

Critically Acknowledging, Celebrating and Enabling Further Development in Deep Organics' Contributions to Sustainability and Wellbeing: A Social Ecology Perspective

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My aim in this presentation is to support the thinking and actions of others in enabling organics to continue to develop in ways that will permit it to make increasingly significant contributions to sustainability and wellbeing.

I consider that integrating a social ecology¹ approach can best enable this (Hill 1999a, 2000a), along with a focus that emphasises redesign/design over substitution and efficiency (Hill 1982, 1985, 1998), and that more explicitly relates changes in our agriculture and food systems (agroecosystems) to those within both our institutions (societies and cultures) and people (individuals and small groups) (Hill 1991a, 1999b, 2001a). This may also be helped by recognising the transformation involved in this developmental process as one expression of a psychosocial co-evolutionary change from a 'socialising' to an 'enabling' culture (deMause 1982, 2002, Hill 2003a, 2004a).

I call this approach to farming 'Deep Organics' (e.g., Hill, 1991b, 2000b).

My Background

First some background, so that you can appreciate the evolution of my understandings about organics over the past 50 years, as well as what underlies the challenges I will be presenting today. I was born and grew up in England; learning about composting and growing much of our own food from my maternal grandfather, and having a fascination for all things natural. I studied zoology, and in the mid-60s I did one of the first whole ecosystem energy-flow/community-relationships studies (of a bat-inhabited cave in Trinidad: Hill 1969). I became most fascinated by the life in the 'soil' (bat guano!) part of the ecosystem (Hill, 1986, 1989a), and this led me to the early literature on soil-food-health relationships, including the work of Sir Albert Howard (1947) and his colleagues and followers. After writing up my PhD, at Reading University (UK), in 1969 I went to McGill University (Canada) to work with the soil zoologist Professor Keith Kevan in their Faculty of Agriculture. Kevan was an outstanding scholar, but I was horrified at how many of my other colleagues taught agriculture. I taught ecology, soil ecology, entomology, pest control, and eventually organic farming (first as an evening course in 1974; in 1987 this was offered as 'Issues in Alternative Agriculture', which later became 'Principles of Ecological Agriculture' in an eight course Minor in 'Ecological Agriculture').

In 1974 we established, and I became Director of, what for a time was the largest resource centre in the world on sustainable and ecological (including organic) agriculture, 'Ecological Agriculture Projects' (EAP: www.eap.mcgill.ca). In 1978 EAP co-organised with the 'Mouvement pour une Agriculture Biologique' (MAB: led by Clement Boulanger) the very successful 2nd IFOAM International Conference in Montreal (Hill & Ott 1982). This was the first conference at which half the presenters were reporting on work in the tropics; and funding for travel and accommodation was obtained for 21 of those speakers. In the Preface of the Proceedings I wrote the following, which I consider is as relevant now as it was 27 years ago!

¹ *The study and practice of personal, social and ecological sustainability and progressive change based on the critical application and integration of ecological, humanistic, relational, community and 'spiritual' values (modified from Hill 1999a).*

“The publication of these proceedings is timely, for there is a growing demand for the kind of information that is contained within the papers. Reduced availability of certain resources and a growing awareness of the need to safeguard environmental health, together with the increasing popularity of futures studies, and of the values changes that they imply, have combined to create an environment in which organic farming is beginning to receive serious attention, by food system professionals, farmers and consumers alike. Its potential to reduce some of our resource and environmental problems and, at the same time, take into account our cultural and spiritual needs will, I believe, become more significant as we approach the end of the century. By then, we will probably be involved in the most significant cultural revolution that our species has witnessed, and we may look back on some of these papers and regard them as prophetic. I would rather, however, that we responded to them now and thereby avoid the traumas that we will undoubtedly experience if we wait to heed such warnings.” (p. 10).

Despite the significant progress that has been made, I believe that we need to reflect during this conference on what might have prevented most of us from even more effectively addressing such issues, and from being more creative and determined in our actions; and to wonder to what extent we have put ourselves in a ‘sandbox’ (Marien 1983).

