Reynolds, M (2008) Book Review: *'Wisdom for a Livable Planet' by Carl N. McDaniel.* (2005). Environmental Education Research 14 (2) pp. 199-203 Print ISSN: 1350-4622 Online ISSN: 1469-5871

Wisdom *for a* Livable Planet *The visionary work of Terri Swearingen, Dave Foreman, Wes Jackson, Helena Norberg-Hodge, Werner Fornos, Herman Daly, Stephen Schneider, and David Orr.*

Carl N. McDaniel. 2005. Trinity University Press. Texas 277 pp ISBN 1-59534-008-4

This collection of biographic notes on eight environmental activists is, as the cover plaudits claim, inspirational and informative. The eight visionaries collectively provide a critique of prevailing economic drivers to ecological collapse. But in doing so, it disturbingly reifies a particular value-free notion of the natural sciences and scientific activity; a notion that might also be complicit to the ecological dilemmas being addressed. Leaving aside these concerns the moment, there is much in this book to commend. The dilemmas covered by each visionary respectively include pollution, biodiversity, agriculture, globalisation, population, economics, climate change, and education. Terri Swearingen's story is testament to the value of persistence, protest and civil disobedience in the face of unjust industrial interests (the rationale and siting of toxic-waste incinerators) and government interests (with insights to Al Gore's dubious involvement) and the inspiration behind Interface, an industrial company with creative approaches to toxic waste disposal. Dave Foreman's story traces the history from frustration through initiating the anarchic EarthFirst! - home to eco-warriors - to the ambitious Wildlands Project seeking to connect huge corridor tracts of wilderness areas in the United States and Canada. Wes Jackson's story centres on The Land Institute and its underlying principles of sustainable agriculture (a term first coined by Jackson). The story of Helena Norberg-Hodge relates to the International Society for Ecology and Culture; a project celebrating local indigenous peoples' practices as inspired by Norberg-Hodge's work amongst Ladakhi people in north India. Werner Fornos' story captures the persistent concern regarding the dangers of population growth amidst religious fundamentalists in the United States, and the initiation of a proactive wing of the Population Institute, the Population Action Council. Herman Daly's story is pivotal to the book in exemplifying the core critique of neoclassical growth economics, and the initiation of alternative steady-state principles embodied in contemporary *ecological economics*. Stephen Schneider's story captures the history of climate change science as an interdisciplinary focus exemplified through the journal founded by Schneider *Climate Change*. Schneider's greater legacy though is in fostering and making acceptable the role of advocacy amongst scientists, exemplified through his election to the U.S. National Academy of Sciences. Finally, David Orr's story revolves around educational practice and the importance of 'learning and labour'. The principles became manifest in creating the eco-friendly carbon-neutral Lewis Centre at Oberlin College, Ohio, as a centre for progressing ecological learning.

The vision advocated in the book is made clear in the final reflective chapter: "The task before humanity is nothing less than a total change from the dominant economic worldview to an ecological one" (p.220). This ecocentric vision is advocated through two significant pedagogic manoeuvres. Firstly, the author makes explicit the adoption of story-telling as a pedagogic mode of narrative in the book: "My hope is that if we all fully grasp the stories that express our connection to the rest of life and our

absolute dependence upon the bugs and weeds of the world – and we tell these stories – they will become part of humanity's sacred beliefs and lay the foundation for a future of continuous progress" (p.228). From my own perspective, I find these story lines a helpful personified and engaging narrative form for couching and conveying complex scientific ideas.

Secondly, in focusing on the importance of theories-in-action, McDaniel chooses to describe the work of exponents who *practice* their ideas, reinforcing the principle that an ecocentric vision can only be sustained through continual engagement with nature. Indeed the word *wisdom* in the title invokes precisely this type of experiential knowledge. The author clearly recognises its importance for generating ecological awareness. For example, following the lead from David Orr's 'learning and labour' motto McDaniel asks "[w]hat if every class in every educational institution, from preschool through university, adopted a local ecosystem as a means of informing its educational program? The students would observe, characterize, and respect the ecosystem, which would be the starting place for all aspects of their education" (p.215).

The dual strategy works as an effective device for advocacy. McDaniel, a Professor in Biology, has good narrative skills. The prose makes a refreshing alternative read to the typically academic reference-laden scientific text in which pearls of wisdom are often submerged (and hence lost in significance). Whilst there are many pearls in this book, my unease with *Wisdom for a Livable Planet* (WLP) is in the notion of my being a recipient of received wisdom. Wisdom revealed can invoke questions about wisdom concealed. McDaniel himself recognises this in the practice of others. For example, he challenges received wisdom of economic determinism. Referring to Adam Smith's much quoted 'invisible hand' of market economics in his *Wealth of Nations*, McDaniel alerts us to a less known text from Smith which reveals a wider ethical concern: "In *The Theory of Moral Sentiments* he cautions that self-interest cannot serve the public interest unless it is constrained by the moral force of shared community values" (p.162). Now as someone who studied modules on development economics as part of a postgraduate degree – which, moreover, included a critical examination of Smith's 'invisible hand' theory - I can fully vouch support for McDaniel's assertion. This previously hidden pearl regarding Smith's concern for shared values has made me interested in pursuing Smith's work again with a fresh perspective.

