To the universe, it's the only one we have.

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LIST OF CONTRIBUTORS

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Roslyn Arnold is an Honorary Professor in the Faculty of Education at the University of Sydney. She was Dean of Education at the University of Tasmania and Pro-Dean and Head of School at the University of Sydney. Her research interests are writing development, arts education, teacher education, leadership development and empathic intelligence – a theory of teaching and learning that she has developed to explain the qualities of exceptional educators. She has delivered keynote addresses on her research interests in Australia, the United States, England, Canada and Singapore. Her books include *Writing Development: Magic in the Brain* (Open University 1992) and *Empathic Intelligence: Teaching, Learning, Relating* (UNSW Press 2005).

Jasmin Ball

Jasmin Ball was raised in Melbourne, Australia. She fell in love with nature at a young age and has always experienced a strong sense of connection to special childhood places. At the age of six she adopted a rock and kept it as a pet, much to the chagrin of her parents! It was this desire for relationship, place-connection, magic and fun that has motivated her to harness diverse and often unexpected opportunities to experience life at its fullest. Jasmin has over ten years experience teaching sustainable living and change in schools, universities, outdoor settings and corporations. With a background in teaching and a master's in social ecology, Jasmin has also lectured and tutored in Education for Sustainability for the University of Western Sydney.

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For most of that time he was Dean of Agriculture and Rural Development and Professor of Systemic Development. Upon his retirement from that university he was awarded Professor Emeritus status. He has been a Visiting Scholar/Professor and a consultant to systemic development projects in more than two dozen countries across five continents. He has published more than 200 journal articles, book chapters, and keynote conference papers. He is a member of the editorial boards of three international journals.

Barry Bignell

Barry Bignell studied music at the Royal Military School of Music (UK). He studied conducting at the Royal Academy of Music, and was awarded the Director's Prize for conducting. Barry was subsequently Director of the Australian Army Band, Melbourne. Barry also studied with the Berlin Philharmonic Orchestra and the Deutsche Oper, and subsequently pursued a career as a conductor for orchestras, choirs and windbands. He has had a parallel career in education and was Head of Postgraduate Studies in music at the Victorian College of the Arts and Music, University of Melbourne. He has lectured widely on musicality and its social and psycho-spiritual implications. He is currently preparing a book on that topic. Barry has a master's degree in education from the University of Melbourne and a PhD in social ecology from the University of Western Sydney.

Carol Birrell

Carol is an artist, writer and academic exploring the interaction between an indigenous and Western sense of place. Her 2007 PhD thesis is titled *Meeting Country: Deep Engagement with Place and Indigenous Culture*. She is currently teaching social ecology at the University of Western Sydney and Aboriginal education at the University of Wollongong. She has been working with a land-based arts practice for the last 12 years called 'ecopoiesis', which draws together movement, painting, photography, environmental sculpture and poetry as a base for ecological narratives and exploring our ecological identity. Carol has strong long-term connections with Yuin (south coast NSW) and Worrorra (west Kimberley) indigenous communities.

John Broomfield

Born in New Zealand, John did a doctorate at the Australian National University. His distinguished academic career includes fellowships at MIT, the Indian Institute of Advanced Studies and the ANU; and service as Professor of Asian and Comparative History at the University of Michigan, and as President of the California Institute of Integral Studies, San Francisco. He brings a wealth of experience in cultures around the world, including study with Native American, Tibetan Buddhist, Hindu, Balinese, Maori and Aboriginal Australian teachers. His most recent book is *Other Ways of Knowing: Recharting Our Future with Ageless Wisdom* (Inner Traditions 1997).

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John Cameron

Dr John Cameron worked as a geologist and green economist before spending fifteen years as a Senior Lecturer in Social Ecology at the University of Western Sydney, teaching courses on Sense of Place and coordinating the research programs. In 2005 he and his partner Vicki King moved to Bruny Island in Tasmania, where they have undertaken a land regeneration project on their fifty-five acres at 'Blackstone'. He is an Honorary Associate of the School of Philosophy at the University of Tasmania and he co-founded the Bruny Island Environment Network. John was editor of the book *Changing Places: Re-Imagining Australia* (Longueville 2003), which included contributions by 25 of Australia's leading sense-of-place researchers. His recent essays on his experiences at 'Blackstone' have been published in *Environmental and Architectural Phenomenology*.

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Graeme Frauenfelder

Graeme Frauenfelder is a graduate of social ecology at the University of Western Sydney where he uses experiential learning practices to teach creativity, transformation, diversity and wellbeing. His involvement with projects in Asia, Africa and

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Susanne Gannon is passionate about writing in and out of academia. She lives in the Blue Mountains west of Sydney, Australia, and is an Associate Professor in the School of Education at the University of Western Sydney. Susanne was a high school teacher prior to taking up an academic position. She is a co-author of *Place, Pedagogy, Change* (Sense Publishers 2011), *Deleuze and Collaborative Writing* (Peter Lang 2011), *Pedagogical Encounters* (Peter Lang 2009), *Charged with Meaning: Reviewing English* (Wakefield Press 2009) and *Doing Collective Biography* (Open University Press/ McGraw Hill 2006); and has contributed sole and co-authored chapters to the *Sage Handbook of Feminist Research: Theory and Praxis* (Sage 2007 and 2011), *Theory and Methods in Social Research* (Sage 2005, 2011), *Writing Qualitative Research on Practice* (Sense Publishers 2009) and *Poetic Inquiry: Vibrant Voices in the Social Sciences* (Sense Publishers 2009).

Robin Grille

Robin Grille is a father, psychologist in private practice and a parenting educator. His articles on parenting and child development have been widely published and translated in Australia and overseas. Robin's first book, *Parenting for a Peaceful World* (Longueville Media 2005), has received international acclaim and led to speaking engagements around Australia, USA and New Zealand. His second book, *Heart to Heart Parenting* (2008), is published by ABC Books. Robin's work is animated by his belief that humanity's future is largely dependent on the way we collectively relate to our children. http://www.our-emotional-health.com

Christy Hartlage

Christy Hartlage is a mother of two, an educator and a food lover. She has a strong belief in the ritual, celebratory power of food. Christy has pursued her interest in food, activism and cultural change through study in the USA, New Zealand and Australia. Whilst in New Zealand Christy grew herbal medicines and played a role in local and national environmental movements, most particularly the Royal Commission of Inquiry into Genetic Modification. Her current preoccupation with parenting has led her to an interest in constructing opportunities for supported care for mothers and new babies. Christy has written for a variety of popular and academic media, most recently a chapter in *Rituals Aotearoa* (in press).

Stuart B. Hill

Stuart is Foundation Chair of Social Ecology at the University of Western Sydney (now retired). His PhD was one of the first whole ecosystem studies to examine community and energy relationships and he received awards for Best PhD Thesis and Best PhD Student. He has published over 350 papers and reports. His books include *Ecological Pioneers* (with Martin Mulligan; Cambridge 2001) and *Learning for Sustainable Living* (with Werner Sattmann-Frese; Lulu 2008). He has worked in development projects across the world. His work in the Seychelles to make a coralline island self-sufficient in food and energy is particularly significant. His background in chemical engineering, ecology, soil biology, entomology, agriculture, psychotherapy, education, policy development and international development, and his experience of working with transformative change, has enabled him to be an effective facilitator in complex situations that demand collaboration across difference and a long-term co-evolutionary approach to situation improvement.

Sally Mackinnon

Sally MacKinnon has been involved in the environment and sustainability movements for over 20 years as an educator, communicator, storyteller and community volunteer. Sally contributed to the establishment of the Ethos Foundation in 2005, and her work focuses on program design and facilitation; research and writing; and participatory community engagement particularly in the areas of Local Living Economy, and community resilience and prosperity. Sally's first book, *Expanding Green Strategies: Creating Change Through Negotiation*, was published in late 2009, and in 2010 her poetry formed part of the group art exhibition 'My Black Heart' at the Scenic Rim Regional Gallery.

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Kathryn McCabe is a senior facilitator and national program coordinator with OzGREEN. Kathryn works with businesses, schools, community groups and indigenous communities. She has lectured on sustainability education at the University of Western Sydney and presents at conferences on personal wellbeing, systems thinking and change. Kathryn applies a multidisciplinary approach of social ecology, science, applied physics, drama, therapy and education to her work for personal and cultural transformations.