At its peak, EAP employed over a dozen people and it served as the resource base for the Province’s organic extension service, which was established in the late 1980s to meet the needs of organic producers throughout Quebec. We produced numerous annotated bibliographies and synopses of the critical literature on the key challenges facing Quebec’s organic farmers, and we published numerous papers and wrote many technical and organisational reports (many are available at the above web site: see especially Hill & MacRae 1992, 1995, MacRae *et al.* 1989a, 1989b, 1990, 1993). During this time I served on several government committees, and also trained in psychotherapy. I was becoming increasingly interested in the processes involved in sustainable transformative change (Hill 2001a, 2003b).

In 1995 I left McGill and was appointed Foundation Chair of Social Ecology at the University of Western Sydney. Social ecology provides a broad framework that encompasses personal, social and cultural (including economic, political, business etc), ecological and ‘spiritual’ factors and their interrelationships, and it is particularly concerned with ‘progressive’ change, sustainability, social justice and personal, community and ecosystem health and wellbeing. Its breadth, which contrasts with the largely *status quo* maintaining economics dominated triple bottom line (TBL: economy, society and environment), can help us to broaden our focus, for example, from ‘ecological footprints’ (Wackernagel & Rees 1996) to ‘social ecology footprints’, ‘integrator indicators’ and ‘holistic testing questions’, and this would, I believe, enable us to more appropriately consider all of the above factors (Hill 2005; Fig.2). Such broadening would permit us to include the many benefits of organics that are neglected by naïve cost-benefit, and even ecological footprint, analyses, such as its very important contributions to biodiversity conservation (Dale & Hill 1996), reduced health costs, and personal wellbeing and support of sustainable lifestyles. Our case for organics needs to much more comprehensively document these and its many other benefits.

Since coming to Australia I have worked particularly with livestock producers who are doing rotational grazing (Savory & Butterfield 1999, Voisin & Lecomte 1962), further pursued my interest in P. A. Yeomans’ Keyline approach to landscape design and management (Hill 2001b, 2003b, 2006, *in press*, Mulligan & Hill 2001, A.J. Yeomans 2005, K. Yeomans 2002, P. A. Yeomans 1958, 1971, 1978), and its contributions to Permaculture (Hill, 2003b, Holmgren 2002), and my work linking ecosystem and social change with personal change (Hill 2001a, Hill *et al.* 2004), the fostering of mutualism (Boucher 1985, Shem & Surrey 1998), and sense of place (Cameron 2003, Hill 2003b). Central to all of this work has been an ongoing interest in sustainability (Hill 2004b, 2005), wellbeing

(www.onlineopinion.com.au/view.asp?article=2598) and enabling ‘progressive’ change (Hill 2001a, 2003b).

Most recently I have been employed by the Victorian Government as a consultant, with the title ‘Provocateur’, to work with their Department of Primary Industries and Department of Environment and Sustainability, to help enable them to further develop their programs supporting sustainability and wellbeing in rural Victoria (Hill 2006).

I want to acknowledge the many inspirational, challenging and caring relationships that I have been privileged to have, and that have enabled me to continue to develop and act on my learning. These have included Lady Eve Balfour, who in 1977 told me that of all the people she had ever met none had impressed her more than P. A. Yeomans, and that if I ever had a chance to go to Australia I should visit him – I wrote him immediately and we shared ideas. Mary Langman was also a dear friend who kept alive the Soil Association – Peckham Experiment (soil-health) link (<http://www.thephf.org.uk>; Williamson & Pearse 1980). My connections with numerous leaders of the Bio-Dynamics movement led to my writing the Forward in Dr Herbert Koepf’s book ‘The Biodynamic Farm’ (Hill 1989b), in which I stressed the importance of keeping an open mind to life’s mysteries and to all that cannot be readily quantified.

Reflections

Based on this experience, I have been reflecting for this presentation on the threats, weaknesses, strengths and opportunities for organics, and I want to share with you what I regard as the main challenges facing organics and what might be done about them. I particularly want to emphasise the importance of embracing ‘Deep Organics’ as a shared goal.

I first distinguished between Shallow and Deep Organics in relation to my work on pest control (Hill 1984, 1985, 2004c, Hill *et al.* 1999). Farms, as with all systems, have aspects that run smoothly and that do not generate problems, and aspects that do not work well and that consequently generate a range of problems (short- and long-term, near and far, direct and indirect, obvious and subtle). If these problems are pests, in conventional agriculture they are usually regarded as enemies and sprayed with synthetic biocides (as such chemicals affect the biology of organisms the term pesticide is inappropriate as it is the economic or nuisance properties that makes an organism a pest, and chemicals cannot distinguish on this basis). Criticisms of this practice have led primarily to two responses: the more ‘efficient’ use of the biocide (method of application, timing, placement, use of an economic threshold and monitoring of pest numbers, etc), and the ‘substitution’ of more benign interventions (botanicals, biological controls etc.) and alternative strategies (traps, repellents, mating disruption, etc.).

