

RESILIENCE & ENGAGEMENT: some thoughts on the magnetic impact of small change

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Abstract

One thing that seems increasingly certain is that the ‘science’ of sustainability is not our greatest challenge. In almost all ‘areas’ of sustainability, we know scientifically and technically what we need to do and how to do it; but we’re just not doing it.²

With respect to behaviour change toward sustainable practices, this paper considers the gap between knowing and mobilised action and investigates local urban examples where action is mobilised. The purpose of this is to consider what such examples can tell us about the conditions required to mobilise action and hence how to foster those conditions. Making cities sustainable is now a major aim and claim of most cities in the world.³ A myriad of definitions of sustainable development have been proposed but it has not been easy to find one that simultaneously satisfies economists, ecologists, sociologists, philosophers and policy makers. The problem in part relates to uncertainty about the object of sustainability, rather than the idea itself. What is it that ought to be sustained?⁴ It is increasingly internationally recognised that many effective solutions for environmental sustainability have their roots in local action and co-ordination. For that reason capacity within local government and the mobilisation of participation at the

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² Agyeman Julian ‘Environmental Justice & Sustainability’ chapter 11 in *Handbook of Sustainable Development* edited by Giles Atkinson, Simon Dietz, Eric Neumayer. (Pub) Cheltenham Edward Elgar 2007

³ Brand Peter and Thomas Michael J *Urban Environmentalism: Global Change and mediation of local Conflict* Routledge England 2005 p xi

⁴ Ruta Giovanni & Hamilton Kirk The Capital Approach to Sustainability in *Handbook for Sustainable Development* edited by Giles Atkinson, Simon Dietz, Eric Neumayer. (Pub) Cheltenham Edward Elgar 2007 p45

local level is a pivotal enabler for change. In the context of the discussion raised by the Cities, Nature Justice Conference and project, this paper focuses on discussion of urban local contexts and discusses the importance of local participation and engagement as critical enablers for mobilised action. Of particular interest in these local contexts, is the movement from a state of awareness of social and environmental issues of sustainability, to an active, constructive awareness that informs changes in behaviour and action that lead to sustainable practices of living. The first third of the paper outlines the argument for my choice to focus upon an investigation of the potential of the collaborative local urban context, the remainder of the paper discusses local urban examples and what they highlight about the possibilities for wider application.

Despite general fatigue surrounding the word sustainability, and sustainable living, the mobilisation of collective action does not appear to have kept pace with the rapid transformation in awareness of what is at stake. In the opening of his book 'The Sacred Balance' David Suzuki stated that 'more than ever, we need agreement about what humankind's real bottom line is'.⁵ Sustainability as an agenda has magnetically drawn a discussion of ethics, and moral responsibility into stark focus at a negotiation table where its former absence was conspicuous. In this moment where reflection on the viability of our previously taken-for-granted systems has reached the mainstream table of discussion, there is opportunity to consider, as Suzuki suggests, 'what is humanity's bottom line?' An approach to answering this question might begin with individuals articulating and expressing (through their choices and behaviour) that which is important to them. Following this, values which are evidently held in common may catalyse greater commitment mobilised from communities and perhaps nations of people. Whilst I do not intend to suggest this process is causal or linear, it seems a process of establishing common values is likely to involve social change, and begin with individual awareness coupled with engagement and participation, as a vital first step from which common values might be identifiable. Whilst at first glance, this approach may appear aligned with the contemporary individualised model of consumer society (beginning as it does with the individual) however, the subsequent stage requires collective action and collaborative planning and negotiation. It is to this process of determining what may be considered common and the challenges of collaboration and mobilisation to which I now turn.

⁵ Suzuki David *The Sacred Balance* Allen & Unwin 2007 (edition) Sydney p4

In my work as a consultant in 2007-2009 delivering education programs with residents in local government areas in urban NSW many people expressed the belief that individual action alone will not be sufficient to overcome the scale of change required to achieve sustainable living practices and for this reason had little motivation to change their behaviour. My understanding of their perception is that two pervasive features of the background conditions of the 20th century continue to influence people's perception of potential for change and social responsibility and mobility. Firstly, people are accustomed to the modernist approach of top down management and centralised planning⁶ and rely upon it for delivery of utilities of water, sanitation and electricity. Yet, the environmental costs of these services are not always visible nor felt in their local area. A reliance on centralised planning is coupled with a distancing from its impacts which can in turn diminish motivation for change. The second factor of continuing influence relates to this since the rapid expansion in travel, trade and the reach of the internet has brought an awareness of the interconnectedness of people's lives with multiple places. For these reasons it seemed, people are aware of the scale of the issues associated with sustainability, and feel their lives are bound in networks beyond their local area and beyond their control. As a result, their perception of the efficacy of their own or local action towards sustainable living practices was often undervalued, since the scale and reach of the issues were considered so vast; near in access, yet distant in reach.

My interest in this paper is to establish consideration of approaches to sustainable behaviour change which, whilst acknowledging the importance of centralised and government action, also explore alternatives. In the examples to follow, it is evident the alternatives focused on local urban action are not silver bullets, rather they require the development of social capital, trust and collective action. In contemporary times, there is an acknowledged tension between individual and collaborative effort. Yet, there is also an empowerment and momentum in local action which should not be underestimated. Indeed as Paul Brown stated "deliberative structures for local participation are a crucial part of bridging into the policy process".⁷ The response of

⁶ For further see Scott James C. *Seeing Like a State: How certain schemes to improve the human condition have failed* Yale University Press 1998

⁷ Paul Brown is Head of School of History & Philosophy at UNSW, in his presentation at the regional UNEP conference in Sydney November 27th-28th 2008, he discussed these issues of local participation and deliberative structures. Paul Brown was for seven years Chair of the Community Participation and Review Committee (CPRC), established in the Botany Bay municipality (a southeastern local government

decentralists, such as E.F. Schumacher and Leopold Kohr, to the crisis of sustainability begin with the belief that the centralisation of power is a cause of the crisis, not its cure. ‘Once centralised, power becomes more difficult to hold accountable’.⁸ Thus inherent in the opportunity to re-invigorate engagement and participation from the local level lies the possibility of reclaiming local agency, activating and leveraging its capacity for bridging into the policy process. Rob Hopkins outlines an eloquent case for this based on permaculture principles in his book *The Transition Handbook: From Oil Dependency to local Resilience* and this will be discussed further.

