

Canoeing the Murray River (Australia) as environmental education: a tale of two rivers¹.

Abstract

The Murray River, lying at the heart of Australia's largest catchment, is used extensively in outdoor education programs in south-eastern Australia. Since European settlement the river's ecological health has declined considerably due to activities such as damming for irrigation and clearing of native vegetation. Colonial notions of how the river ought to behave and be utilised have contributed to the river's transformation physically, ecologically and culturally. In this critical reflection on practice and experiences I discuss two different outdoor education approaches to encountering the Murray: the river as a venue for canoe journeys; and, the river as a place with a unique ecology, declining health and diverse human relationships and impacts. Contrasting these encounters I draw attention to the need for consideration of the epistemological and ontological dimensions of practice that may shape the educational consequences of an experience.

Keywords

Outdoor education, Murray River, canoeing, Australia, epistemology, ontology.

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Introduction

The Murray River, in south-eastern Australia, has been irreversibly changed as a result of the activities of European settlement. There is growing evidence that the Murray is in the process of rejecting the physical and cultural transformation that it has undergone in this time. Declining water quality, loss of biodiversity, increasing salinity, and increasing numbers of introduced species all hint that the river is under mounting stress. The reasons for the declining river health are a complex mix of geology, ecology and changing patterns of human understanding and use (Sinclair, 2001).

The same mild climate, topography and easy gradient of the river that played a role in shaping the pattern of European settlement along the Murray has also led outdoor educators of south-eastern Australia to utilize the area in their programs. Andrew Brookes (2002, p. 406), an Australian outdoor educator, asks the pertinent question “does it matter if, and how contemporary Australians experience the bush?”. If I make the assumption that yes, contemporary Australians will experience the bush, or in this case the river, then the issue becomes how might they encounter the bush or river and what role might outdoor education play in taking Australians into the outdoors. As outdoor education experiences construct places, and meanings of place, through the approach taken in an experience (Brookes, 2002), what shape ought an experience take in order to address erosion, salinity, or declining biodiversity? The combination of a relatively easy setting in which to conduct canoe journeys and the current declining health of the Murray has prompted me to consider how I might construct outdoor education experiences that will increase awareness and understanding of environmental issues facing the Murray. In this paper I reflect critically of my practice and experiences to explore the educational consequences of two different ways of encountering the Murray River: the river as a venue to canoe and camp, and the river as a place with a particular ecology, inhabitants, history, and a range of cultural understandings. Thus, the title ‘Canoeing the Murray River (Australia) as environmental education: a tale of two rivers’. In considering these two encounters with the river I am concerned with the educational consequences of the knowledge and reality of the river that is generated through different ways of engaging with the Murray.

The Murray River: a place for education

The Murray is an ancient and long river (approximately 2,600 km) with a large catchment that is relatively flat and dry. Situated west of the Great Dividing Range in south-eastern Australia the catchment of the Murray-Darling Basin covers approximately one seventh of continental Australia. The Murray collects most of its water from the high rainfall zone of the Australian Alps in the east of the basin, where it rises at about 2000 metres. For example, the catchment above the Hume Dam, on the Murray at Albury, covers less than 2% of the area of the basin yet provides almost 40% of the river’s flow (Rutherford, 1990). After leaving the headwaters the river flows across the Riverine Plains, which are typified by their low gradient and low rainfall; the rivers in this area contributing virtually no flow to the Murray. This set of conditions has played a significant role in shaping the many ways people, both aboriginal and European settlers, have utilised and conceptualised the river.

The river, which today is called the Murray, has existed for more than sixty million years. Humans have lived in the area for more than 40,000 years, with Europeans less than 200 years (Mackay, 1990). For some groups of aboriginal people the river was the Millewa, a source of food, water, timber for fires, shelters and canoes, and perhaps more significantly as source of cultural identity (Walker, 1983). The arrival of Europeans heralded a dramatic transformation of the river physically and culturally. Many Australian rivers, like other attributes of the continent, such as trees that keep their foliage all year round, did not conform to the European concept of nature. The Millewa was no exception; a river that flowed inland for much of its length with an irregular and unpredictable flow, it didn't fit the European notion of a river (Carter, 1987). Early Europeans were further confounding by the fact that many Australian rivers don't flow to the sea. While the Murray does eventually reach the sea its seemingly tortuous route generated the impression for European explorers such as Sturt and Mitchell that it flowed to an inland sea (Carter, 1987). Ironically, the transformation of the Murray since European settlement has meant that in recent years the river hasn't flowed into the sea due to the intensive demands placed on it to provide water for agricultural production.

