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Reading Between the Lines—Out

Outdoor activities allow us to interact with, and get to know, particular natural environments. Yet we must experience the outdoors as observers, never being a part of what we see...

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The idea that we share largely unspoken habits, conventions, and patterns of behavior which are culturally specific is central to any consideration of how educators should respond to the environmental crisis (Bowers, 1993). Environmental problems, Bowers argues, cannot be solved merely by changes to personal behavior. Recycling, tree planting, and similar strategies are, in effect, different ways of struggling in a web of beliefs which bind us ever more securely to a future none of us want.

For Bowers, current educational thought—liberal, critical, and conservative—offers inadequate responses to the environmental crisis. He argues that present environmental problems have their genesis in patterns of thought so habitual that environmental education itself may actually reinforce them.

If Bowers is right, then educators face a formidable task in responding credibly to the environmental crisis. Recognizing one's own tacit belief structures is difficult, and demands of teachers a level of theorizing many would rather avoid. However, "self-denying strategies, failure to exercise intelligence commensurate with the scope of the problem...will not displace the ecological crisis as the most pressing political and moral issue facing humankind" (Bowers, 1993, p. 32).

For those who teach in the outdoors, Bowers' argument is doubly relevant. First, much of what he says about education in general applies equally to outdoor education and recreation. Second, his analysis implies new ways to understand the unique environmental education potential of activities in outdoor settings.

Interpreting Outdoor Activities as Performance

The idea that outdoor activities are performances, or texts, in which we express and develop our understanding of environment is essential to adapting Bowers' analysis of classroom education to the outdoors. Settings matter in education, just as they do in fiction or drama. Behavior or understanding of behavior is adjusted, often unconsciously, according to where we are. Our awareness of the "rules" surfaces when a rule is breached, which we interpret as ignorance, rudeness, irony, rebellion, humor, or whatever. On many beaches, for example, no one will object if you remove your clothes to reveal a bathing suit; but if you do exactly the same thing in front of a classroom the reaction will be quite different. Even slight changes of clothing or demeanor may be noted as discordant in some situations. All of us are highly attuned to our cultural environment.

Bowers' (1993) arguments compel us to reconsider basic assumptions shared by, and built into, the patterns and settings of everyday life. Going to another place, where the influence of the constructed world is muted (and television silenced), may provide, in a unique way, the kinds of insights he says are essential. If so, the burden of ameliorating the environmental crisis may rest disproportionately on those who teach in the outdoors.

Those who take others into the outdoors have the task of socializing participants into that environment. No participant goes innocently to the outdoors; even those with little prior experience will have expectations de-

with a sort of convulsive self-importance. For the last stage of this cultural development, it might well be truly said: Specialists without spirit, sensualists without heart; the nullity imagines that it has attained a level of civilisation never before achieved' (in Csikszentmihalyi, 1981, p.182).

Our alternative is to keep alive as broad a range of technological experiences as possible. To invest meaning in our techniques and skills that make us question the world through our actions. When it comes to heritage we must do more than preserve, we must experience and know this experience, because that is the only way that meaning comes to dwell in the body. 'All craft skill then requires the protection of an everywhere museum - a museum that lives rather than objectifies; a museum that operates as an actively used archive, rather than one which simply stores; and a museum that fuels research rather than arrests concerned knowledge and practice as designated as belonging in the past.' (Fry, 1992, p. 265)

Finally, when we wipe away the sawdust and sweat after another days work of care is done, or when we consider our students as they cradle in their hands the crafted object which has become invested with meaning, we must remember that '...the loss of hand-exercised skill is the loss of a certain mode of being human in the Being of all and everything' (Fry, 1992, p. 265). It is only by the work of our bodies, in careful and skilful transaction with the world, that we may continue to make a place where we can dwell.

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7. Community Celebration: The cultural ways we express our dependency on, and relationship with, the land through the items we make and our ability to make them.
8. Returning Back: The actions we perform to acknowledge our understanding of the natural cycles, materials participate in on Earth.