Chakrabarty describes: ‘Climate change poses for us a question of a human collectivity, an us, pointing to a figure of the universal that escapes our capacity to experience the world. It is more like a universal that arises from a shared sense of a catastrophe. It calls for a global approach to politics without the myth of a global identity’.⁹ Whilst global political agreement is a vital necessity on certain targets and benchmarks, the pursuit of global agreement requires the collaboration of many local and regional constituencies and their identities. In the context of sustainable behaviour change perhaps local and global action can be symbiotic and mutually leveraged. Only governments moved by an ethically robust and organised citizenry can act to ensure sustained momentum in international negotiation towards sustainable ends and only governments ‘prodded by their citizens can act to limit risks posed by technology or clean up the mess afterward.’¹⁰ Orr suggests that ‘the most glaring weakness of most proposals for reform is the omission of a concept of citizenship and participation in the process of change. Reinventing politics at the ecosystem level will require a process of civic renewal, or what Benjamin Barber calls “strong democracy”’.¹¹ The steady erosion of democratic

area of Sydney). This committee advises government and industry on the management of a particular form of hazardous waste, hexachlorobenzene (HCB), owned by the Australian chemical company Orica. He has published work discussing his experience of the dynamics of social engagement with respect to his involvement with this committee.

⁸ Orr David W. *Ecological Literacy: Education and the Transition to a Postmodern World State* University of New York Press 1992 p71 with reference to E F Schumacher *Small is Beautiful: Economics as if People Mattered* (New York, Harper Torch books 1974) and Leopold Kohr, *The Breakdown of Men & Nations* (New York: E.P.Dutton 1979)

⁹ Chakrabarty Dipesh ‘The Climate of History: Four theses’ in *Critical Inquirer* 35 Winter 2009 p222

¹⁰ Orr David Conservation in Context, Four Challenges of Sustainability in *Conservation Biology* Volume 16, No. 6 December 2002 p1458

¹¹ Barber Benjamin Strong Democracy Berkley University of California Press 1984, as quoted in Orr David W. *Ecological Literacy: Education and the Transition to a Postmodern World State* University of New York Press 1992 p75

participation in decision making about environmental issues, affects the prospects for sustainability unless participation is addressed.¹² As Orr describes, sustainability will require:

a much higher degree of ecological literacy throughout the entire population. In democratic societies, wise public choices about environmental issues depend largely on the extent and breadth of public knowledge of ecology and concepts such as thermodynamics and energetics and their interrelationships with economic prosperity, unemployment, war and peace, and public health. If large numbers of people do not understand the environmental facts of energy, resources, land, water, and wildlife, there is little hope for building sustainability at any level.¹³

Indeed local action is of critical value, since the local is the locus of familiarity, thus the nearest context from which to learn of environmental issues. Emotional investment and thus action to sustain the local is more readily engaged in what is near, and simultaneously, what is near acts as a visible reminder to reinforce the benefits of participation.

However, as Orr notes ‘ From the standpoint of education, the stumbling block to development of an ethic of place is not the complexity of the subject; it is the fact as Leopold put it, “that our educational system is headed away from.....an intense consciousness of land”.’¹⁴ Thus it appears necessary to establish an attunement to our interdependency with the natural environment first and foremost. For the reasons of familiarity and locus of emotional investment previously outlined, local environments are primary opportunities for this, hence my focus upon local urban contexts in this paper. In addition, there is also an opportunity to extend the nurturing of attunement to interdependencies to that of our neighbours. For it is within our understanding of our interdependency with the natural world *and* our interdependency with other humans, that the perception of agency and possibilities for participation are revealed.¹⁵

¹² Orr David W. *Ecological Literacy: Education and the Transition to a Postmodern World State* University of New York Press 1992 p76

¹³ Orr David W. 1992 p137

¹⁴ Orr David W. 1992 p131

¹⁵ Elizabeth Dodson Gray ‘Come Inside the Circle of Creation: The Ethic of Attunement’ in Ferre, *Ethics and environmental policy: theory meets practice*, University of Georgia Press, Athens. 1994

Awareness of the Environment as a responsive agent

One of the steps in this process of recognising our interdependence is in nurturing a constructive awareness of our environment as a responsive agent. This means developing an awareness of our environment as a system of interdependent aspects which are dynamic and shift in response to our behaviour and interaction with them. In my own professional practice and PhD research conducting a participatory plan with residents of Ngukurr, a remote Aboriginal community in South East Arnhem Land in Northern Australia, I was struck by how readily taken for granted this kind of awareness of interdependency is amongst people living in that region. I will explore discussion of this further but first I would like to borrow from Barry Lopez in his description of his travel experiences to remote places and his reliance on the approach of Indigenous people;

As a rule, indigenous people pay much closer attention to nuance in the physical world. They see more. And from only a handful of evidence, thoroughly observed, they can deduce more. Second, their history in a place, a combination of tribal and personal history, is typically deep. This history creates a temporal dimension in what is otherwise only a spatial landscape. Third, indigenous people tend to occupy the same moral universe as the land they sense. Their bonds with the earth are as much moral and biological. Over time I have come to think of these three qualities--paying intimate attention; a *storied* relationship to a place rather than a solely sensory awareness of it; and living in some sort of ethical unity with a place--as a fundamental human defence against loneliness. If you're intimate with a place, a place with whose history you're familiar, and you establish an ethical conversation with it, the implication that follows is this: the place knows you're there. It feels you.¹⁶

I share with Lopez a similarly profound respect for Indigenous people's relationship to country and in 2004 experienced this sense Lopez describes, of a place knowing we were there. As a trained Architect, undertaking research for a PhD, I was contracted on a consultancy for the NT government to work with local residents in Ngukurr, an Aboriginal community in South East Arnhem Land. I lived there for a year conducting a participatory planning exercise for future housing. Understanding relationships to country was crucial to understanding how people related to their environment and what they wanted for the future- how they wanted to live. Negotiations of settlement life were informed by the ontological primacy of Land. The relationships to the surrounding country enjoyed by people in the Roper region, stand as the foundation for all order in

¹⁶ Lopez Barry 'A Literature of Place' This essay is based in part upon a presentation by the author at the Salamanca Writers Festival in Hobart, Tasmania, in March 1996. This essay first appeared in this form in the University of Portland's *Portland Magazine*, Summer 1997.

http://arts.envirolink.org/literary_arts/BarryLopez_LitofPlace.html (Accessed November 2005)

their lives; from who will look after whom, who is answerable to whom, who can marry, where one can hunt, with whom fishing spoils and shop bought produce must be shared. Life is understood to originate in the spirits of the Land itself, and to return there when physical death occurs, thus the environment and all life are one in perpetuity. The network of relatedness that governs the order of life is derived from country, and country is always alive and communicating with those who can read her. Thus the natural environment is invested with agency which provides a consistently animated responsive communication between people and their environment. Since country responds to human action, maintaining an attuned perception and awareness of changes within country and respecting the agency of country become imperative to ensure the sustenance of life.

The agency of country can express itself through cheeky games for those who are impatient. In 2004 on route driving to a Women Ranger's conference on the Blythe River (near Maningrida, further in north Arnhem Land in Australia's north), I began to fatigue. My co-pilot, Valmai Roberts knew the track and was directing me. We had been driving nearly nine hours and I asked how much further it was to our destination. Valmai immediately berated me because, since I had asked- she said it would now take longer. She explained to me that from an early age when undertaking a trip, children are taught not to ask 'are we nearly there yet?' because the place you are travelling to might hear you ask, and decide to hide or move, which means it will take you longer to get there.