Parallels may be recognised in all areas where problems are encountered, including soils, veterinary, medicine, throughout society and in our personal lives. These strategies that are directed at symptoms are what I have critically referred to as ‘Shallow’ approaches, as in ‘Shallow Organics’. Although such approaches may be vital as holding strategies that may be needed while ways can be found to take ‘Deep’ approaches, and as stepping stones towards the latter, they must never be regarded as end points – because they draw our attention away from the underlying causes of the problems – the maldesign and mismanagement of the systems involved.

The third stage in this progression, beyond ‘efficiency’ and ‘substitution’, involves the structural and managerial ‘redesign/design’ of systems, so that they can, as much as possible, be self-maintaining, self-regulating, and problem-proof. Problems are then regarded not just as enemies to be attacked, but rather as valuable sources of informative feedback from our designs and management approaches, which therefore need to be critically examined and changed appropriately. The most benign curative approaches may then be used – as short-term emergency measures – while we find ways to address the

problems at the causative level. I have recently reviewed this approach in relation to agricultural pests (Hill 2004b).

My interest in agroecosystem design is also the reason for my interest in Yeomans' understandings and experiences, as he more than anyone else in agriculture has pioneered a design approach. The benefits of taking such an approach invariable extend beyond the initial motivation. Thus, Allan Yeomans (P.A. Yeomans' middle son, who manufactures an improved version of the Yeomans Plow: www.yeomansplow.com.au) has recently calculated that by practicing Keyline landscape management, Australia could fix more carbon annually (in the soil as humus – much more than could be captured by planting trees!) than it releases from all fossil-fuel burning; and that this could play a key role during the inevitable transition from non-renewable to solar-based energy systems, and to the necessary reduced dependence on energy in all forms (A.J. Yeomans 2005).

Strengths

Given the above perceptions, for me the key strengths of organics are that it is a 'value-added' form of food production and handling that includes benefits in the following areas.

Personal

- Access to more meaningful and fulfilling forms of farming – that is linked to higher values and philosophical understandings, a sense of integration and connection, less dependent, more creative, open to the unknown and unexplained, access to an interesting community and rich body of knowledge and skills, satisfaction of knowing that the produce is more nourishing, the systems more sustainable, and the impacts less than conventional systems, etc.

Social

- Many farmers have direct marketing relationships with consumers, cutting out the cost-adding and profit-diluting middleman, enabling a two-way flow of information (education) and appreciation
- Provides a sound basis for the development of truly sustainable and wellbeing-enabling food systems
- Young from urban and suburban backgrounds are moving to rural areas to farm organically (when so many young people from conventional farms are leaving) and setting up 'small (appropriately-sized) farms'; they are more open to new ideas and experimentation, and don't suffer from the negative on-farm judgements from previous generations
- Provides models for rethinking the design and management of our institutional structures and processes (political, economic, business etc).

Ecological

- Provides a sound basis for the design of ecologically sustainable managed ecosystems.

Other Features

- Deep Organics emphasises proactive design and management of systems that enable sustainability and wellbeing; and the progressive psychosocial co-evolution of our species, from 'socialising' to 'enabling'.

Weaknesses

The weaknesses within the organic movement are similar to those within most other movements, and society as a whole; and most of these can be traced to psychological and relationship problems, and to unsupportive institutional structures and processes. Consequently, these are the areas that most require our attention, effort and creativity; and they are the areas where there is persistent denial and postponement. There are also:

- Problems associated with responding – through intensification and increased 'control' interventions – to many of the same growth, supply, convenience and cosmetic standards pressures facing conventional producers, with the result that many organic farms superficially look no different than conventional ones.
- Organic standards limitations that are not supported by data, especially concerning environmental impact.
- Growing vulnerability to displacement by better and more widely understood and accepted standards and labels.