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Jack has been working in the field of holistic education for over 30 years. He is author/editor of more than a dozen books on holistic learning and contemplative practices in education, which include *Education and the Soul* (State University of New York Press 2000), *The Holistic Curriculum* (OISE Press 1996) and *Educating for Wisdom and Compassion* (Corwin Press 2005). The *Holistic Curriculum* has provided the framework for the curriculum at the Whole Child School in Toronto. Jack has worked with holistic educators in Japan and Korea and has been visiting professor at two

universities in Japan. He recently was one of twenty-four educators invited to Bhutan to help that country develop their educational system so that it supports the country's goal of Gross National Happiness. He teaches courses on holistic education and spirituality education for graduate students and students in Initial Teacher Education at the Ontario Institute for Studies in Education at the University of Toronto.

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Martin is the Director of the Globalism Research Centre at the Royal Melbourne Institute of Technology University in Melbourne where he specializes in strategies for the sustainability of local communities in the context of global change. From 1993 to 2003 he was a lecturer in the social ecology program at the University of Western Sydney where he taught subjects related to ecological thinking and environmental sociology. During this time he worked with Stuart Hill to produce the book *Ecological Pioneers: A Social History of Australian Ecological Thought and Action* (Cambridge 2001). He also worked with William Adams at Cambridge University to produce an edited volume called *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era* (Earthscan 2003).

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Thomas William Nielsen

Thomas William Nielsen is an assistant professor at the University of Canberra, Australia. A member of the National Values Education Project Advisory Committee, he has served in several of the Australian Government values education projects. He is program leader of the Imagination and Education Research Group, University of Canberra branch, and has received several teaching awards, including the 2008 Australian Learning and Teaching Council Citation for Outstanding Contributions to Student Learning. Dr Nielsen advocates a 'Curriculum of Giving', his research showing that giving and service to others creates unparalleled wellbeing and resilience in students – something much needed in a Western world with rising depression and suicide rates.

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Edmund O'Sullivan is a Professor of Education at the Ontario Institute for Studies in Education at the University of Toronto. He is Director of the Transformative Learning Centre that does both research and graduate programs on ecological issues that emphasizes a global-planetary vision combining ecological literacy, social justice and human rights concerns, diversity education that deals with issues of race, gender, class, sexual orientation and ableism. He is the author of eight books and has written over a hundred articles, chapters in books and refereed journals. His latest books are *Critical Psychology and Critical Pedagogy* (University of Toronto 1990) and *Transformative Learning: Building Educational Vision for the 21st Century* (Zed Books 1999).

David Russell

David is a psychologist and psychodynamic psychotherapist in private practice (East Sydney). He also holds the position of Associate Professor (Adjunct) in the School of Psychology at the University of Western Sydney. He joined The Hawkesbury Agricultural College as a lecture in organizational psychology in 1978 and taught in an adult education program, which, after a few years evolved into a set of programs in social ecology. In the year 2000, at what is now the University of Western Sydney, a group of interested faculty established a master's degree in Analytical Psychology (a course work program based on the works of Carl Jung and the post-Jungians). He is currently president of the Sydney Jung Society.

John Seed

John is founder of the Rainforest Information Centre. Since 1979 he has worked for the protection of rainforests worldwide for which he was awarded an Order of Australia Medal in 1995. He has created numerous projects protecting rainforests in South America, Asia and the Pacific through providing benign and sustainable development projects for their indigenous inhabitants tied to the protection of their forests. He has written and lectured extensively on deep ecology and co-authored *Thinking Like a Mountain: Towards a Council of All Beings* (New Society Publishers 1988). For over 25 years he has lectured on eco-philosophy and conducted experiential deep ecology workshops around the world.

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Dr Ben-Zion Weiss is a community educator in social ecology, meditation, yoga, drama, English for Speakers of Other Languages, cross-cultural conflict and non-violence training. He lectures and tutors at the University of Western Sydney, consults for the New South Wales Department of Education and Training Multicultural Programs in Cooling Conflicts and other intercultural programs. His PhD research is on anti-racism drama education and an ecology of culture. He presents at conferences; facilitates workshops for youth workers, teachers and

community workers; leads Dances of Universal Peace; and facilitates dialogues in spiritual ecology. He has completed a draft of a book based on his thesis and has written chapters and papers for other publications.

James Whelan

James lives in Newcastle, New South Wales in the Worimi nation. His commitment to community action for social and environmental justice has drawn him to work in the community sector and in research and higher education. James has worked with non-government, community and environment groups. James has worked with several Australian universities. He was Theme Leader for the Coastal CRC's Citizen Science research program, has published on participatory democracy and social movements, and has spoken at international conferences. James' community and academic worlds merge in his work as director of the Change Agency, which provides education, training, facilitation and research support for social change groups in Australia and the Pacific.

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Peter Willis is a Senior Lecturer in adult learning and education at the University of South Australia. He pioneered phenomenological approaches in arts-based research in his book *Inviting Learning: An Exhibition of Risk and Enrichment in Adult Education Practice* (NIACE 2002). His main research areas concern transformative, 'second chance' and 'resistant' learning among adults, the power of the imagination in learning, and relationships between religion, spirituality and civil society. Recent edited publications include *Pedagogies of the Imagination* (Springer 2008) (with Leonard), *Towards Re-Enchantment: Education, Imagination and the Getting of Wisdom* (Post Pressed 2005) (with Heywood, McCann and Neville*)* and *Wisdom, Spirituality and the Aesthetic* (Post Pressed 2009) (with Leonard, Hodge and Morrison).

David Wright

David is co-ordinator of Social Ecology programs at the University of Western Sydney. He is a past Head of Performance in the School of Contemporary Arts and Academic Advisor to the Department of Maori Performing Arts in Te Wananga o Aotearoa (New Zealand). David has a background in writing for performance. He has published work in a variety of styles, from creative fiction to eco-philosophy. This work has appeared in books and journals in the fields of literary fiction, applied drama, drama education, ecosophy, sense of place, eco-politics, reflective practice, imagination, cross-cultural arts practice, and higher education.

Ainslie Yardley

Ainslie is a researcher and associate member of Social Justice and Social Change Research at the University of Western Sydney. She is a novelist, theatre artist and multi-media essayist. Her work in community has included youth theatre

productions and projects with refugee claimants from many areas of conflict throughout the world. She has worked with the Australian AIDS Memorial QUILT Project, the Bosnian Community Choir in Brisbane and on multimedia projects in the disability and mental health sectors. Ainslie has lectured in cultural ecology and production management. Her research practice and academic publications incorporate new methodologies and multidisciplinary approaches including embodied creativity and narrative theory.

ACKNOWLEDGEMENTS

INTRODUCTION
The emerging field of Social Ecology

David Wright and Stuart B. Hill[1]

We cannot know the future, but we can dare to imagine. Let us compare two contrasting scenarios. It is the year 3000, and the turn of the century is being celebrated.

In the first scenario, which confirms our worst fears, it is a severely limited event, in every sense. Only a small area of the Earth is habitable by humans, who are now a minor species on the planet, surviving much as some of the endangered species – such as the orang-utan and gorilla – are today. The survivors did eventually learn how to live sustainably, but it was too late; and 'survival of the fittest' inevitably eliminated most members of our species, together with most other species that shared our environmental requirements. It is a sad sight, but they are, nevertheless, celebrating their survival, while mourning their past and maintaining hope for the future.

In the second scenario celebrations are taking place in relatively small, largely locally self-reliant communities across the planet. These mutually supportive societies are markedly different from our own. Like the survivors in the first scenario, they are the products of intense psychosocial evolution; but the difference is that they embraced the necessary changes much earlier than did those in the first scenario. Despite the apparent 'good life' being lived by the privileged at the turn of the previous century, they recognised that this was ethically unjust and unsustainable. Perhaps most profoundly they realised that their obsession with growth in production and consumption, and neglect of system maintenance – at every level, from person to planet – was already resulting in significant degradation and system breakdown; and, if allowed to continue, that this would result in the extinction of their species. So, they set about changing everything: from their personal lifestyles to their political and economic systems, and the nature of their relationships with one another and the environment.

The details of the changes involved will, we hope, one day be written. What we can confidently say now is that this would have involved profound changes in their values; and the development and adoption of frameworks for understanding, designing, planning, relating, decision making and acting that are supportive of the well-being of all, and of all life-enabling processes. Because these processes are primarily ecological, and change involves psychological and psychosocial

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transformation, these are the areas where their learning and development would have been most intense.

Evidence of such thinking can be found in all areas of endeavour; and it is interesting to us that a significant number of these pioneer thinkers, who advocated applying ecological understanding to the design and management of human systems, used the term 'social ecology' (SE) to label their approach. This is the framework and approach that we are advocating and that is being explored in this collection of essays.