This suggests that an understanding of locations as the fixed anchor of reality, is insufficient, unless coupled with an appreciation of how a person's lived experience interacts with place. It could be that one doesn't ask aloud simply to avoid confirming the collective impatience which could in turn make the experience of the trip seem longer. However, in anchoring the reason for this within an appreciation of the role the place itself may play, it elevated the place from a static, mute background, to the position of another entity. A place could communicate or choose to respond to human action, or speech. Our destination could move if it chose to, and our experience of the trip would be elongated in time.

In urban living environments, this kind of constructive awareness of the responsive relationship to the surrounding environment is harder to maintain. Suzuki describes this is because;

Our ancient understanding of the exquisite interconnectivity of all life has been shattered. We find it increasingly difficult to recognise the linkages that once gave us a sense of place and belonging. After all we are flooded with food and goods that come from all parts of the world, so we scarcely notice that it's the middle of winter when we are buying fresh strawberries and cherries. The constraints and attunement to the conditions of locality and seasons are pushed aside by the global economy. Exacerbating the fragmentation of the world has been the stunning shift from predominant habitation in rural villages and communities to concentration in large cities. In big cities, it becomes easy to assume that we differ from all other species in that we create our own habitat and thereby escape the constraints of nature. Yet it is nature that cleanses water, creates air, decomposes sewage, absorbs garbage, generates electricity and produces food, but in cities these 'ecosystem services' are assumed to be performed by the workings of the economy.¹⁷

Like a species introduced into a new environment free of constraints, we have expanded beyond the capacity of our surroundings to support us. The approach to living in the city which escalated after the industrial revolution, was derived from a model which elevated the urban designer or planner to a position outside of nature, no longer subject to the web of interdependent existence with natural balance, but rather discrete from the natural world and able to manipulate the conditions of a place to suit the numbers who dwell there.¹⁸ Urban living is no longer a response to place in as far as utilising only its footprint to sustain itself. Urban dwelling has evolved in such a manner that urban populations participate in a labour market to provide for themselves and where possible accumulate excesses to insulate themselves against future need. Through this system, citizens insulate themselves against a traditional dependence on one another, (such as those still relied upon in systems observing the obligations of kinship) in favour of a dependence on the modern monetary system set up in support of the division of labour.

¹⁹ In many places, the impact of this has seen an erosion of local networks of relationships, community self sufficiency and reliance. As Orr describes;

¹⁷ Suzuki David *The Sacred Balance* Allen & Unwin 2007 edition Sydney p13

¹⁸ Worster David *The wealth of nature: environmental history and the ecological imagination* Oxford: Oxford University Press, 1993

¹⁹ Zacher Hans 'Traditional solidarity and modern social security harmony or conflict?' in *Between Kinship and the State: social security and Law in Developing Countries*, von Benda-Beckmann F, von Benda Beckmann K, Casino E, Hirtz F, Woodman G.R., and Zacher H. F. (eds)1988 Foris Publications Holland p21

The crisis of sustainability to a great extent results from centralisation and scale operating unfettered by effective public constraints, citizen complaints or private morality. These constraints were eroded as the independent shopkeeper, farmer and small businessman became employees in enterprises over which they exerted no control. If dependence begets venality, as Jefferson once said, it also leads to demoralization and passivity in the face of wrongs.²⁰

By comparison, a lifestyle attuned to the surrounding conditions need not harvest, create or stockpile excesses to be saved, since if the conditions that sustain life are maintained, the setting (and sharing neighbours) can be relied upon to supply one another's needs. As Suzuki describes;

Such a system acknowledges that there is no environment 'out there' that is separate from us. We cannot manage our impact on the environment if we *are* our surroundings. Indigenous people are absolutely correct: we are born of the earth and constructed from the four sacred elements of earth, air, fire and water (Hindus list these four and add a fifth element, space).²¹

In truth we are no more removed from nature than any other creature, even in the midst of a large city. Yet, our modern system for living has overlooked this and recovery of a responsive relationship to place is vital, as the first step in bringing awareness of the impact of our species actions on the resilience of our local environments, and thus cumulatively, the resilience of our global environment. This is a necessity for both the environmental and social balance in urban environments as they are interdependent. Awareness of this is occurring, and yet its reach needs to be broader as there is too much at stake for this awareness to be maintained by only a few. As Orr notes 'civic [re] education can only occur through participation in the neighbourhood, community and workplace decisions. Civic education for the sustainable management of food, energy, water, materials, and waste can only occur if people have a part in these decisions and understand their consequences.'²² If sustainability implies, that we must do more with less, these constraints must be placed within a compelling moral vision. "Humans" in Erazim Kohak's words, "can bear an incredible degree of meaningful deprivation, but only very little meaningless affluence".²³

Resilience and collective ownership

²⁰ Orr David W. 1992 p77 citing Jefferson Thomas, letter to William Charles Jarvis 28th September 1820

²¹ Suzuki David 2007 p17

²² Orr David W. 1992 p77

²³ Orr David W. 1992 p80, quoting Erazim Kohak *The Embers and the Stars* Chicago University Press 1984 p170

One way this is occurring in the city is through sharing resources. Many urban dwellers have surmised that if they aspire to live with smaller individual footprints in densely populated urban centres, then private ownership of everything may not be necessary and that there are material and social benefits from joining collective ownership initiatives. One successful example of this is Go Get Car Share, which demonstrates how much of a difference ordinary people can make through constructive awareness of the impact of their choice in modes of transport.

Go Get Car Share²⁴

Go Get car share is a car sharing business that began in Australia less than a decade ago. It is proving very popular experiencing a 25% increase in members in the first quarter of 2009.²⁵ It offers members the opportunity to rent a car at an hourly rate. The hourly rate depends on a choice of membership plan (determined by frequency of use) and varies from \$4.40/hour to \$11.90/hour inclusive of petrol. There are more than 200 vehicles available for use ranging through 5 different types, from small city runabouts, to utilities and small vans. The cars are located across 155 locations in Sydney, Adelaide, Melbourne & Brisbane, and each has a permanent parking spot or 'pod' where the vehicle must be returned at the end of the rental. The system utilizes an online and phone booking service and a card swipe entry to unlock the vehicle allows the ignition key to remain fixed to, and always inside the vehicle. With thousands of members who, as a result of their membership have either forfeited or reduced their car ownership, the business has created an outstanding working model for turning awareness of unsustainable living practice into a responsive practice of constructive awareness. Their system addresses the issues of excessive consumption caused by the modern reliance on car ownership and resultant fossil fuel emissions related to both car manufacture and fuel use, with a model that offers more sustainable consumption patterns, using a simple system of co-ordination regarding collective ownership of fewer vehicles. Members of

²⁴ For Further details see www.goget.com.au and 'Office Clean up to Cut Waste and Energy' Sydney Morning Herald March 23 2009 and Channel Ten news item on Youtube <http://www.youtube.com/watch?v=EPTT8vYVXro> accessed 11/04/2009 and 'Australians continue to abandon car ownership in favour of cheaper alternatives' March 19 2009 available at news.com.au link: <http://www.news.com.au/business/story/0,27753,25209273-462,00.html> accessed 11/04/2009