We are also weakened by our unwillingness to develop more sound bases and tests for our practices. Particularly vulnerable areas include:

- greater ecological impact caused by some natural/botanical biocides than by some alternative synthetics;
- the mining of soils by, and unsustainability of, some organic producers;
- our still weak and often confused position on genetic engineering;
- our internal divisions and animosities (quite similar to those among the world's religions!);
- the persistent lack of adequate communication to the general public, and their still low confidence in the validity and value of organically labelled produce;
- labelling that is often unattractive and unclear and incomplete; and
- the still relatively low influence and poor image in government, research and educational institutions.

Opportunities

Opportunities for progress exist in all of the areas identified above. Common failures are to point the finger at others in an effort to blame and find excuses for our lack of progress; and also to over-focus on mega-projects, which are invariably abandoned after only the initial fact-finding stages have been completed. What are needed most, however, are acceptance of responsibility, the initiation of individual and small group projects, and their publicity so that others may copy and be inspired by them. The most effective larger scale projects will be those that support and enable the initiation, conduct, spread and evolution of these smaller meaningful projects.

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'Deep Organics' Farms are/can be Value-Adding Food/Planetary Systems

(push for legislation to reward value-adding & penalise value-subtracting)

Personal: farm families, food-system workers, consumers

- enabling nourishment, wellbeing & 'higher' values-based living; fulfilling; more aware, empowered, visionary, hopeful; living in the present, **spontaneously: building & maintaining personal & 'spiritual' capital**
- caring, loving, responsible, meaningful, mutualistic, **negentropic relationships** with diverse others (valuing equity & social justice), other species, places & planet (home to planetary maintenance)
- lifelong learning, creating, **developing** & progressing

Social/Cultural/Political: institutional structures & processes)

- **building trust, supporting access, collaboration, responsibility, celebration, design of life-enabling communities & cultures: building & maintaining social & cultural capital**
- **valuing cultural diversity, mutualism, co-operacy (beyond democracy)**
- **enabling cultural development & psychosocial co-evolution (from 'socialising' to 'enabling')**

Ecological: agroecosystems & local to global nature

- **building, regenerating & maintaining natural capital (soil, water, species & cultivars/varieties, habitats, ecosystem 'services', etc), CO2 capture & storage in soil, aesthetic landscapes**
- **functional high biodiversity & resource conservation; prioritised uses**
- **design & management to enable ecosystem development**

Other key features: approaches, attitudes, 'tools'

- proactive
- redesign/design focus
- small meaningful achievable initiatives
- public celebration to enable spread
- seeking opportunities for 'progressive' change
- using early & integrator indicators, strategic testing questions, & total feedback to monitor & manage system wellbeing

Opportunity for Organics to go ‘Deep’(er) & Save the World!

Unpredictable weather & climate change caused by Global Warming [which is an anthropogenic problem] poses the greatest single threat our world & all humanity has ever faced.... it is possible to reverse this within 10 years...by converting CO₂ in air to stable soil organic matter & humus.

Most elevated CO₂ comes from 2 sources:

- 1) fossil fuel burning & their use in production & use of agrochemicals, plastics, explosives, etc;
- 2) soil degradation: from accelerated breakdown of soil OM resulting from use of agrochemicals, inversion tillage, mono-cropping & associated bare soil management, & lack of OM recycling (amount lost from soil is similar to that from fossil fuel burning!).

Modern agricultural practices generally reduce soil OM by 50% within 30 to 40 years.

Fertile topsoil may contain 20 times as much carbon as in the air column above it, i.e., its capacity to ‘absorb’ [and release] CO₂ is considerable.

All of the excess atmospheric CO₂ accumulated over the past 75 years can be captured in agricultural soils by [‘Deep Organics’]-Keyline landscape design & management [as a one chance transition opportunity] involving:

- **subsoiling – plowing slightly off the contour – with an implement that minimises soil layer disturbance, to aerate, provide irrigation channels & store water;**
- **rotational grazing & keeping the ground covered with vigorously growing plants, to add OM to soil; &**
- **appropriate irrigation – alternating wet & dry periods – from suitably designed & managed farm dams.**

Paraphrased by Prof. Stuart Hill (Sept. 2005) from: Yeomans, Allan J. 2005. *Priority One: Together We Can Beat Global Warming*. Gold Coast City, QLD: Keyline (see also: www.yeomansplow.com.au).