The pioneers who used this term included the architect and town planner Erwin Gutkind (1953), evolutionary biologist Sir Julian Huxley (1962 talk, published 1964), ecoanarchist and ecolibertarian Murray Bookchin (1964; at that time he wrote under the pen name Lewis Herber; in the mid-1990s Bookchin abandoned anarchism and proposed 'communalism' as his approach), social scientist Mattei Dogan (who in 1970 established and chaired the International Sociological Association 'Research Committee on Social Ecology'; Dogan and Stein, 1974), psychologists Fred Emery and Eric Trist (1973; this was while they were at the Tavistock Institute for Social Research in London), and behavioural scientist Martin Large (1981), who, together with Bookchin, influenced our use of the term at Hawkesbury.

John Clark (1997) has noted that since the late 1800s the ground was being prepared for the development of social ecology by those who were reflecting on the relationships between human societies and nature. Most important among these were French geographer Elisée Reclus (1830–1905), Scottish botanist and social thinker Patrick Geddes (1854–1932), his student American historian and social theorist Lewis Mumford (1895–1992), communitarian philosopher Martin Buber (1878–1965), and anarchist geographer Peter Kropotkin (1842–1921), who championed mutual aid, political and economic decentralisation, human-scaled production, and communitarian values; and who was a major influence on the work of Murray Bookchin.

There were also many important pioneers who were endeavouring to apply ecological understanding to a diverse range of fields. These included particularly sociologists Robert Park, Ernst Burgess and their colleagues at the Chicago School of Sociology (e.g. Park and Burgess 1921), which was sometimes referred to as the 'Ecology School'. Some of the other pioneers are referred to in the following chapters.

At least of equal importance to the development of social ecology thinking have been the many other pioneers who contributed to its foundations. Of particular importance was the development of an 'ecological epistemology' by Gregory Bateson (1972) in his book *Steps to an Ecology of Mind*. Bateson, along with J.J. Gibson and his book *The Ecological Approach to Visual Perception* (1979, republished 1986), drew attention away from an objective focus upon entities to an examination of the subject's relationship to the object, and in doing so were early contributors to what O'Sullivan (1999) called a reconstructive postmodern vision.

Arguably, the most influential of social ecology theorists has been Murray Bookchin. Bookchin was a prolific writer and organiser, who viewed social

ecology as a political action as much as a form of understanding. His legacy lives on in the Vermont-based Institute of Social Ecology (which he founded with Daniel Chodorkoff in 1974; it was incorporated in 1981), his own writing and the life and writing of many who have been influenced by him. Bookchin settled on the term 'social ecology' as a response to the failure to deliver egalitarian social systems in a rapidly industrialising USA (associated also with a critique of socialist models on offer), and early intimations of the social and ecological consequences of that industrialisation. He writes,

> When I first began to use the rarely employed term 'social ecology' … I emphasized that the *idea* of dominating nature has its origins in the very *real* domination of human by human – that is, in hierarchy. These status groups, I insisted could *continue to exist even if economic classes were abolished.*
>
> Secondly, hierarchy had to be abolished by *institutional* changes that were no less profound and far reaching than those needed to abolish classes. This placed 'ecology' on an entirely new level of inquiry and praxis … Social ecology was concerned with the most intimate relations between human beings and the organic world around them. Social ecology, in effect, gave ecology a sharp revolutionary and political edge. In other words, we were obliged to seek changes not only in the objective realm of economic relations but also in the subjective realm of cultural, ethical, aesthetic, personal, and psychological areas of inquiry.
>
> (Bookchin 2002)

This identification of social ecology as an inquiry into subjectivity and relationships is in accord with the approach of Emery and Trist who published *Towards a Social Ecology* in 1973. They say they were led to social ecology by 'our concern with what was happening to organisations, considered as open socio-technical systems, as they encountered greater complexity and a faster change-rate' (1973: xii). This required a 'more thorough examination than we have made so far of environmental relations and a consideration of the character of environment itself' (ibid.: xii). Thus, environment is understood through social relationships and knowledge systems, and any change in relation to the environment is dependent on changes in social relationships and social knowledge systems.

Social ecology at the University of Western Sydney

'Social Ecology' in Australia had its origins at Hawkesbury Agricultural College (HAC) (later the University of Western Sydney: Hawkesbury; and later again the University of Western Sydney, Richmond campus). HAC was an elite agricultural college, on the north-western fringe of Sydney. It opened in 1891 and was, for many years, a conservative, male-dominated, finishing school for young farmers. Its education took the form of inculcation into the agricultural practices and social understandings of rural Australia. The urbanisation of Australia and

the systematic decline in secure farm incomes, leading to a growing disinterest in careers on the land, contributed to the decline of HAC, and thence its easy absorption into the multi-campus University of Western Sydney (UWS), an institution with no historical association with agriculture, other than the Hawkesbury programs.

Within HAC, however, there were some uniquely interesting combinations of staff. Many of these remained into the early years of University of Western Sydney: Hawkesbury. Central within this was an interest in 'systems agriculture', and a funded Chair held by Richard Bawden. Bawden's leadership of the systems agriculture group, influenced by his readings of Checkland (1981) and the 'Open Systems' group at the Open University UK, laid the ground for the application of a systemic approach to learning and research. This 'Hawkesbury approach' grew out of awareness that different forms of learning are acquired as a consequence of different systemic relationships. Through this perspective, learning became much more than formally acquired knowledge. In keeping with the assumptions of contemporary andragogy, learning was regarded as self-directed, experiential, relevant and applied (Knowles 1984; Brookfield 1995): a process, rather than a content-based approach, that builds on the specific needs of individuals and communities. Accordingly, Bawden and Packham (1991) claimed a 'brand new and controversial research tradition where the emphasis is not on enquiry into systems as real entities, but as figments of the imagination of people, which help them think about real issues'.

Considerations on the personal and community relationships that sustain agriculture led to an initial postgraduate degree in Social Communication (1982), under the leadership of Graham Bird. This attracted a wide range of students: far beyond the agricultural students generally drawn to HAC. The name change to 'Social Ecology' occurred in 1987, after UWS Hawkesbury lecturer John Field had returned from a meeting with Martin Large in the UK. Large had been inspired to use this term through exposure to the work of Emery and Trist at the Tavistock Institute. Some of the staff were also familiar with the earlier use of the term by Murray Bookchin.

The methodology and structure of all courses taught in Social Ecology promoted personal understanding, which was applied to locales, practices and fields of knowledge with which the learner was directly concerned. It emphasised the centrality of relationships, and the importance of considered reflection in the construction of sustainable knowledge systems. It encouraged learning through participation and promoted inquiry through participatory action research (Reason and Bradbury 2001).

Significant early – often informal and unacknowledged – leadership was provided by women members of staff, in particular Marilyn McCutcheon, Chris Winneke and Judy Pinn. Through a focus on feminist epistemologies, experiential and process-based perspectives on learning, they contributed to the moulding of the personalised approach that made it possible for Social Ecology to be, for many years, the pre-eminent site of research training in UWS.

This is not to suggest that the Social Ecology staff group was a unified and uniquely focused one. Not only did (and do) core interests differ, but also personal and social politics contributed to what was sometimes a disrupted and disruptive learning space. At various times, sometimes in association with one of a series of all too frequent university restructures, the staff group was fractured and some left, sometimes feeling bitterly undervalued. Social Ecology has not been an easy site to inhabit.

What is social ecology?

In 1994 David Russell responded to the all too frequent question, 'what is Social Ecology', with the following.

> Social ecology is … a way of integrating the practice of science, the use of technology, and the expression of human values. It draws from any 'body of knowledge' in its pursuit of designing activities that result in self-respecting, sensitive and social behaviours, which show an awareness of social and ecological responsibilities.
>
> (Russell 1994: 148)

Stuart Hill, Foundation Chair of Social Ecology, in the opening chapter of this book provides what he calls a 'very personal account of social ecology'. He describes it as 'like finding home', partly enabled by 'our version of social ecology's integration of the personal, social, environmental and "spiritual/unknown" in most of its teaching and research', and this is reflected in the definition he provides in his chapter.

> I was also attracted by its emphasis on experiential learning, participatory action research and other qualitative methodologies, its recognition of the importance of context, and its acknowledgment of diverse ways of knowing (including women's and Aboriginal ways), the importance of diversity and of learning to collaborate across difference, of working for equity and social justice, particularly in relation to issues of power, gender and race, and of learning how to work with and design complex mutualistic systems, recognising chaos as an important precondition for creativity, development and co-evolution, and not something to be quickly controlled and simplified.

It is worth noting that it is the activity of social ecology, a way of imagining, integrating and designing, rather than any academic field or sub-field that both Russell and Hill prioritise here.