²⁵ 'Australians continue to abandon car ownership in favour of cheaper alternatives' March 19 2009 available at news.com.au link: <http://www.news.com.au/business/story/0,27753,25209273-462,00.html> accessed 11/04/2009

the system can feel empowered to utilize the vehicle transport they need, when they need it, whilst sharing the environmental impacts of that consumption across greater efficiencies. Go Get have received numerous awards for initiating such a service including the 2008 Telstra small business award, the City of Sydney's 'Outstanding new innovative business award' (2004), the Sensis Yellow Pages Small Business award (2004), the Australia Post small business award (2004). The Go Get website claims that for every Go Get car, there are seven less cars on the road.²⁶

Rentoid

Another business which has tapped into a similar philosophy of sharing ownership, through a simple system of co-ordination is Melbourne based Rentoid run by Steve Sammartino. Rentoid is a rental website that operates in much the same way as eBay, except that items are available for rent rather than purchase. Rather than increasing resources being put into manufacturing more goods, it offers a portal to co-ordinate the sharing use of those items already produced; its about utilizing what already exists. As Sammartino says "now that we can digitally connect to the internet, how many ladders does Australia really need? Do we really need two million or can we get by with one million?" Its free to join, rentoid take a small (5%) commission of the rental fee, and once the transaction has been approved, the two parties contact each other to arrange pick up or delivery of the item. The website provides the infrastructure so that people can connect. The renter makes money from their 'latent asset', whilst the rentee saves money, since they don't have to purchase the needed item new. Since its inception in July 2007, Rentoid has accumulated almost 5,000 members, with around 10,000 items listed at any one time with camping goods, power tools and audiovisual equipment among the most popular. They claim to have more than 30,000 hits/day to the website which list items available for rental totaling \$70million in value. As Sammartino is quick to point out though, it is not just about a transaction mentality, it is also a forum in which people create and share identities around random items and their use, since the site specializes in the rental of items you may otherwise find hard to access on a rental basis.²⁷

²⁶ <http://www.goget.com.au/how-does-it-work.html> accessed 18/04/2010

²⁷ <http://www.rentoid.com> accessed 18/04/2010

However, the social changes in perception required for engagement in such schemes can still create stumbling blocks. The biggest obstacle hindering the exponential take up of Rentoid's service is the consumer preference for owning rather than loaning goods- in essence renting is the perceived poor cousin. Anecdotal evidence suggests this is true for ownership of many items, including cars, which people often come to perceive as an expression of their identity, hence making collective ownership a more complex issue for such people. Sammartino suggests 'It is about having access to things rather than ownership of them'.²⁸ Indigenous perspectives on ownership embody this emphasis, where within understandings of collective ownership, they distinguish that certain individuals have the authority to speak for the use of an item. As a result, maintaining relationships amongst extended kin is often required to maintain access to the items over which they have authority.²⁹ Is it possible that urban resilience could be strengthened by the network of relatedness one experiences within it, rather than measured by the accumulation of things? If so, what conditions are necessary to mobilize or support the development of such networks of relatedness and co-operation? These first two examples of collective ownership offer more than a response to overconsumption and I speculate that the intangible benefit they offer, in gathering momentum towards finding effective solutions to some of our urban issues, is of significant value, because it empowers individuals to feel they can make a difference, build trust and forge bonds, friendships and associations with others who are also concerned and who are also mobilizing their concern into action.

Stages of Change Model

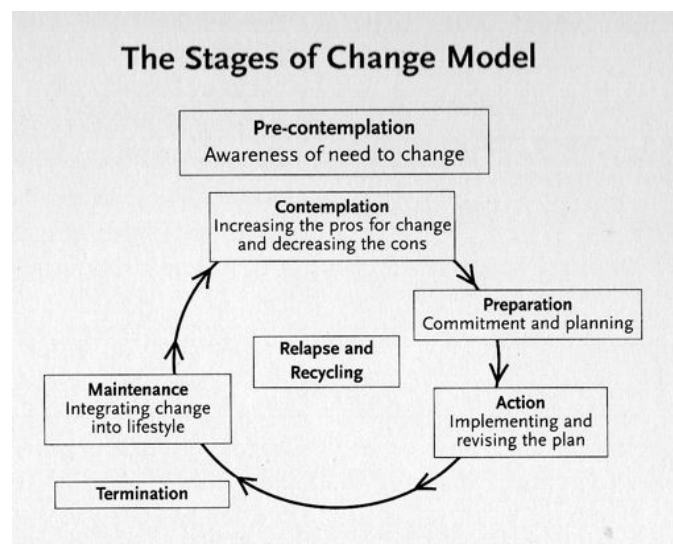
In his 'Transition handbook' Hopkins presents an interesting approach to understanding the psychology of change.³⁰ He discusses the work of Chris Johnstone and his book *Addiction and Change* and the stages of change model. The model has been applied successfully in illuminating social and environmental change work. It is reproduced below, and was originally developed by psychologists Carlo DiClemente and James

²⁸ Tufvesson Angelia Rental Revolution in *G magazine* July 2008 Issue 12 p 10-11

²⁹ For further see Edmonds 'Investment in relatedness over ownership' Chapter 7 p302 in *Metamorphosis of Relatedness: the Place of Aboriginal Agency, Autonomy and Authority in the Roper Region of Northern Australia* ANU PhD thesis 2007

³⁰ Hopkins Rob *The Transition Handbook: From Oil Dependency to Local Resilience* Green Books Devon England 2008 Chapter 6 p84

Proschasks in the early 1980s to assist in understanding addiction. They wanted to map out a framework for understanding change that could also be used by people from varying theoretical backgrounds. The core of the model is a simple (even obvious) idea: change doesn't happen all at once. Rather it occurs in increments or stages. For example someone in the preparation stage might want to change but not see how to. Someone in the contemplation stage may be stuck in ambivalence, where part of them wants to change but another part is not so sure. As Hopkins suggests, the model can be applied to the way we think and act in response to climate change and peak oil, and I present it here as I think it yields interesting insights in addressing how people are mobilized into action with respect to adopting sustainable living practices more generally.



The Stages of Change Model. (After DiClemente 2003)³¹

As Hopkins notes, with any change, movement can be backwards as well as forwards, there may be initial good progress, but then people lose heart and become complacent, leading to a relapse to a former stage. He suggests that is why the maintenance stage of change is important- that we look at how to consolidate gains and keep going in the long term.³² In considering differences in values and priorities with respect to environmental sustainability, this stage is also crucial. When difference precludes agreement and action, sometimes consolidating what common ground there is and taking stock can lead back into contemplation, negotiation and renewed possibility, as

³¹ Reprinted from Hopkins Rob *The Transition Handbook: From Oil Dependency to Local Resilience* Green Books Devon England 2008 p85

³² Hopkins Rob *The Transition Handbook: From Oil Dependency to Local Resilience* Green Books Devon England 2008 p86

opposed to terminating the process of change altogether as a result of encountering difference.