The landscape of the Murray did, however, provide the ingredients for a European vision of life based on agricultural wealth. With European settlement came the dispossession of the aboriginal people and widespread clearing of the native vegetation for grazing of livestock, broad acre farming and irrigation. The river itself has undergone considerable change through the introduction of a series of dams, weirs and channels to regulate and manage the movement of water. The unpredictable and uncontrollable nature of the pre-regulation river was perceived not as life enhancing but limiting. The river and landscape values that facilitated European settlement of the area have declined to the point where the old river no longer exists. Sinclair (2001, p. 22) warns that "if Australians forget the old Murray and the unique cultures and ecologies associated with its waters, they will also impoverish their capacity to forge new relationships with a different sort of Murray that is currently taking shape".

The Murray-Darling Basin is Australia's most productive agricultural region and has played a significant role in the financial development of Australia as a country, yet it is also experiencing severe widespread environmental degradation (Lawrence & Vanclay, 1992). The anecdotal and scientific evidence that the Murray's ecological health is declining is overwhelming (see for example Sinclair, 2001; Walker, 1983). The factors contributing to the current river health are complex but at the heart of the matter are the activities and attitudes of European settlers. The last 200 years have seen the introduction of cultural understandings of the land, agricultural practices and environmental management regimes that were essentially developed by a culture new to the Australian landscape (Bolton, 1992).

Turning my attention the role of the river in education I am confronted with the question 'do I ignore the declining health of the river, and continue with the colonial notion that the river is a new place to do as I please, or accept that the current state of river is a result of settlement and take on the challenge of creating education that might help address the issues?'.

While wanting to continue taking people to the Murray I have become conscious of how attentive experiences I conduct are to the health of the river and surrounding landscape. Sinclair (2001, p. 20) reminds me that “what is missing from many popular representations of the Murray’s degradation is an awareness of how the cultural and economic forces that justified the Murray’s transformation continue to influence management and popular attitudes”. With this imperative, the following discussion presents two different experiences of the Murray, both utilizing canoes as a means of travel, to shed light on the different educational consequences that may come from paying attention to the epistemological and ontological dimensions of experience.

Experience One: seeking wilderness on the Murray.

Wyman Herendeen (1986), in *From landscape to literature: the river and the myth of geography*, argues that it is no easy task to describe a river. Herendeen suggests that describing a river is more difficult than describing a stone, tree or mountain due to the river giving the appearance of continually changing, in space and time. Describing an experience of a river is equally difficult, fraught with the question of what to include and exclude. The intention here, therefore, is not to attempt to describe all the detail of the river and an experience of it but rather to outline particular aspects that contribute to shaping experience.

As a result of the activities of settler Australians the Murray is now lined for much of its 2600 km by a thin strip of native vegetation, in some places literally only one or two trees deep, and in other places several kilometres. There are a few sections along the river that have not been permanently cleared; these are usually areas that are low lying and subject to frequent inundation. The Barmah-Millewa Forest, covering 70,000 hectares, the world’s largest stand of River Red Gum (*Eucalyptus camaldulensis*), is one such area. Compared to other sections of the river this area gives the *appearance* of being relatively undisturbed, though it is still seasonally grazed by cattle and timber is selectively cut from the forest. This can produce in the uninitiated a sense of wilderness, that the river and the forest are free of the impact of settler Australians. There is no doubting the beauty of this section of the Murray but it is not typical or representative of most of the river.

I have spent a considerable amount of time on this section of the Murray conducting 4-day canoe journeys with tertiary outdoor education students. The initial model of this experience was not conceived by myself but by a mentor, though I came to love it as my own². This journey typically focussed on travelling simply through the forest using open Canadian canoes³, living communally under tarpaulins (no tents), cooking communally on fires using camp ovens and billies (cooking pots) with unprocessed food. I typically framed trips around encountering the river and the forest on their terms; developing an awareness of how to live in the place.