In 1999, another staff member, Brendon Stewart, did try to identify Social Ecology as an academic domain. He positioned it, reflecting his interest in Jungian/archetypal psychology, as integrating 'a "sense of place", home making, "imagination in action", community and organisational theory, the Gaia hypothesis (anima

mundi), contemporary systems theory and a biology that favours symbiosis as the coherent and organising function of life' (1999: 4). At first glance this is a disparate bundle. Common ground can be found, however, in process, and the process is overwhelmingly situated in imagination, interpretation and representation. Metaphor rather than fact is to the fore: biology and culture interconnect through story, feelings are embraced and mystery is welcome.

With the election of a conservative government in Australia in 1996, universities were subjected to increasing ideological and budgetary constraints; and holistic and transdisciplinary areas such as social ecology were predictably marginalised. Reflecting on this time, Newfield (2008: 15) observed that 'the university's cultural missions have declined at the same time as leaders in politics, economics and the media have lost much of their capacity to understand the world in non-economic terms.' A major outcome for our group was that in 1998, in response to a requirement to amalgamate with other compatible units, we joined with the School of Lifelong Learning and Educational Change to form the new School of Social Ecology and Lifelong Learning; and after a further forced amalgamation in 2005 we became part of the much larger School of Education.

Although this has brought new challenges – as a small unit within a larger school – it has also opened up new opportunities. Postgraduate students in our Master of Education (Social Ecology) degree now share foundational studies with colleagues studying Educational Leadership and Special Education. They undertake units in 'Transformative Learning', 'Transformative Leadership' and 'Researching Practice', as well as 'Applied Imagination', 'Ecopsychology and Cultural Change', 'Environmental Education and Advocacy' and 'Researching Social Ecology'. Emerging synergies amongst students and across courses have opened up new pathways to more effectively enable meaningful personal, professional, social and environmental change.

At the undergraduate level, our previous degrees in Social Ecology, which at their peak had only 40 students, have been replaced by three Social Ecology units that each year are taken by hundreds of students as part of their Education Studies Major. Through their exposure to 'Learning and Creativity', 'Education and Transformation' and 'Education for Sustainability', thousands of future school-teachers have been able to actively engage with a diverse range of concepts and processes firmly located in Social Ecology. As these students progress in their careers in education and begin to develop the understandings and skills required for making a positive difference in the lives of young people, their learning in Social Ecology will, we are confident, be invaluable. It will help them to play a pivotal role as creative, reflective and self-aware educators in enabling their students to construct more sustainable, equitable, peaceful and meaningful futures.

This book is particularly relevant for those undergraduate and postgraduate students, but also for the much broader community of people seeking more ecological and humane ways to live and relate to one another and the environment.

Suggestions for using this book

The book is a response to, rather than an attempt to define the practice of, 'social ecology'. Those invited to contribute to the collection are just some of the many who have influenced and been influenced by the teaching of Social Ecology at the University of Western Sydney over the last thirty years. Full-time and part-time staff, guest teachers, authors of key texts and graduates have all contributed to this richly varied resource. Although their origins are important, it is their subject matter that connects them and marks the value of this collection.

The collection is divided into four sections, each presenting the subject matter from a different perspective. Because of the holistic and interrelated nature of the subject, the collection can be read and enjoyed in whatever order is relevant to the reader. Both the book and the subject matter encourage an eclectic, intuitive and wandering engagement. In all chapters the personal is constantly in negotiation, crisis emerges through knowing rather than ignorance, and amelioration is a consequence of attitude and reflection in relation to action. Issues of creativity, transformation and sustainability form the spine, and the future teases with learning.

The opening section, 'The Big Picture', comprises a series of articles in which worldviews are delivered, through a social-ecological perspective. In Chapter 1, current Adjunct Professor Stuart Hill's 'Social ecology: An Australian perspective' is a personal account of his experience of the philosophy and practice of Social Ecology at the University of Western Sydney, since his appointment as its Foundation Chair in Social Ecology in 1995. He describes his discovery of Social Ecology as particularly satisfying after 'having had to settle for so much less for so long'; and he identifies with its mission 'to achieve sustainability and benign change'. Central to this is the 'need to pay much more attention to neglected and blocked expressions of humanity' and the 'search for new life-promoting myths'. Similar social narratives feature also in the contribution by Edmund O'Sullivan, one of the founders of Toronto's Transformative Learning Centre. O'Sullivan's systemic analysis (Chapter 2) calls for a creative understanding of change, with respect for the 'the universe process, the earth process, the life process, and the human process within the possibilities of the historical moment'. It is his application of universe processes to education that marks O'Sullivan's contribution, both within this collection and beyond. Adult educator, Peter Willis (Chapter 3), seeks *mythos* within story. He argues that creative construction gives rise to the sort of transformative pedagogy central to the need for new ways of knowing. To be transformative, such pedagogy requires clear structure, inspiring artistry and effective delivery. He argues that story is a place in which the ideals and practices of social ecology can be imagined, and with this in mind he tells his own story of a 'place writers' workshop in southern Tasmania. By contrast, Richard Bawden in Chapter 4 looks at epistemic conflict: clashes within and between ways of knowing. His big picture, like all contributors to this section, argues the need for new attitudes and assumptions, while pondering also the ways in which old and

new worldviews encounter, interact and come into conflict. Bawden argues that the social ecology perspective is one that acknowledges the responsibility inherent in knowledge. He does this in conversation with the ecological perspective and modernism's conflict with pre-modern epistemologies in indigenous Australia.

Bernie Neville (Chapter 5), archetypal theorist and teacher educator, positions his contribution in the midst of sharp social transformation, under pressure of impending ecological crisis. While recognising the failure of social systems, particularly the education system, to respond to this, Neville argues – paradoxically – for the importance of living with complexity, chaos and ambiguity. 'The fate of the planet', Neville considers, 'will not be determined by the brilliance of our technology, but by the genuineness of our dialogue and the strength of our connection to all life.' Educators have a crucial role in this.

Although the final chapter (Chapter 6) in the opening section by composer, conductor and arts educator Barry Bignell is different in tone and content to preceding ones, it is included here because of the subject matter it addresses. Bignell challenges us 'to envisage ourselves as more than we are', to be 'conscious of our humanity in all things'. Arguing this, he draws attention to 'imaginative re-creation', especially to the experience of the 'spoken word'. In doing so he asks us to consider the manner of our communion rather than the logic of it. He argues that in our naming – our languaging – we create consciousness. 'It is to the poet in the child that we must attend, because the quality of the sound-experience refines the power of observation.' The way we speak betrays the way we think; the critic needs only listen to hear us betray ourselves.

The second section of the book, titled 'The Social in Ecology', brings issues of creativity, community, sustainability, place and story into direct conversation with ecological relationships.

Ainslie Yardley (Chapter 7) identifies creativity as a physical relationship with self and environment; as a country with borders, laws and conditions of entry and exit. In doing so she maps a domain of inquiry in constant negotiation with the context. This embodied relational encounter is considered in many of the chapters that follow. Sally MacKinnon's tale of her practical and metaphoric transitions between community gardener and community activist is of this kind (Chapter 8). MacKinnon writes of 'communities as gardens – as living, evolving, self-organising organisms'. She writes about the intense 'political' experience involved in community building and gardening as a way of alleviating the oppressive spirit let loose.

In their contribution, recent Social Ecology graduates Jasmin Ball and Kathryn McCabe (Chapter 9) argue for the need to engage critically and actively with sustainability; and they present this as personal dilemma, not a problem of or for others. They advocate that we 'feel' our way into change through an appreciation of 'mutually supportive relationships'. Using examples from their activist work, they deeply ponder the problems involved in taking effective action.

In Chapter 10 John Cameron, long time Social Ecology staff member and major voice in 'sense of place' discourse, writes of his pathway to an appreciation of

place and the ramifications of a deep and abiding relationship with it. Cameron describes his approach as emerging through Social Ecology's focus on experiential learning and reflection. By positioning these in relation to repeated encounters with specific locations, Cameron seeks to bring to the fore conversations between students about 'their place' and their learning. This is a process that Cameron himself has lived. It has contributed to his retirement from UWS and the reconstruction of his present low-impact lifestyle, and the regeneration of fifty-five acres of degraded land in a remote location on Bruny Island, Tasmania.

Martin Mulligan, like Cameron, is also a former staff member of Social Ecology. In Chapter 11 Mulligan writes of his gradual engagement, post-UWS, with local and global communities. His focus is how communities hold knowledge. He identifies conflict in the relationship between the knowledge systems of global organisations and local communities, and argues that resolving this is central to the development of effective climate change politics. Bruce Fell, Social Ecology graduate and documentary filmmaker, approaches the 'social in ecology' through reference to memory systems and technology (Chapter 12). 'Neuroscience, in combination with cognitive archaeology, informs us that memory is located in two places: internally and externally. This chapter is about this relationship.' By positioning memory in powerful technology, outside the central nervous system, Fell questions the ways in which civilisations can upgrade and contemporise information that is crucial to human well-being and ecological sustainability.