A common idea in environmental campaigning is to deliver information, believing that if people know how harmful things are they will change. As Hopkins notes, you only have to look at a packet of cigarettes to see the limits of this approach.³³ He suggests rather that if we consider the dependence on oil in industrialized countries as an addiction to oil, we quickly find it could be described by the categorized terms of ‘hazardous use’, ‘harmful use’ and ‘dependent use’ as employed in understanding addiction and problematic substance use.

Most commentators agree that changes to industrialized lifestyles are necessary to reduce their impact on the environment, yet they can only occur if we acknowledge our dependence on the current taken for granted system- and begin to address that dependence by seeking alternatives and changing our behaviour accordingly. According to the stages of the model, people participating in the Go Get car share and Rentoid examples are in action and maintenance stages. Since not everyone is at that stage of change, it is helpful to remember the importance and conditions of the stages that lead to and from those.

In *Fostering sustainable Behaviour* Doug McKenzie Mohr presents several approaches to understanding how to mobilize individuals toward behaviour change.³⁴ He presents a strategy for ‘Community based social marketing’ (CBSM) that begins with people identifying what they perceive as the barriers to their transition to more sustainable living behaviours. Then he presents approaches for ‘tooling up’ or identifying ways to overcome or deal with those barriers. With respect to barriers in motivation, he identifies commitment, prompts to remind sustainable action, building community support and creating effective messages as vital to overcoming individual barriers. With respect to commitment, he suggests that people have a strong desire to be seen by others as consistent, and that the major influence on our attitudes and behaviour is not the media, but our contact with other people.³⁵ He adds that simply saying that you

³³ ibid

³⁴ Doug Mackenzie Mohr & William Smith in *Fostering Sustainable Behaviour: An introduction to Community based social marketing* New Society Publishers Canada 1999

³⁵ Mackenzie Mohr & Smith 1999 p95

‘think’ you would volunteer for an organization, give blood or wear a lapel pin, alters your attitudes and increases your likelihood that you will later act in a manner that is consistent with your attitudes.³⁶ Mohr presents several examples and studies where this has been measured.

Simply through committing oneself to something that one values in conversation or in signing a petition, or expressing a willingness to make a stand for an issue, can powerfully alter an individual’s perception of themselves and increase the likelihood of future action consistent with those values. Collective ownership through GoGet and Rentoid is one way individuals can make this step through online associations. Other examples of face to face associations which build common values and a willingness to act for them also nurture the seeds of change potential.

Permablitz in Melbourne

This movement assists in re-attuning to the importance of place and the networks of interdependency on which our survival depends. In busy cities, the garden offers a place to work with our hands, side by side and create something worthwhile and a group who started in Melbourne in 2006 called ‘Permablitz’ are making the most of this opportunity with multiple benefits. As defined by their website³⁷, a Permablitz is an informal gathering involving a day on which a group of at least two people come together to create or add to edible gardens where someone lives, share skills related to permaculture and sustainable living, build community networks and have fun. The name *permablitz* is a contraction of *permaculture* and *blitz*, where a blitz simply means a focused application of energy or a concentrated effort to get something done. As a social enterprise committed to improving the sustainability of our cities and suburbs, the organization use the sustainable design system of permaculture to help communities move away from denial and dependent consumerism to engagement and responsible production. The group’s core focus is helping people sustainably grow food where they live, building healthy communities in the process. As their website states, ‘Rather than

³⁶ Mackenzie Mohr & Smith 1999 p48

³⁷ www.permablitz.net accessed 12/04/2009

depressing people with the bad news, we empower them with the good news - that the solutions are at hand - and get on with having fun rolling them out.’³⁸

Each permablitz is part of a longer process including pre-blitz design visit or visits, prior organisation of materials needed for the blitz, and after the blitz follow up visits to see how people are going with their new gardens. This means that permablitzes stay true to permaculture design, which is always an extended process in which all action is informed by prior observation and reflection. The permablitz network is currently entirely volunteer, and based on the principle of reciprocity. Their website (www.permablitz.net) reports that most people attend blitzes because they are fun and you learn something. However, once a person has been to a few blitzes, those who organize the online permablitz website can assist a keen person to organise one where they live. The website was set up to facilitate others to get permablitzes happening and to document permablitzes to date as a resource for others.

One of the many benefits of the permablitz movement is in the spontaneity and decentralized organization through which it operates. One of the fundamental aspects of deliberative structures for local participation as outlined by Paul Brown,³⁹ is constituted by knowledge and uncertainty. Inside centralized government, they attempt to construct certainty for political reasons. Yet ‘neighbourhood’ agreements within and between civil society groups are the source of critical ecological knowledge. Such groups transfer critical knowledge amongst themselves as they play out their interests, agendas, in which possible dissent occurs and values may clash. Yet throughout this, an enabling process emerges where socially they negotiate towards certainty and in the case of these permablitzes, they produce tangible benefits by utilizing disused or abandoned areas for productive use to feed people and in so doing affirm the difference individuals can make. Through their self organized scheme they create cyclical and ongoing education to spread the word and engage others. As Orr states;

³⁸ www.permablitz.net accessed 12/04/2009

³⁹ *Paul Brown is Head of School of History & Philosophy at UNSW, in his presentation at the regional UNEP conference in Sydney November 27th-28th 2008, he discussed these issues of local participation and deliberative structures. Paul Brown was for seven years Chair of the Community Participation and Review Committee (CPRC), established in the Botany Bay municipality (a southeastern local government area of Sydney). This committee advises government and industry on the management of a particular form of hazardous waste, hexachlorobenzene (HCB), owned by the Australian chemical company Orica. He has published work discussing his experience of the dynamics of social engagement with respect to his involvement with this committee.*

If a commitment to life signifies a general direction for education, students and teachers must be able to read the compass- to understand the world of nature and to develop competence in thinking about natural systems. Commitment or emotional pre-disposition without knowledge is, in Archibald MacLeish's words, rather like "an answer without a question-meaningless" Worse, it is paralyzing, for it creates expectations without providing the means for fulfillment.⁴⁰

A crucially beneficial aspect of permablitzes is their capacity to facilitate opportunities for learning hands on, about natural systems. The dissemination of this knowledge is vital, because for many urban dwellers, maintenance of it has diminished as it has been sidelined through focus on other things. Though many urban dwellers are aware of environmental issues, without the know-how to act in ways to mitigate these issues for themselves their concern risks becoming paralyzing, and worse leaving them feeling disempowered and disengaged. The way permablitzes are structured also means that individuals who need the human labour and the assistance of others to transform their backyard can offer their site as a learning ground for others in return for the assistance. As the website states in one of their core beliefs as a group, 'We know the problems and we have the solutions. It is time to transition not just from denial to awareness, but from awareness to action. Let's go!'⁴¹ This spirit of engaging members of a populous to use their awareness in a constructive way which is activated, is the type of mobilization we need to encourage.