The principle claims of Outdoor Education: to provide experiences of *contrast* value; to focus on relationships (with self, others and 'nature'); and, to employ an experiential methodology, are well supported through the craft experience. For learners to engage with the Earth's materiality so directly, and to experience the functional and symbolic work of technology so practically, enables the educator to avoid much of the hidden curriculum of the techno-system.

The Nungatta Experience; An example of a Pedagogy of Production

In May of each year a good friend of mine, Arthur Curl and his Year 9 students (14 to 15 year olds) from the Melbourne Rudolph Steiner School board the old school bus and make the long trip to Nungatta Station in the remote south-eastern corner of mainland Australia. They go there from the city to experience a different way of Being in the world. One of the first tasks undertaken by students is to craft something so apparently simple and obvious that it could be easily overlooked – a wooden spoon. The spoon is perhaps the first tool that we ever learn to command as an infant. It is the first tool many of us give to our children which enables them to extend their abilities beyond the limits of their bodies.

The spoons are all made from an ancient blackwood tree near the shed at Nungatta – we cut rounds and split them and shape them with a tomahawk. (Curl, 1999).

It seems so simple looking at some of the student's spoons that Arthur has sent me with his letter. Yet when I pick each one up and turn it slowly in my hand – I'm not so sure. I must ask and question it to seek its meaning. Some of the spoons are left with the marks of the tomahawk and knife, while others have been sanded smooth and polished. Some have bold knots, swirling grain and a play of light sapwood and dark heartwood. All have curving handles that seem to have acquiesced to the flow of the grain in the timber yet look and feel as though they have been made beautifully to fit the hand. Not many of Australia's hardwoods grow with a straight and regular grain. Unlike Aboriginal woodworkers in Australia who allowed the function of an object to follow the form of the tree (Martin, 1996), it has taken European Australians many generations to un-learn the tradition of the dominant imposition of function

upon the irregular qualities of our timbers. We might just be beginning to learn to ask the tree, or that section of tree, what it wants to be (if it can no longer be a tree). Thus each of the student's spoons is more or less a combination of tree-ness and spoon-ness, an organic transaction, a reciprocated three-way asking, between tree, tool and maker.

This phenomenon may in part be described as a philosophy ingrained in some hand tools and timber, which waits to emerge for the attentive maker – a negotiation between the tool's cultural and idiosyncratic heritage, the current user, the material being worked and the situation of the experience. It is a transaction of embodied knowledge. Michael Pollan (1997, p. 142) had a strong sense of this when learning to work with tools and wood as a novice builder.

After some practice the tool began to feel light and alive in my hands, almost as if it knew what to do. Which in a sense it did. Like any good hand tool, but especially one that has been fine-tuned over centuries, a well-made chisel contains in its design a wealth of experience on which the hands of a receptive user can draw. Working properly with such a tool awakens that experience, that particular knowledge of wood, at the same time it helps to preserve it. When the chiselling was going particularly well, it reminded me of what it is like to work an exceptionally trained animal; if I paid close enough attention to what it wanted to do, even let it steer me a bit, the chisel had things to teach me.

Arthur has also sent me some photographs of this year's camp. One of them shows a student leaning against a wood-fired stove, which is pressed up against the shed's cladding of corrugated iron, working on the final stages of his spoon. It is cupped in his right hand whilst the left hand hollows a dish with a small hand tool. The right hand and indeed the whole body are cupped to produce the scoop that will eventuate in the spoon itself. The spoon will forever speak of the maker's body.

After the students have completed a few spoons they move onto the making of a rustic three-legged stool. The timber is sourced from a dump of discarded sections in an old sleeper cutter's camp in the forest. The top is selected and shaped (in part initially by Arthur with a chainsaw in negotiation with each student). From here on I must leave each reader to interpret from Arthur's own words something of the essence of the pedagogy of production involved in the final stages of creation and production of the rustic stool (Curl, 1999).

Craft

with a lap-top computer in order that they may participate in the 'information technology revolution'. The new technologies of the techno-system have great potential benefits - but they always come at a cost. The same schools operate with minimal or negligible staff who have specialist training or resources in such areas as music, art, craft, human movement or environmental education. Schools are more likely to partition their spending into upgrading the computer lab than starting an organic garden or furnishing a craft workshop. Almost daily newspaper articles beat a futuristic drum (especially in Education sections). These clippings were gathered in the space of a few days...