In the following chapter (Chapter 13), the final one in this section, archetypal psychologist and former Social Ecology staff member David Russell echoes aspects of Fell's analysis. Although not addressing technology, Russell examines the relationships between the collective imagination, the construction of mythologies and contemporary life-issues, such as climate change. Russell regards the challenge of 'engaging our imagination in the task of wrestling with real world problems' as first and foremost involving psychological work. Long-standing images and metaphors – such as the earth as passive, nurturing and supportive – can impede this. Russell highlights the need for emotional desire to drive our imagination. 'Desire moves', Russell asserts, 'things change … and we have reason for hope'.

All chapters in this section identify creativity as a means of engagement. All position the experience of relationship deep within the knowledge systems that determine social-ecological understanding. The application of these to learning systems is central in the section that follows.

The third section of the book, titled 'Education and Transformation', opens with an essay (Chapter 14) by Canadian holistic educator John P. (Jack) Miller on Henry David Thoreau. Miller describes Thoreau as both an environmentalist and an educator; who provides a model for effective teaching. Shortly after concluding his tertiary studies, Thoreau established his own school; and central to the program provided were field trips. In this way, nature became source material for all disciplines. The closure of the school, following the death of his brother, triggered Thoreau's immersion in nature at Walden Pond. Education and learning

was never far from his thoughts. Miller characterises Thoreau as someone who wrote 'to inspire the individual to awaken and to live the life they can imagine'. He was, Miller argues, 'one of the first environmental educators'.

Thomas Nielsen (Chapter 15) also considers education as a means for developing positive relationships. He writes about a program designed to educate the benefits of generous action: a curriculum of giving. However, Nielsen writes, 'without giving to the self, with wisdom and awareness, what the self needs, it is hard to give effectively to others'. Thus, Nielsen regards engagement, meaning and happiness as all being within the ambit of school education. He describes a variety of 'giving' initiatives, and the sites of their enactment; and he argues that it 'makes sense to view acts like gratitude, reverence, awe, prayer, etc., as ways of giving to life itself'.

Roslyn Arnold (Chapter 16) has a strong interest in empathy and learning. On the basis of her research into neuroscience, she extols the social-ecological perspective of conscious relationship: 'that ability to experience one's self as a separate being from others, but as a dependent being too'. Arnold advocates this as an invaluable quality for teachers. The capacity to tune into the needs of others, to appreciate the internal dynamics of individual class members, is that which enables transformative understandings to emerge in a classroom setting. Psychotherapist Robin Grille (Chapter 17) is also concerned with neuroscience and nurturing. He argues, 'in childhood and adolescence, the human brain is subjected to profound chemical and synaptic changes wrought through the impact of human relationships. These changes underpin the formation of individual personality and relating styles: the building blocks of any society.' Frustrated, even angered, by the inadequacy of his own schooling, Grille seeks to realise the dynamics that enable the release rather than the neglect of children's 'unique and diverse passions'.

In the next two chapters, current Social Ecology staff member David Wright (Chapter 18) and Social Ecology graduate Graeme Frauenfelder (Chapter 19) build their discussions around the social-ecological learning acquired in the practical processes of drama. Wright argues that within drama processes lie opportunities to acquire a deeply embodied appreciation of the environmental interrelatedness that constructs ecological understanding. Working through principles of cognitive biology and dramatic improvisation, Wright places value on the 'state of becoming' central within drama experience. Frauenfelder's discussion is built around play and joy. He writes of the inspiration acquired in community education work in Zambia where, with a troupe of actors, he travelled from village to village using drama to help build and strengthen community life. He writes also of his participation in community festivals in earthquake shattered China and racially riven South Africa. Play becomes for Frauenfelder an exploration and celebration of spirit, and a manifestation of social-ecological learning.

Current Social Ecology staff member Catherine Camden-Pratt (Chapter 20) comes to the heart of social ecology and its possibilities in personal becoming,

through a focus on writing as practice in creative learning with/in social ecology and the consequences of this for her teaching. She acknowledges the blank page and its power with confidence in her vulnerability and uncertainty as she writes to know. Her writing demonstrates embodiment and how to write this into an academic context. The writing of the chapter itself becomes her subject matter, intermingling with the difficult questions she asks of herself, of creativity and the nature of becoming with/in social ecology. As she observes, 'This is ecological writing that acknowledges the relationships and the contexts in which the writing takes place and their influences on the writer/writing.' Creativity is, for Camden-Pratt, a negotiation between skills, capacity and the unknown. The tools she calls up are multiple, and the relationships she constructs are among the valuable legacies of the learning she communicates.

The final section, 'Ecological Stories', draws together very personal storied responses to the experience of emergence within and through ecological crisis. In Chapter 21 Christy Hartlage draws attention to the practiced rituals that enrich everyday life. Central to these rituals are our relationships with food. These, Hartlage observes, provide a commentary upon our relationships with the Earth. Here lies insight into place, into cycles of life, into production processes, and into the values that inform the depth of our daily communion. Hartlage observes: 'Understanding that our relationship with the Earth is our primary relationship: the relationship that keeps us alive, can lead us to a sensual relationship with our natural community.'

Current Social Ecology staff member Carol Birrell (Chapter 22) also offers a deeply personal tale of relationship. In this instance, it is with a particular region and its people. She invites her readers to accompany her 'deeply' into Aboriginal country; and asks how, or indeed if, it might be possible to 'think black' in Australia. She depicts this as 'moving toward' understanding; as a 'surrendering into … the land and into another way of being'. Birrell asks us to imagine her encounter: to listen for its silences. She tells of those who enabled her to develop this relationship, and about the conflicts encountered along the way, on land, sea and in dreams. She tells of being watched, and being seen here, and asserts that 'an in-depth engagement with Aboriginal culture on its own terms is required. If one desires to sit comfortably with this land, surely one needs to surrender to the land on its own terms', she writes.

James Whelan (Chapter 23) is a community activist and organiser; and in this role he positions himself in the midst of a protest march in Canberra and ponders the relationships that accompany direct action. He describes the police performing to script, and the protestors responding in kind. 'Quickly, a routine was established. In response to their script, we replied, "I will not cooperate with a government unwilling to act to prevent catastrophic climate change."' One by one, activists were led, carried or dragged away, 'their faces communicating fear, conviction, concern and solidarity'. Whelan advocates an ongoing role for direct action in a struggle informed as much by doubt in personal and community resilience as by the possibility of success. Without pondering

what success entails, Whelan fears the consequences of what he calls 'the alternative'.

John Broomfield's contribution (Chapter 24) is a primer on shamanism and its contribution to understanding the breakdown in relationships between Earth and humans. From his perspective there should be a considerable amount of unknown admitted to this discussion. He observes: 'By our ancestors' measure, we have grossly exaggerated our self-importance in the intricate web of life.' In doing so, we have failed to recognise the likelihood that 'there are many more shoulders sharing this burden than we think'. In the chapter that follows, John Seed, with David Wright, also writes from a depth perspective (Chapter 25). His subject matter is the anthropocentrism that is central to the Judeo-Christian tradition. One consequence of this is, he argues, an attitude to the Earth as no more than a resource awaiting commodification. Seed identifies this as a theology that has taken root in economics and among economists. He interprets the consequences of this in the language of ritual sublimation before asking: but what are we to do? Seed advocates an activism of the spirit; as well as the confronting application of humour. Although Seed's debt to Thomas Berry is strong, his debt to his twenty-five years of work as an activist, deep in the mulch of the rainforest, is as important in his contribution to the deep ecology movement.

In the chapter that follows, Social Ecology graduate Ben-Zion Weiss writes (like Wright and Frauenfelder) of the practical application of drama, in his case, for education in anti-racism (Chapter 26). Weiss tells of his own discovery of drama as a means of constructing culture; and he argues for using this as a means for constructing an appreciative culture, able to invest in relationship. He writes of his own experience of racism, and the importance of framing it as an example of 'cross-cultural' conflict. Herein lies the opportunity to use strategies acquired in peace and conflict studies to find resolution.

In the final chapter (Chapter 27) current UWS School of Education staff member Susanne Gannon maps her own relationship to place, in poetry: her 'idiosyncratic response to the call to engage with my particular place and space, through my particular preferred medium of language'. She describes her poetry as a 'material space' in which all components of an environment co-mingle. As she walks she encounters not only a physical landscape, but also a landscape of memories and imaginings. The neighbourhood becomes a 'central protagonist' in a journey of knowledge. Gannon posits poetry as a form of inquiry: a way of knowing and articulating a depth of relationship. An evocation of social-ecological knowledge.