Others participate in similar ways, yet without plugging in to the online network. Pippa Ross in Brunswick, Melbourne offered up her own backyard to create a community garden in which her whole neighbourhood agreed to participate. She described that she 'wouldn't have started a garden on [her] own. [She] needed the support and enthusiasm of a group.'⁴² The group operate on a 'take what you need, when you need it' basis in terms of harvest and their input is loosely co-ordinated in fortnightly working bees, that usually end with a barbecue. City-based community gardens of all types are experiencing a rise in popularity, ranging from self run initiatives- like Pippa Ross', to those on public land funded by the government (eg. Callan Park: Sydney City Farm⁴³ and City of Sydney community gardens) and well- established gardens on government

⁴⁰ Orr David W. 1992 p134

⁴¹ www.permablitz.net accessed 12/04/2009

⁴² Connolly Paul in 'Garden Cities' p18-19 in *Sunday Life* Magazine January 2009.

⁴³ see http://www.sydneycityfarm.org/callan_park/

housing estates (eg. Community Gardens and Neighbourhood Renewal Waterloo Project⁴⁴).

In addition to these ‘tended’ gardens there are also ‘Guerrilla gardeners’ in public parks and nature strips, where the fruits of their labour are public property (eg. Barry Minhinnick’s reclamation of Kings Cross corner⁴⁵). A prominent example of this which has been widely publicized, is the initiative by Michael Mobbs in a Chippendale street in Sydney, where residents have co-ordinated to reclaim their nature strips to grow food. Whilst each of these initiatives would be subject to varying levels of success in terms of agreement in working together, dissent and conflicting agendas, each are vital steps in activating individuals’ capacity, mobilized into action which builds ‘constructive’ awareness from their concerns regarding sustainability.⁴⁶ As reported by Grayson, who wrote the community garden policies for Kogarah & Marickville councils, ‘These gardens allow us to meet our neighbours, which all helps to make a person feel safer in, and more a part of their local community’.⁴⁷

Building social capital and trust

The social benefits of the Community Gardens and Neighbourhood Renewal Waterloo Project are also well documented in bringing together public housing tenants who had previously lived side by side but did not know each other and who, through the community garden project, came to share culinary cultural specialties and foods which contributed to overcoming many of the problematic social and behavioural issues to which residents of the estate had previously been subject.⁴⁸ Provisional forms of trust and as McDonnell describes ‘suspended doubt’⁴⁹ could thus become the glue that allows

⁴⁴ See ‘A Bountiful Harvest: Community Gardens and Neighbourhood Renewal in Waterloo’ Linda Corkery, Bruce Jodd, Linda Bartolomei & Susan Thompson, 2003 Published by UNSW & Department of Housing and City of Sydney community gardens map <http://www.cityofsydney.nsw.gov.au/Environment/documents/CommunityGardensMap.pdf>

⁴⁵ Kirton Merideth ‘The Accidental Gardener’ in *Green: Sustainable Architecture & Landscape Design* Issue 8 Mar-May 2009 p74

⁴⁶ For more see Australian Community Farms and Gardens Network www.communitygarden.org.au

⁴⁷ Connolly Paul in ‘Garden Cities’ p18-19 in *Sunday Life Magazine* January 2009. p18

⁴⁸ ‘A Bountiful Harvest: Community Gardens and Neighbourhood Renewal in Waterloo’ Linda Corkery, Bruce Jodd, Linda Bartolomei & Susan Thompson, 2003 Published by UNSW & Department of Housing

⁴⁹ McDonnell, G., 1997. ‘Scientific and everyday knowledge: trust and the politics of environmental initiatives’ in *Social Studies of Science* 27, 819–863. In these papers McDonnell comments on the work of

conflict to play out and negotiations to take place as knowledge is created through community development processes which manage and allow for conflict and dissent.⁵⁰ As Paul Brown suggests, smart governance would also acknowledge that the centre cannot know everything and it needs the knowledge produced by civil society.⁵¹ When considered in these terms, the question raised for consideration is whether *trust* is in fact more important than knowledge, since knowledge alone cannot facilitate discussion or willing participation through processes of negotiation. Building trust among neighbours and within local communities is a vital and highly beneficial aspect of fostering collaboration and mobilising action. Networks of neighbourly trust and interdependence in turn build local resilience.

Impact of Momentum on Social Resilience & the Importance of Fostering Resilience

In her book *The Unthinkable: Who Survives when Disaster strikes*, Amanda Ripley discusses people's reaction to extreme fear. After covering hundreds of 9/11 stories and Hurricane Katrina stories, Ripley became interested to deconstruct what happened, and found similarities in people's behaviour in lots of disasters. She suggests that resilience is something that can be fostered, learnt. She suggests;

The call in question is for individuals to make an assessment of the risks we face and then develop a strategy to help ourselves, rather than rely on others, should the need arise. "If you speak to disaster experts they only talk about what the government should be doing" says Ripley. "that's a mistake. Regular people can have an enormous impact on their own survival chances. The problem is: people think it won't happen to them and, if it does, they're screwed. It's really lame if you think about it. We take ourselves very seriously in other ways."⁵²

Whilst the need to foster social and environmental sustainability is not currently being prompted by an immediate disaster comparable to the contexts Ripley describes, the

the National Taskforce and the High Temperature Incineration dispute; this work led him to sophisticated analysis of trust and knowledge associated with environmental disputes.

⁵⁰ For further see Edmonds Angelique chapter five *Metamorphosis of Relatedness: the Place of Aboriginal Agency, Autonomy and Authority in the Roper Region of Northern Australia* ANU PhD thesis 2007

⁵¹ Paul Brown presented an outline of some of these ideas at the UNEP conf already cited and he discusses these further in his and Rae Ian's article 'Managing the intractable: Communicative structures for management of hexachlorobenzene and other scheduled wastes' in *Journal of Environmental Management* 90 (2009) 1583–1592. In that article he also references McDonell, G., 1991. Toxic waste management in Australia: why did policy reform fail? *Environment* 33 (6), 11–13. 33–39 and McDonell G (1997) cited above.

⁵² Crampton Robert interview with Amanda Ripley titled 'Staying Alive' Sydney Morning Herald Good Weekend magazine August 9 2008

potential impacts of ‘business as usual’ have been predicted to cause considerable disruption and disaster to our planet.⁵³ One of the issues discussed by George Monbiot in his book *Heat* is that there is an industry of denial.⁵⁴ The temperature on civil society’s attitude appears to be shifting, there is less denial and an increasing awareness that human behaviour in its occupation of the planet has triggered significant imbalance in the earths systems. However, as Ripley describes (for the context of disaster, which I present as also having relevance to this discussion);

“Part of the problem at the moment, is precautionary planning is seen as paranoid, hysterical, neurotic. It needs to be rebranded in a progressive way, as your having a responsibility to take care of yourself”.

“Resilience in general is a great trait to work on. It makes people stronger, healthier, more confident, more connected to their community. [Its helpful to be] proactive- you don’t think about what’s happening, you think about what you are going to do.”