Travelling in a group of 12-15 we might paddle in a number of ways: in pairs, solo, in small groups or rafted up together to talk or watch the surrounding country slip by. The river flows quickly enough to aid movement downstream but not too quickly to be dangerous or make watching wildlife or the bush difficult. The structure of each day was usually determined by two things; the need to get further down the river and cooking enough food for the group for the day (for example, using camp ovens to bake enough

bread for a group of 12-15 people can take between 3 and 4 hours). These constraints often produced tension as one required packing up and moving on and the other staying put, tending the fire and baking food.

Experience Two: the Murray River – a peopled landscape.

This experience is an evolution of the former; it comes out of my experience and joy of canoeing on and camping beside the Murray, and my evolving concern for the ways in which the river is conceptualised and experienced by outdoor educators. The experience involves two encounters with the river; one of three days, and the other, four days. The sections of the Murray travelled on these experiences are significantly different to the experience described above and have been purposefully selected to reflect some of the cultural and environmental issues facing the river today.

The three-day experience covers approximately 45 km of the Murray near the township of Echuca and has a mixture of land cleared for farming, thin strips of forest heavily cut for timber, people recreating in the forest and on the river, and many impacts associated with a town of 10,000-15,000 people. In the heyday of paddle steamers, between 1860s and 1900s, Echuca was Australia's largest inland port with a wharf 1.2 km long. Today the remaining wharf and a handful of riverboats are one of the main tourist attractions in the town.

In this encounter with the river I focus the experience on how people of the Echuca region historically and currently use and engage with the river, physically, emotionally and intellectually. The distances we travel each day are relatively short, allowing time to periodically get off the river and explore anabranches and billabongs (old sections of the river that have been left behind and now provide important breeding grounds for wetland birds), wander in the forest looking at the timber removal practices, agricultural activities, pumping stations, or signs of aboriginal habitation. This produces a striking contrast as the river flows into Echuca with its history of paddle steamers and river trade.

During the four-day encounter with the river I focus the experience on the connections between the use of the river for irrigation, declining river health and the search for solutions by local farmers. The experience takes in the Gunbower section of the river, further downstream from Echuca. Two days are devoted to exploring the Torrumbarry Weir, its cultural significance and impact on the river. The second two days are spent visiting a local farming family to hear and experience their stories of increased salinity, declining land productivity and the adjustments they are making to ensure their viability. Part of the two days involves assisting with fencing remnant bush, replanting native vegetation to lower the water table and conducting ecological surveys to monitor environmental change.

On both of these encounters I structure the experiences to emphasize how local people relate to and impact on the river landscape. While the personal aspect of camping in the forest and using canoes to see the Murray is important to the overall experience of the river it is secondary to understanding the ecology of the river and how it has been altered through the activities of local people. For example, participants may cook on small portable stoves individually or in small groups, freeing up time to wander in the forest

observing wildlife or identifying the vegetation. Being on or beside the river, or the physicality of the activity, is not the focus of these experiences but rather the means to developing an understanding of how local people have used, made sense of and impacted on the river and surrounding landscape. It is to the different realities of the two experiences that I now turn.

Contrasting realities: transforming the river

As an educator I am mindful that in the process of building outdoor education experiences I consume places, literally and metaphorically (for more detail see Urry, 1995). The educational challenge, for me, is to be conscious of the messages hidden within an experience that articulate a place judgement. For example, in the process of choosing a venue and building educational experiences judgements are made about the suitability of a place to achieve the desired outcomes. While the two experiences recounted here both utilise canoeing to reveal the Murray they present vastly different encounters with the same river. One is of the river 'little' disturbed by human activity and the other is a river significantly altered by human use.

The first experience, traversing an atypical section of the river, with a group and activity focus, presents the river and its health as a lesser concern than the experience of those involved. The river becomes a backdrop in an experience dominated by group living, cooking, canoeing, and understanding the place in terms of what it provides us (wood to cook with, a view of the river to camp beside, trees to sleep under, an 'easy' river to travel on, to mention a few). That is, the river as an entity with its own health is overshadowed by the human endeavour in the place. This has been the dominant approach of recent times, for as we have seen, settler Australians have rebuilt the Murray to fit their perception of how a river ought behave rather than adjust their perception to fit the reality of the river (Carter, 1987). The approach in this experience runs the risk of perpetuating the colonial notion that we are free to reconstruct the river to suit our own desires, that it is a wilderness⁴ free of human history upon which can be written our own stories, and in the process deny the history, stories and meaning others have made of the river.