CHARACTERISTICS OF HIGH FUNCTIONAL AGRICULTURAL DIVERSITY IN TIME & SPACE

Bio-ecological Diversity:

- Is a natural state within nature, in open ecosystems in resource-rich environments
- Bestows resilience on systems (less affected, recover faster)
- Is necessary for long-term sustainability (self-maintaining, self-regulating)
- Is associated with high negentropy (e.g., maturation, succession, evolution) & low entropy (e.g., minimal degeneration, decay, erosion)
- Permits cycling of nutrients; uses 'wastes'
- Increases resource use efficiency
- Reduces likelihood of accumulation of inhibitory & disruptive materials (e.g., pesticides)
- Has a higher incidence of cooperation (symbiosis, commensalism, mutualism)
- Is characterized by self-regulatory mechanisms.

Agroecosystem Design & Management Diversity means:

- Less acreage & capital required to enter agriculture
- Greater opportunities for creativity & experimentation
- Greater opportunities for increasing efficiency, raising total yield, preventing & controlling pests, conserving resources, reducing environmental impact & increasing resilience
- Greater opportunities for further co-evolution of agroecosystems.

Markets & Economics Diversity means:

- Reduced risk in the context of uncertainty
- Greater opportunities for diverse marketing & value added strategies (e.g., roadside stands, farmers' markets, U-pick, on-farm processing, wholesaling, contracting directly with consumers)
- Being highly compatible with the informal economy
- Being more responsive to changing demands
- Spreading workload & labour costs over many years; extends growing season
- Reduced input costs.

Human Needs Diversity:

- Permits meeting all food & fibre needs locally
- Is likely to link-farmer & consumer
- Landscape is aesthetically pleasing, stimulating, less boring
- Provides more rewarding & more diverse work opportunities, e.g., for all ages & skills
- Frees inputs for other uses.

Modified from: Hill, S.B. 1987. Diversification and agricultural sustainability, in D. Vail (ed.), *Sunrise Agriculture for the Northeast: Foundations for a Sustainable Agriculture in the Twenty-first Century*. Maine Agric. Exp. Stn. Misc. Publ. 694. Orono, ME: Univ. Maine. Pp. 89-106.

Shared – dare I call it - WISDOM

- Ask of all action – what is it in the service of? – before supporting or copying it
- Work mostly with ‘small meaningful achievable initiatives vs. ‘Olympic-scale projects (most are abandoned or fail)
- Don’t get stuck in ‘measuring studies’: ‘monitoring our extinction’ – designed to postpone threatening change
- For sustainable progressive change, enable their ‘good’ agendas vs. using missionary approaches (your ‘good’ agenda)
- Enable the potential of people, society & nature – so that wellbeing, social justice & sustainability can emerge
- Collaborate across difference to achieve broadly shared goals – don’t end up in a ‘sandbox’
- Don’t let ‘end point’/goal differences prevent possibilities of early stage collaboration
- Outcomes are only as good & sustainable as the people creating & implementing them – so start with the people!
- Use the media – let me repeat, use the media!
- Work with business & the public, government will always follow, but rarely lead!
- Celebrate publicly at every opportunity – to make the good stuff ‘contagious’
- Keep working on & implementing – especially with others – your (shared) benign visions
- Most of what is is unknown – which is what wise people are able to work with – so devote most effort to developing your wisdom vs. your cleverness, which is just concerned with the very limited pool of what is known
- So always be humble & provisional in your knowing & always open to new, especially transformational, learning
- Devote most effort to the design & management of systems that can enable wellbeing, social justice & sustainability, & that are problem-proof vs. maintaining unsustainable, problem-producing systems, & devoting time to ‘problem-solving’
- Work sensitively with time & space, especially from the position of the ‘other’
- Act from your core/essential self – empowered, aware, visionary, principled, passionate, loving, spontaneous, fully in the present (contextual) – vs. your patterned, fearful, compensatory, compromising, de-contextual selves
- See no ‘enemies’ – only feedback from (indicators of) woundedness, maldesign & mismanagement – everyone is always doing the best they can, given their potential, past experience & present context – the last two are the most important things to work with
- Be paradoxical: ask for help & get on with the job (don’t postpone); give when you want to receive; love what you want to hate
- Learn from everyone & everything, & seek mentors at every opportunity