“The brain is magnificent, with something to focus on... it can do amazing things. We accept that you can get better at, say maths, yet survival skills we think we’re just born with or you’re not, and its almost never the case.”⁵⁵

In the study of ecology, fostering diversity is a foundational requirement of ensuring resilience. Understanding the depth and diversity of our interdependence with our natural world may nurture resilience within individuals and collective groups alike. As Ripley discusses at length in her book, small commitments in awareness and behaviour have been known to make a lot of difference. For human lifestyles to become environmentally and socially sustainable it is vital that the responsive relationship with nature is reawakened individually and collectively so that we may develop resilience in responding to change as it occurs. Most importantly resilience and a responsive relationship to nature could be nurtured in children who are the custodians of the future.

⁵³ For a digestible summary of the science see Gore *Al An Inconvenient Truth* Rodale Books 2006. It is acknowledged that the science presented in this film has been contested, however details of that contest are beyond the scope of this paper.

⁵⁴ Monbiot George *Heat* Penguin Allen Land 2006 chapter 2 p20-43

⁵⁵ Crampton Robert interview with Amanda Ripley titled ‘Staying Alive’ Sydney Morning Herald Good Weekend magazine August 9 2008

Educating children and mainstream in ecological literacy

As Dutch anthropologist, filmmaker and art teacher Jan van Boeckel describes;

‘Many people deplore the loss of direct contact with nature. Moreover, this absence might be one of the root causes for the ecological crisis we are experiencing today, and for the mood of indifference that many people feel for it. It is hard to care for something that we no longer perceive as being constitutive to what makes us human. To counter this development, an increasing group of educators thinks that education should facilitate a form of learning that enhances children's sensibility to nature and place, to what Gregory Bateson so aptly described as 'the pattern which connects'.⁵⁶

In his book *Earth in Mind* Orr suggests that our current predicament is the result of inadequate and misdirected education that alienates us from life in the name of human domination.⁵⁷ Thus the way we educate and pass on knowledge about our relationship to the natural world needs to be rethought. As examples of community gardens and reduced consumption through collective ownership initiatives show, education and sharing of knowledge need not be limited to the classroom. Action learning also assists in building individual confidence and resilience and constructive awareness which foster stronger community relationships, and builds community resilience. As Norwegian eco-philosopher (and originator of the ‘Deep Ecology’ movement) Arne Naess has highlighted with respect to the writings of Immanuel Kant.

Inspired by Kant, one may speak of ‘beautiful’ or ‘moral’ action. Moral acts are motivated by acceptance of a moral law, and manifest themselves clearly when acting against inclination. A person acts beautifully when acting benevolently from inclination. Environment is not then something to be felt strange or hostile which we must unfortunately adapt ourselves to, but something valuable which we are inclined to treat with joy and respect, and the overwhelming richness of which we are inclined to use to satisfy our vital needs.⁵⁸

In presenting Deep Ecology as an environmental philosophy, Naess believed that through spiritual or psychological development we can learn to identify with other humans, with animals and plants and even ecosystems. We can learn to see ourselves in these other creatures, and in that way they become part of our being. By identifying with the more-than-human world, we want to protect it; we are not acting against our inclinations. In this sense Naess concurs with many Indigenous peoples’ understanding

⁵⁶ Van Boeckel Jan, ‘Forget your Botany’ in *Resurgence* 226 September/October 2004 published by the Resurgence Trust (Charity)

⁵⁷ Orr David *Earth in Mind: On Education, Environment, and the Human Prospect* Island Press 2004

⁵⁸ Naess Arne, translated and revised by David Rotherberg *Ecology, community, and lifestyle : outline of an ecosophy* Cambridge University Press, 1990 p85

of their relationship to the natural world and with Suzuki, that there is no environment ‘out there’ that is separate from us. We cannot manage our impact on the environment if we *are* our surroundings.⁵⁹

Conclusion

In the opening quote, I drew attention to the fundamental issue of sustainability being that of behaviour change, and this paper has focused on approaching an understanding of mobilization, engagement and participation with respect to sustainable living. The psychological approaches outlined by attention to DiClemente’s ‘Stages of Change model’ and Doug McKenzie-Mohr’s suggested approaches utilizing community based social marketing tools are all contributors to our collective understanding of how we can encourage and foster Sustainable Behaviour. Whilst such initiatives and approaches to understanding are encouraging, I am reminded of Orr’s lengthy discussion on environmental education, in which he says;

a decent environmental studies program could acquaint students with the major issues- the science of ecology and thermodynamics, the social-political-economic –philosophical causes of environmental degradation, and the outlines of sustainable alternatives- and still fail because its graduates were unable to make the leap from “I know” to “I care” to “I’ll do something”.⁶⁰

My own experiences in trying to mobilize action amongst Architecture undergraduates who claim to be concerned for the environment, yet fall short in taking any action concur with Orr’s observation. With respect to organized education in a university setting Orr discusses at length the need for experiential learning, which interacts with nature and offers the opportunity for acquisition of competence with life support systems.⁶¹ Such opportunities for learning are evidenced in permablitzes and community or private gardening activities, as well as the changes in behaviour that may follow from that of reducing consumption and participating, where possible, in collective ownership. As my analysis of the examples has shown, the potential for building social capital and developing trust amongst neighbours and local communities is of significant value in addition to the environmental benefits of these initiatives.

⁵⁹ Suzuki David *The Sacred Balance* Allen & Unwin 2007 (edition) Sydney p17

⁶⁰ Orr David W. 1992 p147

⁶¹ Orr David W. 1999 p147

In *Fostering Sustainable Behaviour*, the call for Community Based Social Marketing suggests that persuasion begins with capturing attention. Without attention, persuasion is impossible. Whilst this approach is constructive, it outlines a rational, analytical and somewhat instrumental approach to ‘getting’ people to act more sustainably. My own speculation is that until people’s hearts are involved, their motivation is often too weak to affect change. To the extent that some of these techniques rely on rationalized (psychological) predictions of human behavior, they appear to lead to logical difficulties: rational analysis to formulate plans for a new society is a quintessentially Enlightenment project. In short, we may fall short in our goals if we answer problems created by a rationalist approach with a duplication of that approach.

Alternatively, the recovery of awareness that we are but a portion of interdependent nature, requires an act of grace, and a willingness to surrender. In the Enlightenment project which separated the mind from the body, the perception of the mind was elevated (from an embodied experience immersed within the human body and natural environment) to a position outside of and able to dominate nature. This epistemological project relied upon separation, analysis and rational thinking to maintain a perceived dominance of nature. If we are to overcome the divide, and recover a sense of our fundamental interdependent relationship with all life, we may find it is *not* a journey of the mind. Rather, through an act of grace, we may surrender to the acknowledgement of our interdependence with all life. This is not a mental abstraction, but an embodied experience, which occurs through an opening of our hearts. When motivated by one’s heart, decisions regarding behaviour are no longer a mental exercise as the result of analysis, rather they are ‘beautiful acts’ as described by Naess. When someone or something you care for (such as a parent, sibling or child) is threatened or in danger, most often we respond immediately on impulse, and not after pause for considering the economic cost.