This is a rich collection of readings. We hope you find much that is stimulating and rewarding within. The subject matter is not new, but the times in which we live make it vital and compelling. Experience transforms authority and interrelationship becomes the key to working with the barely fathomable change we are immersed in. As you find meaning in this collection we invite you to find your own voice and your own stories, and to speak with your own communities about your learning and your understanding of social ecology, knowledge and the future we are co-creating.

Note

1   The authors appreciate suggestions prior to and during the writing of this introduction by Catherine E. Camden-Pratt and Brenda Dobia.

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1

SOCIAL ECOLOGY
An Australian perspective[1]

Stuart B. Hill

This is a very personal account of social ecology. In this chapter I will endeavour to discuss what social ecology means to me at this moment, place it within the vast smorgasbord of frameworks for understanding and action, share some critical moments in my evolving love affair with it, and talk boldly about where I believe it can make important contributions to our future, from the individual level to that of the species, and from the local to the global.

Social ecology at the University of Western Sydney

First let me say that social ecology at the University of Western Sydney (UWS) is significantly different from the usual textbook descriptions, which invariably refer only to the writings of Murray Bookchin (e.g. Eckersley 1992; Merchant 1994: 8–9). I have not been able to find clear evidence for Bookchin's first use of the term, although it was probably in the mid-1960s; and his first major work on social ecology was *Post-scarcity Anarchism* in 1971, although he had published an earlier 'preparatory' work under the pseudonym Lewis Herber (1962). Marshall (1992: 423), however, notes that the American ecologist E.A. Gutkind (1953) was the first to refer to social ecology in a publication (it was also a term used by Sir Julian Huxley in a talk at the University of Southampton in 1962, and included in a collection of his essays, 1964), although Bookchin was the first person to develop it into a field of study with a set of principles. These, which I broadly embrace, include unity in diversity and complexity, spontaneity, complementary and mutualistic rather than hierarchical relationships, active participatory democracy and bioregionalism. Although Bookchin has written a lot about a lot of things, he is most known for his disappointments (e.g. with ecologists, Bookchin 1980; see also my reply, Hill 1980a, and observations by Smith 1998: 79) and dislikes – notably hierarchical systems, mysticism, primitivism, postmodernism and deep ecology (Bookchin 1995). At UWS, we tend to be much less judgemental in these areas. Bookchin (who died in 2006) was a passionate ecoanarchist and ecolibertarian who was eager to warn people about the dangers of most aspects of our current society, and to provide us with a critical view of our political history (Bookchin 1982). His central historical position was that domination of nature

has its roots in the domination of humans by other humans, first on the basis of age and gender, and later also race and class.[2] Whatever their origins, because all of these 'dominations' have been systematically institutionalised and integrated into most cultures, an acknowledgment of our interdependent relationships with nature, and of the need for the promotion of non-hierarchical cultures, is particularly challenging. Despite the difficulties of fully understanding Bookchin's position (Watson 1996; Clark 1997; Biehl 1998: ix; see also many papers in Light 1998 for a philosophical and historical analysis of Bookchin's social ecology), he has enjoyed a significant following, particularly in the New England States where he inspired students at Goddard College in Montpellier, Vermont, at which degrees in social ecology have been offered since the 1970s.

For me, as for most of my colleagues and our students at UWS, finding social ecology was like finding home, a home that many of us had almost given up believing might really exist, having had to settle for so much less for so long. This unwillingness to settle for less and a passion to go further, particularly in our understanding and action relating to sustainability and change, is for me one of the most attractive features of social ecology at the University of Western Sydney. This is partly enabled by our version of social ecology's integration of the personal, social, environmental and 'spiritual/unknown' (discussed below) in most of its teaching and research. I was also attracted by its emphasis on experiential learning, participatory action research and other qualitative methodologies, its recognition of the importance of context, and its acknowledgment of diverse ways of knowing (including women's and Aboriginal ways), the importance of diversity and of learning to collaborate across difference, of working for equity and social justice, particularly in relation to issues of power, gender and race, and of learning how to work with and design complex mutualistic systems, recognising chaos as an important precondition for creativity, development and co-evolution, and not something to be quickly controlled and simplified.

Social ecology brings together so many poles that rarely meet: the arts and sciences; critical thinking, reflexivity, passion and intuition; rationality and spirituality; the stories of the ancients, systems theory and chaos theory; plus an extensive list of disciplines. Our social ecology is a transdisciplinary metafield that has been particularly informed by ecology, psychology and health studies, sociology and cultural studies, the creative arts, holistic sciences, appropriate technology, post-structuralism and critical theory, ecofeminism, ecopolitics, ecological economics, peace and futures studies, applied philosophy and 'spirituality' (in its broadest sense).

Minimal competencies for working as a social ecologist

To work effectively as a social ecologist one requires competencies in a number of areas that are rarely grouped together in educational programs, particularly at the tertiary level. These include certain minimal understandings in the following four areas.

- Personal: what it means to be fully alive as a member of our species and of one's communities, and as an active, responsible and creative partner in relationships (Shem and Surrey 1998), how our bodies and minds work (see especially the ecological epistemology provided by Bateson 1972, also Harries-Jones 1995), how we learn and develop, the relationships between the physical, mental, emotional and 'spiritual', between organism and environment (and sense of place), self, others and society, and a basic understanding of physiology and psychology.
- Social: including the nature of our various institutional structures, instruments and processes (politics, economics, religion, the arts, science and technology, education etc.), and our history, particularly our psychosocial history (see especially deMause 1982 and 2002 for a challenging view of this).
- Ecological: biodiversity (Dale and Hill 1996), biophysical processes, time and space, niches, roles and multifunctionality, limits and thresholds, non-linearity and cycles, mutualism and synergy, ecological succession and co-evolution, resilience, and self-regulation and maintenance.
- Processes of change: relations between personal, social and environmental change, the driving and restraining forces that are involved, and how to strengthen and add to the former, and weaken and remove the latter (Lewin 1935), how to work with 'memes' (Beck and Cowan 1996), imagination, creativity and visioning, collaborative inquiry (Heron 1996), participatory action research (Reason and Bradbury 2001), soft systems methodology (Checkland and Scholes 1990) and mutuality, or the 'we' as Shem and Surrey (1998) refer to it.

In gaining understanding and competence in each of these areas it is necessary to have opportunities to learn through personal experience and through exposure to mixed outcome case studies and diverse models.[3]

Definition

Because of the richness referred to above, it is difficult to find a definition of social ecology that is widely accepted within the UWS community, partly because the parts of it that are emphasised by each individual vary with their current interests and contexts. For me, at the moment, it is concerned particularly with 'the study and practice of personal, social and ecological sustainability and progressive change based on the critical application and integration of ecological, humanistic, community and "spiritual" values'. I am aware that all of these terms are hotly contested. However, I am choosing to use them, with some degree of discomfort, until I find better ways to describe my position.

Inclusion of the personal, social and ecological

Such a condensed definition needs some explanation. Let me say first, however, that by stating my latest provisional thinking on the values that I consider central to social ecology I am hoping to encourage others to do likewise, partly to help me to further develop my own understanding. I am making the following statements not to say that this is how it is or must be, but rather that this is how it seems to me at this moment in time. It is my current story, my collection of narratives that make some sense of my experiences as a social ecologist. Working with such embodied stories is also central to my practice as a social ecologist.

The first and, for me, most important point is the explicit inclusion of the personal, emphasising our relational self (Josselson 1996; Shem and Surrey 1998). Most comparable so-called holistic frameworks for understanding and acting in the areas of sustainability and change use as their three main categories economics, society and the environment. I believe that this privileging of economics, as being more important than all of our other social constructions – more important, for example, than politics, religion, the arts, science and technology, education, systems of values and ethics – is part of our problem. It helps to perpetuate a narrow monetary system of values and decision making; and, by doing this, it concentrates power in the hands of those with large amounts of money. A broader and more diverse base for decision making would be more compatible with, and supportive of, a participatory democracy. Also, the common neglect of the personal supports the widespread perception that our problems can only be solved by heroes (mythologised rather than real people), particularly politicians and scientists, rather than problem solving (and, more importantly, prevention) being a collaborative project that requires all of our contributions.

Money, along with our other institutional structures, instruments and processes is, I believe, better regarded as a 'tool' that needs to be designed/redesigned and used wisely to help us to implement our values. Such tools need to be subservient to and supportive of our collective broader values, and not the other way round. Taking such an approach would cause us to pay much more attention to the development and clarification of our values and to their centrality in our day-to-day discourse, decision making and action. So many of the crises reported in the news each day provide clear feedback that most of our institutional structures, instruments and processes are in urgent need of redesign. Yet there is an enormous resistance to both acknowledge this and embark on the necessary task of transformation and redesign. Rather, the usual response is to seek solutions to the symptoms of crises within a problem-solving framework.