In developing the second set of experiences I have intentionally chosen sections that are more typical of the Murray, that are unlikely to be perceived as wilderness. Through these encounters I draw attention to the river and multiple ways its health is determined by the activities and relationships of local people. The activity of canoeing becomes a means to developing an understanding of the river and its socio-ecological health rather than an end in itself. Sinclair (2001) highlights, for example, that the river travelled by Sturt, an early European explorer, was a profoundly Aboriginal place. This is in stark contrast to today's river. An experience of the Murray can be that of a 'new river' free of the messy details that come with acknowledging a land and river once inhabited by indigenous people (and thus perpetuate the colonial approach), or it can be of an 'old river' with a unique geological and ecological history, human use and impacts that combine to shape the current ecological health of the river.

The river experience as environmental education: why ontological and epistemological dimensions matter.

As education and educators are not value neutral (Jickling & Spork, 1998) the seemingly very simple process of constructing an outdoor experience is a communication of how to be in and relate to the surrounding world. The reality we construct through our engagement with a place, reflects, in part, our concept of that particular environment, our attitudes and values, and our knowledge of what the place offers us. An experience of a place may be a reflection of our knowledge and understanding of a place (Casey, 1993).

If I consider an outdoor education experience, the knowledge that I might develop about a place is shaped by the purpose and the physicality of the engagement (the mode of travel utilised). The focus of engagement with a place shapes the way it is revealed and understood (Relph, 1976). In guiding a canoe journey down the river participants with me will not only gain knowledge but experience a way of being and an intentionally constructed reality. The river is made, and remade, through the process of engagement (canoeing) carrying with it particular messages of the river and its health. That is, the act of canoeing reals the river in a very particular way that provides a framework for developing knowledge and understand of the place. Engaging with the river is limited by the characteristics of the place but also by the medium of engagement and ways of seeing the place. There is tension here as I might make sense of a place through the meaning I give it, though place plays a role in shaping that meaning (through defining engagement), all the while potentially ignoring any intrinsic qualities the place may have (Stewart, 2003).

Brookes highlights that experience carries an ontological dimension that requires attention: “interactions express knowledge, and at the same time the world is revealed through interaction, with the ever present possibility of new interactions revealing new realities. Conversely, the performance may reveal ignorance and render the world invisible” (1998, p. 6). Payne (1995, 1997) also draws attention to the need for educators to be conscious of the ontological dimensions of experience in developing environmental education. The two accounts of the river given here produce quite different realities of the Murray. Constructing experience around the Murray as place to canoe and camp builds knowledge and a reality that foremost is about the river as a venue to undertake the activity. A focus on mastering skills to manage the craft, paddle, equipment, and remaining safe and comfortable can divert attention from the particulars of the river; can make the river a venue for canoeing rather than a place to get to know through canoeing. Payne (2002) argues that the social and cultural aspects of activities used in outdoor education, such as kayaking or canoeing, may well be reproducing cultural patterns that are contributing to current socio-ecological problems. When the activity, social relations of the group and the living of the individuals involved is the primary concern of an experience then the place becomes secondary. In flipping the emphasis of the experience, using the craft as a means to travel and tool for getting to know the area, the river and associated issues can become the primary concern. The differences may appear subtle but the ontological and epistemological dimensions of each are substantially different. Further discussion may help clarify the disparate nature of these experiences.

A reality that is based on the knowledge of how long it takes to cook a meal for 15 people using camp ovens and a fire, the burning properties of different types of wood, where to camp, where not to camp, and how much paddling is needed to arrive at the end point on time, may pay little attention to the particulars of the environment beyond how to live, be safe and arrive on time. This knowledge is in a sense ephemeral and contextual for beyond the experience it has little life. The knowledge may be applied to similar trips in similar places but how might it contribute to one's understanding of the environmental issues facing the river and its human and non-human inhabitants?

In an encounter with the Murray, I also cannot assume that close proximity to the river will ensure that participants learn about the health of the river. Sinclair (2001) observes that towns along the Murray, like Echuca, which historically were linked to the river (their settlement, in part, was due to their proximity to the river), have through technological and cultural changes become isolated from the river. While geographically close, people of these towns are physically and culturally removed from the river and thus surprised at its declining health. Close physical proximity isn't enough to ensure connection with and care for the river.