With respect to the environment that sustains us however, action in the mainstream has stalled largely on economic grounds, with the question ‘What will it cost (me/us) to take action?’

Could we begin to consider this from another perspective and ask ‘Do we value the sustenance of the natural world?’ My aim in this paper concurs with many Indigenous

teachings and Suzuki to suggest, this question really asks if we value ourselves because we are the natural world and if it does not survive and flourish, nor do we.

Bibliography

- Agyeman Julian (2007) 'Environmental Justice & Sustainability' chapter 11 in *Handbook of Sustainable Development* edited by Giles Atkinson, Simon Dietz, Eric Neumayer. (Pub) Cheltenham Edward Elgar
- Barber Benjamin (1984) *Strong Democracy*. Berkley: University of California Press
- Brand Peter and Thomas Michael J (2005) *Urban Environmentalism: Global Change and mediation of local Conflict*. England: Routledge.
- Carson Rachel (1963) *Silent Spring* London: Hamilton.
- Chakrabarty Dipesh (2009) 'The Climate of History: Four theses' in *Critical Inquirer* 35 (Winter): 222
- Corkery Linda, Judd Bruce, Bartolomei Linda & Thompson Susan (2003) '*A Bountiful Harvest: Community Gardens and Neighbourhood Renewal in Waterloo*' Published by UNSW & Department of Housing
- Cronon William (1996) *Uncommon Ground: Rethinking the Human Place in Nature*. New York: Norton and Co.
- Diamond Jared Collapse (2005) *How societies choose to fail or succeed* Array.
- Diamond Jared (1997) *Guns, Germs & Steel: The fates of Human Societies*. New York: W.W. Norton & Co.
- Dodson Gray Elizabeth (1994) 'Come Inside the Circle of Creation: The Ethic of Attunement' in Ferre, *Ethics and environmental policy: theory meets practice*. Athens: University of Georgia Press.
- Edmonds Angelique (2007) *Metamorphosis of Relatedness: the Place of Aboriginal Agency, Autonomy and Authority in the Roper Region of Northern Australia* ANU PhD thesis.
- Ehrlich Paul (1990) *The Population Explosion*. Simon & Schuster: Australia.
- Ehrlich Paul (1998) *Betrayal of Science and reason: How anti-environmental rhetoric threatens our future*. Island Press.
- Erazim Kohak (1984) *The Embers and the Stars*. Chicago: University Press.
- Gore Al (2006) *An Inconvenient Truth*. Rodale Books.
- Hayward Tim (1995) *Ecological Thought*. Polity Press.
- Hopkins Rob (2008) *The Transition Handbook: From Oil Dependency to Local Resilience*. England: Green Books Devon.
- Kellert S.R. (1999) 'Ecological Challenge, Human Values of Nature, and Sustainability in the Built Environment' in *Reshaping the Built Environment: Ecology, Ethics and Economics* Island press.

- Kirton Merideth (2009) 'The Accidental Gardner' in *Green: Sustainable Architecture & Landscape Design*, 8 (Mar-May).
- Kohr Leopold (1979) *The Breakdown of Men & Nations*. New York: E.P.Dutton.
- Lopez Barry (1997) 'A Literature of Place' essay is based in part upon a presentation by the author at the Salamanca Writers Festival in Hobart, Tasmania, in March 1996. This essay first appeared in this form in the University of Portland's *Portland Magazine*, Summer
http://arts.envirolink.org/literary_arts/BarryLopez_LitofPlace.html (Accessed November 2005)
- Lowenthal, David (2001) 'Environmental History: From Genesis to Apocalypse'. In: *History Today*, 51 (4): 36-44.
- Mackenzie Mohr Doug & Smith William (1999) *Fostering Sustainable Behaviour: An introduction to Community based social marketing*. Canada: New Society Publishers.
- McDaniel Carl N. (2005) *Wisdom for a Livable Planet*. Texas: Trinity University Press.
- McDonell, G. (1997) 'Scientific and everyday knowledge: trust and the politics of environmental initiatives'. In: *Social Studies of Science* 27: 819-863.
- McHarg Ian (1992) *Design with Nature*. Wiley.
- Monbiot George (2006) *Heat*. Penguin Allen Land.
- Naess Arne (1990) *Ecology, community, and lifestyle : outline of an Ecosophy*. Cambridge University Press.
- Orr David (2002) Conservation in Context, Four Challenges of Sustainability. In *Conservation Biology* 16, (6).
- Orr David (2004) *Earth in Mind: On Education, Environment, and the Human Prospect*. Island Press.
- Orr David W. (1992) *Ecological Literacy: Education and the Transition to a Postmodern World*. State University of New York Press.
- Redclift Michael (1996) *Wasted: Counting the Costs of Global Consumption*. Earthscan.
- Ruta Giovanni & Hamilton Kirk (2007) The Capital Approach to Sustainability. In *Handbook for Sustainable Development* edited by Giles Atkinson, Simon Dietz, Eric Neumayer. (Pub) Cheltenham: Edward Elgar.
- Salt D. & Reid W.V. (2006) *Resilience thinking : sustaining ecosystems and people in a changing world*. Island Press.
- Schumacher E F (1974) *Small is Beautiful: Economics as if People Mattered*. New York: Harper Torch books.
- Scott James C. (1998) *Seeing Like a State: How certain schemes to improve the human condition have failed*. Yale University Press.
- Stegall Nathan (2006) "Designing for Sustainability: a philosophy for ecologically intentional design". In: *Design Issues* 22, (2): 56-63
- Suzuki David (2007) *The Sacred Balance*. Sydney: Allen & Unwin.
- Tufvesson Angelia (2008) Rental Revolution. In: *G magazine*. 12, (July): 0-11.

- Van Boeckel Jan (2004) 'Forget your Botany'. In: *Resurgence*. 226 (September/October).
- Wiseman Alan (2007) *The World Without Us*. Thomas Dunne Books St Martin's Press.
- Worster David (1993) *The wealth of nature: environmental history and the ecological imagination*. Oxford: Oxford University Press.
- Worster Donald (1988) *The ends of the Earth. Essays in modern environmental history*. Cambridge/New York: Cambridge University Press.
- von Benda-Beckmann F, von Benda Beckmann K, Casino E, Hirtz F, Woodman G.R., and Zacher H. F. (eds) (1988) 'Traditional solidarity and modern social security harmony or conflict?'. In: *Between Kinship and the State; social security and Law in Developing Countries*, Holland: Foris Publications.

Websites consulted

www.goget.com.au

<http://www.youtube.com/watch?v=EPTT8vYVXro>

<http://www.news.com.au/business/story/0,27753,25209273-462,00.html>

<http://www.news.com.au/business/story/0,27753,25209273-462,00.html>

www.communitygarden.org.au

<http://www.cityofsydney.nsw.gov.au/Environment/documents/CommunityGardensMap.pdf>