As an ecological citizen it is perhaps appropriate to ask questions of received wisdom; specifically, *what* is the unspoken circumscribed received wisdom? *how and by whom* is it being circumscribed? And *why* is it not questioned? In addressing the first question with reference to WLP, a clue to what is possibly passed as 'received wisdom' is provided ironically in the sentence following that cited above in McDaniel's critique of received wisdom of economic determinism and the lost pearl of Smith's ethical insight: "This ethical foundation on which classical economics is based has been lost as modern economists have sought to make their discipline *a value neutral science like physics*" (p.162; my italics). What pervades in WLP is an unquestioned faith in the practice of good science as being value-free. My reading of the worldview underlying this book is that of positivism. Not the extreme positivism assuming social sciences as *being* neutral, but to the extent of supporting an *aspiration to be* neutral. Whilst being appropriately critical of neoclassical economics

as being a pretence to a value-free (or neutral) discipline, the book makes implicit the claim that ecology and climate science is, or at least ought to be, a more value-free pursuit. Hence ecological economics founded on *true* steady-state biophysical principles is of higher value than neoclassical economics founded on more *value-laden* principles of human interests. Such lines of reasoning reinforce a perception of science as essentially disinterested practice. It masks the reality of professional people with particular institutional relations to each other embedded in a social matrix of power relations, knowledge management and political legitimacy (cf.(Kuhn 1962) My concern here is not to devalue the importance of science, but rather to re-evaluate its importance *given* its inevitable social bias. In elevating the authority of science as being a value neutral accumulation of knowledge, WLP may inadvertently perpetuate the trap of further alienating scientific literacy amongst citizens. Nurturing a confidence and skill in questioning science – that is, taking on the essential critical skills of science - provides an important measure of ecological citizenship (Ulrich 2000; MacGregor, Pardoe et al. 2005). So *how* does WLP perpetuate a flawed notion of scientific practice? Moreover, *why* might WLP do this? What greater purpose is being served and, if appropriate, how might it be served better?

There are three related features of McDaniel's narrative that contribute to a wisdom circumscribed by scientific objectivism: firstly, a less than transparent narrative; secondly, a supposed consensual positivist view of ecosystems and evolutionary determinism; and thirdly, a restriction of dialogical space for playing out controversy. First, the criteria for selecting the eight visionaries are never explicitly stated, and hence not deemed relevant or important. Criteria can though be discerned from the author's acknowledgements and biographic details of each chapter. Given the acknowledgment of extensive time provided by each chosen visionary for face to face conversation about their work, we can assume that the visionaries are English-speaking, mainly USA-resident, and living! This may seem like futile background information, but 'visions' as with the science supporting them, are not generated in a social vacuum. Acknowledging upfront the particular cultural and historic context in which visions are generated and practiced can help temper accusations of blinkered bias. The point is not that the book is weak through particular delimitations of culture-time, but that its potential strength might be undermined if read as being disembodied from a specified contextual milieu.

Second, the epistemological stance underpinning WLP is positivist realism, coupled with a predilection towards reductionism. Ecosystems are assumed to exist as real world entities and science is required to reveal the parts of these systems and their interrelatedness. Without question, we can agree with the idea that scientific method requires objectifying the real world. Ecosystems provide an example of the output from this process. But in science it is important to not confuse the map (i.e., the system) with the actual territory (real world). Drawing boundaries is ultimately a human activity infused with social purpose. Ecosystems are not objective entities but objectified entities and as such, their boundaries are open to dispute depending on different perspectives. (An example of such contention around biophysical boundaries is provided in the growing literature on social learning as a tool for resolving natural resource dilemmas e.g. (Blackmore, Ison et al. 2007) can help considerably in exploring and understanding effects of variables within bounded entities, but there is always a danger of science providing an ultimate moral authority through mistaking boundaries for actual reality. Furthermore, science can operate

