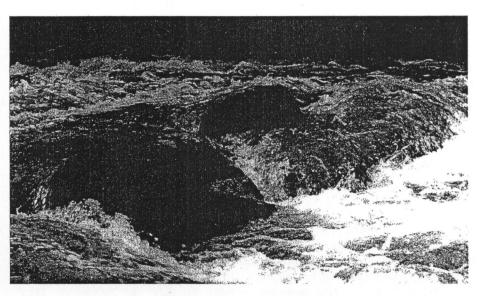
A Cooperative Inquiry into Deep Ecology

Esther Maughan and Peter Reason

he master's program in Responsibility and Business Practice at the University of Bath is an innovative management program addressing the integration of successful business practice with a concern for social, environmental, and ethical issues. It examines the complex relationship between business decisions and their impact on local and world communities and economies, on the environment, and on the workplace and helps participants develop management practices that are responsive to pressures for greater awareness in these areas.

Eight intensive, week-long workshops over a two-year period delve deeply into particular topics, building the course community as a community of inquiry. Workshop topics include the issues that surround the increasing globalization of world economy and culture; the way our economic theories and policies place value on certain activities and ignore others; the potential for corporations to act in sustainable ways and as good corporate citizens; and human needs at work, including the need for the discovery of meaning and spiritual practice.

When they designed the program, the team of staff members were adamant that although clearly a business program in a prestigious business school, it should attend to questions of meaning,



value, and spirit. In particular, students should be exposed to radical thinking about the nature of the planet Earth, the originator of all human and nonhuman wealth. We wanted to explore deep ecology (fig. 1) and Gaia theory (fig. 2), and, as far as it possible in the overcrowded British Isles, offer students a "wilderness experience"—an opportunity for a direct experience of the wildness of the natural world.

To this end, we teamed with colleagues at Schumacher College in Devon, and in particular with the resident ecologist Stephan Harding (Harding 1997, 2001; Harding and Lovelock 1996).² Together we designed a weeklong experience that includes lectures on deep ecology (see Devall and Sessions 1985; Naess 1989; Seed et al. 1988), Gaia theory (Lovelock 1979), and the state of the natural world, and also a lot of time outside. For example, we take participants on a night walk

through woodland and spend an afternoon meditating by the River Dart. We summon the Council for All Beings, a ceremony developed by John Seed and Joanna Macy (Macy and Brown 1998; Seed et al. 1988) in which diverse participants come to the council circle to speak of their concern for the world. And we spend a day hiking along the upper reaches of the River Dart, one of the last remaining stretches of wilderness in England. On this walk, we leave the footpaths to scramble over rocks and under branches, helping one another through bogs and over torrential streams. Under Stephan's guidance, we do deep ecology exercises: imagining how the world that we sense is also sensing us (Abram 1996); guiding one another in pairs on a blindfolded experience of the trees, rocks, and mud; identifying with a being in the natural world and exploring through imaginative meditation how this being is part of the cycles of Gaia.

Figure 1. The deep ecology platform.

- · All life has value in itself, independent of its usefulness to humans.
- · Richness and diversity contribute to life's well-being and have value in themselves.
- Humans have no right to reduce this richness and diversity, except to satisfy vital needs in a responsible way.
- · The impact of humans in the world is excessive and is rapidly getting worse.
- · Human lifestyles and population are key elements of that impact.
- The diversity of life, including cultures, can flourish only with reduced human impact.
- Basic ideological, political, economic, and technological structures must therefore change.
- Those who accept the foregoing points have an obligation to participate in implementing the necessary changes and to do so peacefully and democratically.

This version of the Deep Ecology Platform was formulated by those who attended the Deep Ecology course at Schumacher College, May 1995 (Harding 1997, 17).

Cooperative Inquiry

The M.Sc. program uses action research as a basis for learning; throughout the program there is an emphasis on inquiry processes and skills. The deep ecology workshop uses the format of cooperative inquiry (Heron 1996; Heron and Reason 2000; Reason, in preparation 2001), which is a form of collaborative action research practice—research with rather than on people (Reason and Bradbury 2000).3 In traditional research, the roles of researcher and subject are mutually exclusive. The researcher only contributes the thinking that goes into the project, and the subjects only contribute the action to be studied in a relationship of unilateral control. In cooperative inquiry, however, these mutually exclusive roles are replaced by a relationship based on reciprocal initiative and control, so that all work together as co-researchers and as co-subjects. For a truly human science of persons, those involved in the inquiry process must engage as people rather than as passive objects, contributing with awareness to both the ideas and the action that are part of the inquiry endeavor.4

A second fundamental assumption of cooperative inquiry is that our "reality" is subjective-objective and involves an extended epistemology. As human persons we participate in and articulate our world in at least four interdependent ways: experiential, presentational, propositional, and practical. *Experiential knowing* is a direct, face-to-face encounter with a person, place, or thing, knowing through empathy and resonance; *presentational knowing*, which grows out of experiential knowing, pro-

vides the first form of expression through story, drawing, sculpture, movement, and dance, drawing on aesthetic imagery. *Propositional knowing* is "knowledge about" and is expressed in concepts and ideas; and *practical knowing* is a combination of the other forms of knowing in action in the world (Heron 1992, 1996). The process of cooperative inquiry cycles through the four phases of reflection and action, in each of which a different way of knowing holds primacy.

