politics of Thirst* (2002) continues the examination of water management issues by presenting various international case studies of environmental issues associated with water. Her analysis of the various stakeholders and controversies associated with the iconic Snowy River in Australia, and the politics surrounding reinstatement of river flows and recent moves to corporatize the Snowy Hydro Electric Scheme, yields astute observations regarding possible impacts on future river management directions.

The Snowy River controversy forms part of a growing number of environmental problems related to water management in the Australian context, which in turn give rise to a myriad of social and economic issues that combine to create a complex set of politics. To gain an understanding of the current issues, it is necessary to examine the history of water use in Australia from both a geophysical and cultural perspective.

The comprehensive work of Australian palaeontologist, environmental scientist and activist Mary E. White in *Listen...Our Land Is Crying:Australia's Environment - Problems and Solutions* (1997) and the companion volume *Running Down: Water in a Changing Land* (2000) closely examines current water resource issues in Australia against the prehistoric geological background of the continent. White argues that current Eurocentric land practices are unsustainable, with environmental degradation problems including salinity and reduced river flows a consequence of these farming methods.

Various river catchment areas throughout Australia including the Murray-Darling Basin, are studied to demonstrate the current ecological crisis being experienced by these areas. To reinforce her argument for the need to develop new systems of agriculture in Australia, White (1997) draws on the principles of deep ecology including the Gaia hypothesis to describe the interconnected nature of the 'living earth' where life itself plays an active role in maintaining the conditions necessary for its own continuation.

The geographical essays of Heathcote and Mabbutt (1988) also contribute to the water resource management debate in Australia through an examination of various aspects of water use and the resultant problems. As a result of their analysis of the issues associated with water allocation for irrigation in eastern Australia, the authors suggest the need for studies of the environmental and social aspects of the politics of private and public sector involvement in water utilization.

Watershed (2001), Fullerton's recent examination of current debates in water resource management in Australia, uses case studies of various issues including irrigation, salinity, and groundwater supplies to illustrate the complex and controversial nature of the politics of water. The text also provides an informative overview of the history and structure of government regulation of water in Australia over the last fifty years, and how this framework has sought to adapt to the changing economic and environmental conditions of water use during this time.

Kingston's *A Free-flowing River: The Ecology of the Paroo River* (1999), a comprehensive case study of the last river catchment system in the Murray-Darling Basin unaltered by water extraction, documents the ecological and social impacts of water management decisions in the context of the local and wider regions. The study researches the importance of knowledge of different groups of 'river-people' in the decision-making process for resource management, including Aboriginal people, graziers, town residents and irrigators (Goodall in Kingston, 1999). By focusing on the differing perceptions of various groups toward environmental change, the need for comprehensive oral history research projects to document and learn from the river residents of catchments such as the Paroo is identified.

Similarly, Sinclair's environmental history *The Murray: A River and Its People* (2001), advocates an understanding of the connections between people and the ecological processes that sustain them in the context of the environmental degradation of the river. Sinclair argues that a profound change in the way Australian's think about the river and

its history is necessary in order to preserve remaining unaltered areas of the rivers, and ensure a healthier future for the regulated Murray. Sinclair explains how “settler Australians need to achieve a fuller realization of the distinct cultural and ecological dimensions of their country in order to imagine a future other than the river's present dismal condition” (Sinclair, 2001, p. 118). To achieve this, the author draws from the Aboriginal concept of being able to “think themselves into the country”(Dodson in Sinclair, 2001, p. 22). The study aims to remind Australians that within their culture are stories whose telling will help them learn to live sustainably with the Murray through understanding “the connections between themselves and the ecological processes that ultimately sustain them” (Sinclair, 2001, p. 234).

The theme of place is explored further in various publications including the collection of essays edited by Griffiths and Robin (1997) *Ecology and Empire: Environmental History of Settler Societies* where the Australian context is used to examine the relationship between settlers and the environment. The connection between distinctive ecologies and histories of settler societies is explored, concluding with the need for a rethink of traditional colonization/settler history narratives to include the role of environment and ecology (Lowenthal in Griffiths and Robin, 1997).

In an interesting contribution to this debate titled *The Colonial Earth* (2002), Bonyhady argues that Australian colonists did not have a destructive relationship to the environment. Instead, he contends that the ecological degradation experienced since European invasion occurred as a result of sacrificing environmental ideals to political expediency and commercial self-interest (Bonyhady, 2002).

Bonyhady and Griffiths (2002) continue this exploration of the relationship between landscape and language in the Australian context in the compilation of essays titled *Words for Country: Landscape and Language in Australia* which examines both environmental and cultural aspects of how stories originate in places and may then in turn transform them. Following on from her essay in Kingston (1999) Goodall explores

further issues associated with irrigation and cotton farming in the Darling Floodplain region of far western New South Wales by researching how various groups of people relate to and interpret their environment (Goodall in Bonyhady and Griffiths 2002).

In his widely acclaimed text *Landprints* (1997) Seddon examines the relationship between 'sense of place' and language which Bonyhady and Griffiths (p. 11, 2002) describe as a unification of "earth and paper...nature and culture". Seddon's thoughtful analysis is a synthesis of varied disciplines including english, geology, history, philosophy, science and environmental studies and results in a holistic approach to researching and remedying environmental problems.

Despite thoughtful and considered contributions such as Seddon's *Landprints* (1997), current academic and popular debate surrounding the politics of water in Australia is polarized by those campaigning for the urgent need to rethink water management practices and adopt ecologically sustainable levels of use, and advocates of the 'free market' approach to natural resource management whereby market mechanisms work to ensure the continued viability of important resources such as water.

As a proponent of the neoliberal market-based approach to water management, Marohasy (2004) offers a critique of the campaign to halt the degradation of the Murray River system in her article *Why "Save The Murray"?* Marohasy (2004) argues that there is a lack of credible scientific evidence to support claims of environmental degradation of the Murray River system and details how mainstream Australian media is guilty of participating in environmental activism underpinned by environmental fundamentalist thinking, through selectively reporting the issue instead of providing objective independent thinking.

In contrast to this position, Gleeson's critique of the Wentworth Group's *Blueprint for a Living Continent* (2004) argues that the group promotes a scientific reductionist approach

by advocating "a water policy isolated from considerations of the economic, social, spiritual and biophysical realities of our ecosystems" (2004, p1). In his paper titled *Have The Scientists Got It Right This Time?*, Gleeson examines various aspects of the water debate such as property rights and market mechanisms, and shows how values such as environmental flows are unable to be commodified by the market. By pointing out that "water rights don't equate to an ecologically sustainable development policy", the author argues that market-based mechanisms need to be based on sound ecological and equity foundations (Gleeson, 2004, p. 2).

Word count 2490

Explain no specific research quest formulated yet – will become clearer as research progresses – part of evolutionary process of researching topic/defining question – looking for gaps in current knowledge/debate – have not as yet conducted detailed search of electronic journal databases - avoid being limited to one question at this early stage of research – leave other possibilities open – monitoring media – gauging contemporary debates/concerns – env flows in Murray seems possible quest at this stage

AFTER INDIA-

Research question selected?

Link in with India conf (background to conf) – how it contributed/enhanced knowledge – refine research question – intersection of research topic with themes of conf – opportunity to gain idea of latest academic thought on issues – network with Australian/internat experts – findings/outcomes of conference

Include bibliography at end of report