My own vision of a preferable society, based on my present limited level of understanding, would have the following features. A right to meaningful work and access to the ingredients needed to construct healthy and creative lives would gradually replace our current view of 'labour' as a cost to be minimised and even eliminated. This might help us to recognise the current dominant attitude as just one expression of our enslavement to a manipulated, deceptively simple economic

bottom line (when the absolute bottom line is bio-ecological). With a more wide-spread recognition of the importance of ecological limits and opportunities, the development and use of solar and appropriate technologies would be emphasized; and non-renewable resources would be conserved for higher priorities than running cars and heating houses. The need to conserve the rich biodiversity with which we share this amazing planet would be much easier to understand. This contrasts with our current oversimplified division of nature into resources to be managed and sold for profit, and pests to be eliminated with the vast chemical arsenal that we have assembled to, tragically usually non-specifically, eliminate life. What is most puzzling about this situation is that most people seem to assume that they are somehow immune to these non-specific attacks. We should expect, rather than be surprised by, the common increases in degenerative diseases, immune system breakdown and associated behavioural problems. Indeed, these should be regarded as indicators to be responded to at the causal level, rather than as new 'enemies' to be subjected to the same faulty thinking and overkill technologies that got us into this mess in the first place. Most of the new biotechnology 'solutions' are sadly being conceived within this same deceptively simple construction of nature. This time, however, the ability of naively reconstructed organisms to multiply themselves and conduct their own 'experiments' could lead to much greater crises than those associated with our naive physical and chemical experiments.

Norgaard's (1994) co-evolutionary framework for sustainable development and change similarly stresses the importance of values. It also highlights the tendency of our overemphasis on powerful institutional structures, such as global economics and the transnational corporations that they serve, together with certain powerful technologies, to colonise and compromise our values, diverse knowledge systems, and the health of our environment, our communities, our relationships and ourselves. He argues that genuine sustainable development requires a tick in each of these areas without such compromise.

My experience of working with a diverse range of populations over the past 40 years has led me to conclude that situation improvement projects are most effective and sustainable when they work in ways that integrate the personal, social, ecological and 'spiritual'. Such a framework is most supportive of participation, collaboration, personal development and creativity, responsibility and ownership, and a sense of place, purpose and meaning (Hill 2003). Thus, for me, the difference between highlighting the personal or economic is far from trivial. It has important consequences, not least of which is the imperative for developing the competencies noted above in each of these four broad areas, and gaining an understanding of the ways in which they are interrelated.

Sustainability and progressive change

I regard sustainability and progressive change very broadly. For example, at the personal level I regard most psychotherapy as being concerned with sustainability (through its involvement in recovery, rehabilitation, reconstruction and

maintenance, especially of mutually beneficial relationships) and progressive change (through transformation and development). Similarly, within societies most of our institutional structures, instruments and processes are preoccupied with the often apparently contradictory forces associated with sustainability and change (Sattmann-Frese and Hill 2008).

The highlighting of sustainability and progressive change emphasises the two dominant features of all living systems; maintenance, into which most resources and energy are naturally channelled (usually well over 50 per cent), is the process that enables sustainability, and adaptation, transformation, development, succession and co-evolution are the dominant expressions of change.

The tension between sustainability and change is similar in some respects to that between the two interrelated main ways of being in the world that are essential for our well-being: 'knowing' (as a necessary prerequisite for effective and responsible action) and 'unknowing' (necessary for learning). This is best visualised as a progressive upward spiral, with knowing on one side, and learning on the other. The key is to be able to move flexibly and appropriately between these two processes, not getting stuck for too long on one or the other side of the emergent spiral. If we get stuck on 'knowing' we are in danger of becoming boring, oppressive and controlling 'know-it-alls', with well developed defences against new learning. People stuck on 'unknowing', on the other hand, often present as being apathetic, lost, searching, postponing, or as hypercritical 'unknow-it-alls'. Learning to work flexibly and spontaneously with knowing and unknowing, the rational and the mystical, science and 'spirituality', the modern and postmodern (and post-postmodern), order and chaos, goals and plans, visions and dreams, and sustainability and change is one important expression of the essential competence of being able to embrace, learn from and work with paradox, an essential social ecology competence that remains largely undeveloped in our society. Rushkoff's (1996) book *Children of Chaos* provides a paradoxical, challenging and hopeful view of how many young people, by playing with chaos, creativity and 'shadow' material, and with computers, are already intuitively preparing themselves for creating a more benign and caring future.

With respect to sustainability – the rehabilitation, conservation and maintenance of ecological, cultural and personal capital, including especially mutually beneficial relationships – it is important to recognise that whereas ecological (and, to some extent, personal) sustainability deal with absolutes, such as the air, water and nutrients for life, together with a vast range of mutualistic relationships, the requirements for social and cultural sustainability are relative and much more flexible. Because money has no comparable requirements, economic sustainability, in contrast, is dependent primarily on the wisdom of our decisions and actions (thus, money is in no way comparable to resources like air and water). Consequently, economic sustainability must serve firstly ecological sustainability, and secondly personal and sociocultural sustainability, and not vice versa. P.A. Yeomans (1958) Keyline system provides an exemplary systemic approach for working ecologically with landscapes (see also Savory and Butterfield 1999 for a

systematic approach to decision making and its application, particularly to range management).

The absolute nature of ecological sustainability has important legislative, legal and regulatory implications. Thus, interventions into ecosystems (simplification, harvesting, waste disposal, release of novel chemicals and genetically modified organisms) must be regarded as 'guilty until proven innocent', with much reliance being placed on the precautionary principle (Harding and Fisher 1999; Raffensperger and Tickner 1999). Similarly, risk studies need to be conducted with reference to ecological absolutes and sociocultural values, and not based simply on economics. Currently, as part of a tendency to preserve the status quo (or extrapolations of it), most risk studies, which should be providing us with valuable feedback for necessary 'redesign', are concerned only with problem measurement and assessment – I call this 'monitoring our extinction' research – rather than with risk reduction and avoidance (see also Raffensperger 1998).

With respect to change, it is important to distinguish between 'deep' sustainable change, which usually requires fundamental redesign of the systems involved, and of our relationships with them, and 'shallow' adaptive, substitutive and compensatory change, which usually unintentionally protects and perpetuates the very structures and processes that are the sources of the problems that we are endeavouring to solve. In my work I distinguish between '**E**fficiency', '**S**ubstitution' (shallow) and '**R**edesign' (deep) approaches to change (e.g. Hill 1998). Although this **'E-S-R'** model was first developed for re-conceptualising pest control from inefficient to efficient use of pesticides, to the use of substitutes such as biological controls, to the integrated redesign and design of complex agro-ecosystems – to favour the crops and natural controls and not the pests, e.g. Hill 1990; Hill et al. 1999 – I have found it to be broadly applicable to all systems. It is important to be aware that 'efficiency' and 'substitution' strategies may serve either as stepping-stones or as barriers to the ultimately needed 'redesign' approaches.

My broad use of the ESR model, and habit of suspecting that any phenomenon detected in one part of a system might also be operational in its other parts – in generically similar yet specifically different ways – is one expression of the concept of 'holonomy' (Harman and Sahtouris 1998), and of the 'holographic paradigm', which is central to my approach to social ecology.

I have also found that when working with social change it is important to meet people where they are, acknowledge their past and present relational efforts, support their 'next small meaningful steps', and if appropriate to celebrate their progress and completions publicly to facilitate their spread. This is in contrast to the more common overemphasis on ('Olympic' scale) mega-projects, heroes, experts and heavy-handed technological and legislative interventions. Using the former approach with Quebec farmers interested in adopting more sustainable systems of farm design and management led to much higher rates of change than had been achieved elsewhere using the more conventional top-down approaches (Hill and MacRae 1992).

Another key to the effective implementation of sustainable change is to be imaginative in integrating personal (including 'spiritual'), social (including institutional) and environmental approaches, while also being aware of their (limited) substitutability. For example, the provision of a benign environment may, even in the absence of personal change initiatives or the fundamental redesign of institutions, lead to benign behaviour and health. This was achieved most dramatically in the Peckham Experiment in the UK. In this experiment, over 1,000 families, who had access to a supportive recreational centre in Peckham between 1935 and 1950, experienced no marriage breakdowns, no violence, little interest in competitive games, the widespread formation of mutually beneficial relationships and a dramatic improvement in their health and well-being (Williamson and Pearse 1980; Stallibrass 1989). Similarly, there are numerous examples of individuals in deep psychotherapy, or who have been members of a supportive peer counselling or relationship counselling group, in the absence of environmental or institutional changes, significantly transforming their ways of being and relating in the world and similarly achieving dramatic improvement in their health and well-being (Janov 1971; Mahrer 1978; Gruen 1988; Stettbacher 1991; Jackins 1992; Rowan 1993; Shem and Surrey 1998). The greatest gains are likely to be achieved, however, when mutually supportive and potentially synergistic initiatives are being taken, in integrated ways, in all of these four areas (personal, social, ecological and 'spiritual').