with a reductionist focus on the properties of parts of a system as determinants of properties of the whole system. McDaniel's own narrative belies such a tendency. Take for example the author's predilection towards evolutionary determinism. In asking how humans effect havoc on biodiversity (chapter 3) McDaniel suggests: "[t]he simple answer is that we have evolved into an organism that is an extraordinarily effective agent of change, our powers practically equivalent to that of photosynthetic bacteria, which, beginning some two billion years ago, filled the atmosphere with oxygen, thereby poisoning most of the planet for those organisms that first evolved in the planet's oxygen-free atmosphere" (p.49). At one level the analogy is powerful, reminding us of human responsibility to life on earth. At another level, the analogy would appear to suggest that processes of evolution very much determine how we behave, thus by default questioning the rationale for responsibility being implored! Evolutionary determinism is a hallmark of the celebrated though very controversial ideas of *sociobiology* associated with Edward O. Wilson (Wilson 1975). McDaniel acknowledges Wilson's considerable influence through personal conversation and feedback in the process of writing the book, and he is cited explicitly in four of the eight visionary chapters. Wilson undoubtedly commands huge respect for his scientific practice and revelations on non-human social communities, but his method particularly when applied to human societies is not so universally acclaimed (see for example Part V in(Barlow 1998)for selected critiques including critiques from other natural scientists).

A third feature of WLP is that it closes down space for wider dialogue on scientific issues. In focusing the dilemma on a conflict between ecocentric and econocentric worldviews (p.228) attention is distracted from wider conflicts between science and society. Science is generally portrayed as serving the purpose of seeking the truth, and anything that suspiciously looks anything else is regarded as bad or misinformed science. Hence, in the final chapter of WLP Bjørn Lomborg's *The Skeptical Environmentalist* is dismissed as being scientifically discredited and therefore not worthy of comment. Indeed, Wilson is quoted as being bewildered by the amount of scientific intellectual effort wasted in addressing Lomborg's arguments: "We will always have contrarians like Lomborg whose sallies are characterized by wilful ignorance, selective quotations, disregard for communication with genuine experts, and destructive campaigning to attract the attention of the media rather than scientists" (p.222). In reading this descriptor, I'm inclined to suspect that most academics – myself included - might in truth be guilty! How many go out of their way looking for contrary evidence to their belief frameworks rather than marshalling evidence to support them? Which academics do not select quotations or hold contrary judgement on the genuineness of particular forms of expertise? And who would pass up an opportunity for disseminating their work to a wider non-academic audience? The point is that Lomborg uses particular statistical methods in making an argument and a case that clearly has widespread constituent support. Claiming that his arguments do not pass the test of scientific method and are therefore irrelevant, only serves to mystify science even more, lending to it some greater sense of sole moral authority, and in turn alienating it further from public access. The narrative used by McDaniel is rightly critical of a prevailing worldview of economic growth, and scientific evidence can and ought to be marshalled in support of such a critique. But McDaniel must also understand the purpose and force of argument in defending continual economic growth. Lomborg's constituents are not just wealthy Western citizens not wanting to relinquish their lifestyles, but also billions of people trapped in

abject poverty. Shouting ever louder that science does not support their case is not likely to have much positive impact. A mediating language that bridges science with economics and statistics might be more appropriate. An econocentric worldview in coupling consumerism and economic growth with happiness is part of a wider social political framework of capitalism; a framework that brings together particular practices and understandings of science (including ecology), economics and statistics pernicious to social and ecological well-being. Appreciating how these professional disciplines work in wider spheres of political and social activity can arguably prompt deeper sources of wisdom. Forces of wealth and production need to be more clearly understood. Whilst there are compelling ideas and pearls of wisdom in this book, there is a curious sense of muted outrage amongst the visionaries. Might it be that as scientists and academics more generally, we are complicit in benefiting from these forces? Clearly there still remains much work in bridging the divide between the two cultures of humanities and science first expressed by C.P. Snow over 50 years ago.

On a final note, WLP reminds me of a current revival of classic virtue ethics associated with Plato and Aristotle being enjoyed in the domain of environmental dilemmas (e.g., (Cafaro 2001). Wisdom is one of many types of virtue relevant to socio-ecological well-being, along with justice, hope, courage, compassion, self-sacrifice, benevolence, forgiveness, friendship etc. Whilst risking the danger of privileging one virtue over others, I particularly feel that *humility* is often an understated virtue amongst academics and practitioners alike in the world of environmental dilemmas. McDaniel alludes to this virtue with reference to the Greek myth of Icarus whose arrogance at being able to fly closer to the sun propelled him eventually to his death (p.2). The myth is recited effectively to admonish our collective arrogance and greed towards fulfilling economic growth. But it might also be an effective virtue against complacent science supporting ecocentric standpoints as well. It is a virtue that I witness being valued amongst similar academic/practitioners sharing the American cultural context of McDaniel's visionaries (cf. *(Westley, Zimmerman et al. 2006; Scharmer 2007)*, and one that perhaps deserves a higher profile complement to *wisdom* for livable planet.

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