'Technologically speaking, there's no real issue in every nine-year old having a networked wearable computing device.'

'...there'll be little, if any, focus on the use of technology because it will be seamlessly integrated into the classroom.'

'Students may not even need to use their hands to do many tasks, including typing, which can slow their computer operations.'

'...the best way to learn is by experience and through virtual reality technology students will be able to feel the weightlessness of space or enjoy the grandeur of Amazonia'.

Melbourne's 'The Age' daily broadsheet newspaper publishes a weekly education supplement. So central to a modern vision of education has the techno-system become that the supplement is titled;

'Edu@tion'

The common elements of this brief selection of quotes are indicative. It is not difficult to interpret underlying assumptions regarding the belief that increasing speed is inherently good, of the further alienation of the body, and of the denial of the local and the real physical environment. It is a world where teachers and students alike are further marginalised from the physical work of education, a world where they are subordinated to the invisible and unchallenged culture of the techno-system. Those experiences of the body and the environment that cannot be digitalised cease to exist in this manifestation of the techno-system in education. We are invited to 'enjoy the grandeur of Amazonia' despite the reality that it may no longer exist. Indeed there is no compelling reason to sustain Amazonia once it has been digitalised into a virtual world.

From the outset of the Industrial Revolution in Western Europe both the Romantic and the Arts and Craft Movements have provided resistance against the loss of sensibility to nature and the crushing of the human spirit in what William Blake called the 'dark Satanic Mills'. John Ruskin and William Morris were the principle figures of the Art and Craft Movement and led 'a movement of protest against the workmanship and aesthetics of the Industrial Revolution' (Pye, 1968, p. 11). They were not opposed to technological development per se - rather to its role in *de-skilling* the worker.

Craft, in its most powerful sense refers to both performance and product. It is a *way of making*. For Michael Tawa the craft process is '...a way of being-in-(and with)-the world...' (Tawa, 1992, p. 263) which '...is increasingly important to retain in the face of technologies that de-democratise the power to shape the world through one's labour' (Tawa, 1992, p. 263). When craft is experienced in these ways '...it inverts the historical trajectory of technology to shift the directive power of the making of forms away from hand and machine-skilled labour into management maintained systems...it re-centres the human maker that advanced technology decentres and displaces.' (Tawa, 1992, p. 263). For Heidegger the knowledge found in the act of creating, or making, was 'other than the knowledge named theory'. Fry defined this knowledge as 'lodged in the practical performative act, as it is expressed by the hand as exercised as skill' (Fry, 1992, p. 260). It is practical knowledge that only exists in the body in action and results in a material artifact which is the embodiment of this form of human transaction with the material world.

Yet for all its educational potential, craft based experiential knowledge is disappearing from both the curriculum, including Outdoor Education and environmental education curriculum, and our lives in a broader sense. Medway (1997, pp. 5-6) for example, laments the loss of possibility in the demise of manual arts or 'technical studies', as it has been known, in schools systems;

It's easy to understand why the craft experience has disappeared from school...Such processes have become marginal to the modern economy. Large-scale fabrication is often done by machines following computer instructions in sheds without workers or lights. The making of one-off artefacts by single individuals, out of bits of wood or steel or fabric, is not the activity through which society's creative juices are currently flowing. Craft processes may be highly satisfying, but in the making of many of our most useful and pleasing

paddled by women and children and used to butcher seals killed by the men in their hunting kayaks), yet could see that their clothing and materials of the occupants were rough and improvised. Lopez concludes the story with their conversation upon meeting. "Where in the world have you come from?" asked Flaherty. "From far away, from big island, from far over there," answered Comock pointing. Then Comock smiled and made a joke about how poor the *umiak* must appear, and his family burst into laughter (Lopez, 1987, p198).