Conversely, it is not surprising that in a culture that emphasises growth, greed, individualism, power over, hierarchy and compensatory, stimulatory consumption (particularly through commodification and manipulative advertising), and other characteristics listed in Table 1.1, that disempowerment, relationship breakdown, apathy, irresponsibility, addiction and violence will be common. Clearly, if we are to achieve sustainability and benign change, we will need to pay much more attention to the neglected and blocked expressions of humanity listed on the right of this table.

Ecological, humanistic and community values

Because reference to these qualities has been made throughout this chapter, only certain contentious points will be highlighted here. These values need to be considered together to avoid arriving at conflicting imperatives. As indicated above, however, it is essential that our species recognises (at every level) the primacy of those ecological values (listed earlier) that are concerned with our survival, health and well-being. Because these are currently being compromised within our societies by so many political, cultural, business and personal decisions, this point cannot be overemphasised. I have previously published a more extensive list of ecological values (Hill 1980b), and have spent over 40 years endeavouring to apply them, particularly to the design and management of sustainable food systems (e.g. Hill 1998, 1999).

Enlightened humanistic values (Bookchin 1995) demand that we live up to our potential as human beings. There is currently much confusion and polarisation

Table 1.1   Dominant pressures and areas of neglect in industrialised societies

Dominant grand narrative of 'progress	*Neglected/blocked*
Production (regardless of cost)	Maintenance, caring
Growth, no limits	Sustainability, limits (resources, ecological …)
Competition	Collaboration, mutualism, synergy
Wealth	Sense of enough
Individualism	Community, mutualistic relationships
Consumerism (emphasising compensatory wants)	Conserver society (meeting basic needs)
Homogenisation, simplification	Maintenance of diversity
'Controlling' science ('understanding' science and arts as a disposable luxury)	'Understanding' science and arts
Powerful technologies (often centralised, imported, inaccessible, unrepairable)	Appropriate technologies (decentralised, locally accessible, repairable)
Market forces (manipulated demand, excessive advertising)	Values-based decisions (participatory democracy)
Economic rationalism (monetary system of values)	Meeting the greatest 'good' (social justice …)
Transglobal corporate managerialism	Regional self-reliance and responsibility
Mobile, disposable workforce (disconnected from place)	Sense of place, right to meaningful work
The *myths* that these are embedded in are *inadequate* for securing a 'good' future for most in present and future generations	We *need* to search for *new life-promoting myths* that can accommodate these characteristics: *some* can be found *within nature* (*and ecology*)

in this area. Social ecology has been accused of being overly anthropocentric by some of its critics, who have compared it with the supposedly more biocentric deep ecology perspective of Arne Naess (1989) and his followers. My version of social ecology is, however, constructively critical of both positions. Because all healthy humans naturally have a survival instinct, we are, in this respect, innately anthropocentric. To value another species above, or exactly equal to, that of one's own can often be indicative of deeper problems of psychological woundedness, transference and/or projection. For example, if as a child one's 'animal' nature was inadequately acknowledged, nurtured and integrated into one's personality, one adaptive compensatory response might be to seek alternative external ways of keeping this alive, perhaps through an excessive concern for other species, especially those with which we most commonly identify. My point here is that by raising children to value their 'animal' nature (along with their other natures)

they are more likely to be proactive in valuing the richness and diversity of nature as a whole, and to be consistent in acting on this knowing in responsible ways. In contrast, compensatory preoccupations tend to be relatively temporary and the energy invested is often more cathartic than constructive. The other extreme adaptive response to such deficient child rearing might be to largely deny one's 'animal' nature and, in so doing, also the value of external nature.

A parallel argument has been applied to valuing and nurturing the feminine, as well as the masculine, in males, and the masculine, as well as the feminine, in females (Shem and Surrey 1998). Certainly we live in a world dominated by patriarchy, androcentrism, extreme anthropocentrism, technocentrism, racism, ageism, and a range of other uncaring and irresponsible prejudices. Clearly these must be addressed if we are to not disadvantage future generations and further diminish the planet's biodiversity and habitat quality. Trying to resolve these problems by fanatically focusing on a particular type of 'otherness' tends to lead to further problems, not least of which is a common lack of respect and heightened competition between those committed to different 'others'. The key, I believe, is to develop our understanding and caring for both our selves (our diverse natures) and otherness. Part of the common concern for making these equal (rather than equitable), simply by taking from one and giving to the other, may come from an assumption that there is not enough caring (or resources) to go around (another common 'lesson' from childhood). The personal task is to respect, value, support and develop mutualistic relationships with others so that their needs may be satisfied and their creativity and 'gifts' to the world expressed and received. The social task is to create contexts that are supportive of doing this, and especially of nurturing humanistic values and mutualistic relationships in children. Key child rearing and personal development references that integrate this awareness include Solter (1989), Stallibrass (1989), Josselson (1996), Shem and Surrey (1998) and Sazanna (1999).

The importance of community values follows from the above, for children need to be raised in diverse interactive communities in which they feel cared for and where they can form meaningful relationships. Although the current widespread loss of community, unlike the loss of species, is largely reversible, it is nevertheless a source of immense pain and diverse compensatory consumptive and impacting behaviours. It is also an example of an externality that is rarely considered in our obsession with short-term economic efficiency and associated economic rationalism and managerialism. A hopeful development is the growing literature on cultural and social capital (e.g. Roseland 1999). For me there are parallels between caring for and maintaining the soil within ecosystems (Hill 1989), communities within societies, and the 'shadow' within the self. The tragedy is that not only are we rapidly eroding soils and communities, we are also losing the knowledge and skills and institutional structures and processes that are needed for their ongoing creation and maintenance; and in the process we are also losing our sources of imagination, creativity, intuition and wisdom.

One approach used by many social ecologists to help address such problems involves supporting the formation of 'learning communities' (Senge 1992) and 'collaborative inquiry groups' (Heron 1996). These may then provide the ground within which the needed benign structures and processes can co-evolve. Hunter et al. (1997) have integrated these and other approaches into what they call 'co-operacy', which they regard as the next stage in our social evolution, after autocracy and democracy. Central principles within a co-operacy include caring and sharing, transparency and access, inclusiveness and participation, comprehensiveness, responsibility and proactivity.

'Spiritual' values

The final inclusion in my short definition of social ecology refers to 'spiritual' values. Here I am concerned that spirituality functions as a spontaneous and integrated expression of our core nature, and not as compensation, escape or addiction. For me, spirituality is concerned with the 'rest', the mystery, the unmeasurable wonder and amazingness of it all – from our still largely unknown origins to our unknowable futures. As such, spirituality is related mostly to the 'unknowing' side of the spiral referred to above. It is not something that needs to be explained and organised in great detail. Rather it is one expression of being human – a source for our creativity and openness to learn and relate. In our distressed state, however, many of us have subjected spirituality to the same organising and controlling forces that have been applied to our other social constructions – hence the existence of so many religions, which restrict both life and our ongoing psychosocial evolution. Although claiming to cater to our deep spiritual needs, most religions are more obviously designed and managed to meet the superficial compensatory desires of their constructors, overseers and followers. I believe that such over-organisation of spirituality is robbing so many of us of contexts within which to develop our sense of wonder, so necessary in turn for the development of our values, respect, caring and responsibility.

Conclusion

I believe that the social ecology framework described above can provide us with the breadth and depth of understanding that is needed to carry us forwards to the next stage in our psychosocial co-evolution. To do this we will need to work with rather than against the narrower disciplines, and be more proactive in collaborating with the other metafields, such as those concerned with sustainable development, peace and futures studies.

Notes

1   Based on my 1999 paper, 'Social ecology as future stories: an Australian perspective', published in *A Social Ecology Journal,* 1: 197–208.
2   This view contrasts with that of critical theorists such as Adorno (1955: 67), who consider that domination of nature by humans proceeded domination of humans by humans. I regard both of these behaviours as mutually reinforcing and the phenomenon as an example of negative psychosocial coevolution.
3   The 'Readers' that we used to make available to our students in social ecology aimed to provide key reference materials in many of the areas referred to in this chapter.

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