Building an experience that is concerned with the health of the Murray requires the representation or the embodiment of knowledge other than the river as a place to canoe. Payne (2002, 2003) highlights the non-neutrality of technology, in this case the canoe, in shaping experience; that technology in outdoor experiences may act to manufacture or re-order perceptions of the environment. An experience that addresses the health of the river, therefore, requires reference to how the area has evolved geologically and ecologically, and how different people have grasped, made sense of, and utilized the area. De-emphasising the activity and experience of the individuals involved creates space to investigate these issues. Experience of the place is still important but the emphasis is placed on the river and its health, not canoeing the river for the sake of the experience.

The preparation of participants prior to undertaking an experience can play a significant role in shaping the epistemological and ontological dimensions of the experience itself. For example, developing awareness of a section of the river prior to an encounter with the river, how it is used, occupied, lived in, and conceptualised by different community groups, may provide reference points for understanding the experience, who and what is encountered, and their significance to the place. In contrast, if going to a place is about an activity, a way of occupying a space, and encounters with others in the place are secondary or peripheral, then the knowledge and understandings of the place are likely to be structured in a similar manner.

Encountering the Murray as a complex place with distinctive geology, ecology and diverse cultural understandings requires outdoor educators to draw on knowledge from a range of sources. Slattery (2001), for example, advocates reference to environmental history; the history of natural history and cultural history. Drawing on knowledge that is supportive of but outside the experience increases the potential of participants to develop awareness of the complex mix of environmental and cultural issues that contribute to shaping a place.

While the Murray River carries a unique set of socio-ecological and historical issues to be integrated into place-sensitive outdoor education the concepts developed here may well be used in other environments and programs. With some consideration, for example, of the choice of venue, experience and competence of the participants, distances travelled, and the particular issues of a place, similar types of experiences using other means of travel could be constructed to achieve socio-ecological informed place-sensitive outdoor education.

By way of conclusion...

The scope for outdoor education to play a role in facilitating awareness and understanding of the plight of the Murray is considerable. Sinclair suggests that “a profound change in the way Australians think about the river and its history is necessary if we hope to preserve what remains of the old river, and imagine a healthier future for the regulated Murray” (2001, p. 20).

In this paper I have advocated that an outdoor education experience of the Murray ought to reflect the wider ecological reality of the river system. The educational consequences of structuring experiences around being safe, competent and comfortable canoeing down the Murray are substantially different to an encounter that is focusing on the human agent in determining ecological health of the river. As experience may be an embodiment of knowledge, an outdoor education encounter with the Murray that fails to make reference to the ecological health of the river has the strong potential to reproduce cultural patterns and misunderstandings that have contributed to environmental degradation. The way the river is encountered, the intentions of an experience, and mode of travel, all give priority to particular aspects of knowledge and understandings. Structuring experience with an emphasis on using the activity as a means to explore the river as living entity that has multiple cultural meanings may assist in developing awareness of human capacity to transform the river. Sinclair (2001, p. 243) argues that “settler Australians need to understand and mourn the immense losses they have inflicted on the river. They need to recognise the stories within their culture that can help them imagine a new future for the Murray”. The landscape of the Murray River is full of stories of past human activity, with tensions and contradictions; the challenge as educators is to make these stories, and those within them, real and significant in the fabric of the river and the experience of it.

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Notes

¹ The title for this paper, in part, came from inspiration drawn from Paul Sinclair's (2001) *The Murray: a river and its people*. Sinclair argues that the Murray is at least two rivers at anyone time: old and new, natural and unnatural, unregulated and regulated.

² In describing and discussing different approaches to structuring experience I do not intend to be disrespectful to those who have shown me the wonders of canoeing the river and camping in the forest. My intention rather, is to explore the different realities and knowledge that may be generated by structuring experiences in different ways.

³ Canoes are a frequently used craft in outdoor education of south-eastern Australia. They are not, however, canoes of the design used by aboriginal people prior to European settlement; they are typically canoes with design roots in Canada. The aboriginal people of the Millewa cut large slabs of bark from River Red Gum trees, dried them over hot coals and fashioned them into large, often broad canoes (for more details see Curr, 1965; Edwards, 1972).

⁴ Brookes (2001) argues that the construction of nature as 'wilderness' makes a virtue of disengagement and estrangement from place. Sinclair (2001) also observes that modern ideas of wilderness leave humans outside nature, and nature outside history.