If we found ourselves in Comock's predicament what *could* we re-build of our material culture? What *should* we? Could we face such a challenge with an equal measure of humility, humour and skill? When we reflect upon human experience, what questions as educational researchers and practitioners should we ask of the technological basis of our culture and our Outdoor Education practice?

Outdoor and environmental educators and wilderness based programmers have long advocated the educational benefits of experiencing outdoor environments in terms of simplicity, remoteness, naturalness, self-sufficiency, dependence upon co-members of the group, silence, solitude and so on (Priest and Gass, 1997; Ewert, 1989; McRae, 1990). In a collective sense these experiences are considered to have *contrast* value in relation to the daily routine of modern existence in schools, universities and more likely than not, suburban homes and communities. These educational practices and philosophies are built upon assumptions regarding the need for experiences that provide a 'balanced' curriculum, or purport to serve as an antidote to the ailments of modern life. In some cases, programs claim to directly challenge deep seated Western belief systems about consumption, individualism, progress, rationalism, the authority of science and so on (Brookes, 1993; Cooper, year unkonwn). In addition, outdoor programs are often said to encourage experience with, and reflection upon, the learner's relationships with self, others and 'nature' (Martin, 1996; Priest, 1996).

Yet many of these programs employ sophisticated arrays of mass produced technology - everything from 'Gortex' to Global Positioning Systems (GPS), velcro to vacuum sealed, freeze dried dinners. Aldo Leopold cautioned half a century ago that, 'excessive mechanisation destroys contrasts by moving the factory to the woods or marsh' (1949, p.181). More recently, and specifically, I wrote an article that used the example of a hand-crafted canoe paddle to illuminate what potential for education is lost when we move away from more localised and personalised modes of production towards mass-produced industrial technologies (Wattchow, 1998). Philip Payne (1996, 1997) takes this issue further and challenges the philosophical basis of the educational claim of 'contrast value' by

exposing the hidden moral and political work of technology in the 'structuring' of experience, especially in relation to the allegedly 'natural' or 'authentic' experience of nature.

In Outdoor Education, as in all aspects of life, the culture/nature experience continues to be mediated by technology. Yet in some forms of experiential education, especially Outdoor and Environmental Education, both the 'hidden work' of technologies encountered and an inattention to the significance of technology by educators has the potential to deny the very lessons that educators seek to teach.

Techno-system

Many philosophers and historians have raised concerns regarding the impact of modern technology and industrial production on our 'material and psychic environment' (Postman, 1993, p. 40). For Marx and Engels (1972), the loss of 'the means of production' resulted in a multi layered '...estrangement from nature...from one's life activity...from control over one's consciousness...and from one's fellow men (sic)'. Further, Siegfried Gideon asked 'When did mechanisation take command?' (cited in Postman, 1993, p. 40). Lewis Mumford (1962) traced the influence of modern technics on civilisation through a causality of invention and social change. Some inventions, such as the mechanical clock, which was seen by Mumford (1962, p. 15) as 'the foremost machine in modern technics' provided a standardisation of culture which served as the necessary prelude to the rise of industrial capitalism. In Martin Heidegger's famous essay 'The question of technology', the philosopher argues for the need to seek, through the act of questioning, the 'essence' of technology. The 'technological' is central to Being, and that it may perform as both a 'bringing forth', an act of *poesis* (becoming through the act of creating), and/or as a 'challenging forth', which endangers both nature and Being (Heidegger, 1953).

According to Heidegger (1953, p. 287) '...we shall never experience our relationship to the essence of technology so long as we merely conceive and push forward the technological, put up with it, or evade it. Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. Further, he argued, '...we are delivered over to it in the worst possible way when we regard it as something neutral' (Heidegger, 1953, pp. 287-288).

Mihaly Csikszentmihalyi and Eugene Rochberg-Halton (1981) completed a five-year ethnographic study of people's interaction with domestic objects. They argued that we are in a state of constant transaction with the objects that surround us. They '...embody our aspirations, make skills manifest, and shape our identities.' (1981, p. 1). Through the nature of these constant transactions '...objects also make and use their makers and users' (1981, p. 1) So 'invisible' (Payne 1996) have technologie