In phase 1, a group of co-researchers come together to explore an agreed-on area of human activity. They agree on the focus of their inquiry and develop together a set of questions or propositions that they wish to explore. They then agree to undertake some action or practice that will contribute to this exploration, and they agree to a set of procedures by which they will observe and record their own and one another's experience. Phase 1 is primarily in the mode of propositional knowing.

In the deep ecology workshop, the focus of inquiry is part of the course

content. The questions posed for the week are What is the experience of deep ecology? and What activities and disciplines aid its development? Individual participants are invited to develop their own specific questions. The propositional knowledge on which the inquiry is based is the ideas about deep ecology and Gaia theory that Stephan offers.

In phase 2 the co-researchers also become co-subjects: They engage in the agreed-on actions and observe and record the process and outcomes of their own and one another's experience. In particular, the co-researchers are careful to notice the subtleties of experience and to hold lightly the propositional frame from which they started so that they are able to notice how practice does and does not conform to their original ideas. This phase primarily involves practical knowledge: knowing how (and how not) to engage in appropriate action, to bracket off the starting idea, and to exercise relevant discrimination.

Starting with the night walk that we take the evening that we arrive at Schumacher College, participants are invited to take part in the activities outlined earlier. As faculty we have designed activities through which students can bracket their preconceptions and engage with the natural world in novel ways—enter into relation with trees, walk on the earth as a living being, meditate with the river, speak as a slug or as an oak tree.

Phase 3 is in some ways the touchstone of the inquiry method. The co-subjects become fully immersed in and engaged with their experience. They may develop a degree of openness to what is going on that is so free of preconceptions that they experience things in a new way. Superficial understandings may be elaborated

Figure 2. Gaia.

Gaia Theory proposes two radical departures from the conventional view of life on Earth. The first proposal is that life profoundly affects the nonliving environment, for example, the composition of the atmosphere, which then feeds back to influence the entirety of the living world. The second emerges out of this tight coupling between life and nonlife. This "emergent property" is the ability of Gaia, of the Earth system as a whole, to maintain key aspects of the global environment, such as global temperature at levels favorable to life, despite shocks from within and outside itself.

This sort of ability, which scientists call "self-regulation," is exhibited by all living things According to this theory, Gaia is in some sense alive

How are we to relate to Gaia? We need to regain our ancient feeling for the Earth as an organism and revere it again. Gaia is a being of far greater vastness than ourselves, which we ignore at our peril. (Adapted from Harding 2001, 17–19)

upon and developed. Participants may diverge from their original ideas and proposals into new fields, unpredicted action, and creative insights. Phase 3 involves mainly experiential knowing. It will be richer if new experience is expressed when in creative presentational form through graphics, color, sound, movement, drama, story, poetry, and so on.

For many participants, living for a week in community in an area of amazing natural beauty, having time just to sit by a river, and being given permission to open themselves to the voice of the more-than-human world is of great significance.

In phase 4, after an agreed period of engagement in phases 2 and 3, the coresearchers reassemble to consider their original propositions and questions in the light of their experience. They may modify, develop, or reframe their propositions and questions, or reject them and pose new ones. They may choose to focus on the same or on different aspects of the overall inquiry. The group may also choose to amend or develop its inquiry procedures in the light of their new experience. Phase 4 is primarily the stage of propositional knowing, although presentational forms of knowing will form an important bridge with the experiential and practical phases.

Small groups will also work together each day on simple household tasks to maintain the ecology of the college. At the end of each day, they meet to review and make sense of their experiences. We invite participants to help one another articulate what has been important for them, to write reflectively, and to draw or otherwise create visual images.

In a full inquiry, the cycle is repeated several times. Ideas and discoveries tentatively reached in early phases can be checked and developed; investigation of one aspect of the inquiry can be related to exploration of other parts; new skills can be acquired and monitored; experiential competencies are realized; and the group itself becomes more cohesive and self-critical, more skilled in its work. Ideally, the inquiry is finished when the initial questions are fully answered in practice, when there is a new congruence between the four kinds of knowing. It is rare, however, for a group to complete an inquiry so fully.

The deep ecology workshop has three cycles of inquiry: a discussion of the philosophy of deep ecology followed by an afternoon in meditation with the River Dart; an introduction to Gaia theory and the state of the world followed by the Council for All Beings; and the day-long eco-walk down the River Dart with minitalks and exercises. Each cycle is followed by a review in small groups, and on the final morning, we meet as a whole group. Each participant receives a batch of post-it stickers and is asked to write three answers to each of the two inquiry questions: What is the experience of deep ecology? and How do you get there? Participants take turns presenting their answers to the group and place their stickers on a wall chart, trying to cluster them into meaningful groups. Our audiorecorded session forms the basis of this article. The reporting session was an energetic affair, full of laughter and tears.

Our purpose in using the cooperative inquiry model is twofold: (1) to empha-



size that the master's course is based on a process of mutual inquiry in which all learn; and (2) to formally introduce and teach the cooperative inquiry format so it will be available as an approach for course participants who want to use it in their own work. We used a form of the inquiry model in which we, as faculty, used our authority to structure much of the learning experience, rather than using a fully collaborative form. We believe it is appropriate to use our authority and experience in the service of learning while being open to feedback and comment from the group.

The Participants

Understanding something of the group's background may add resonance to some of the emotional experiences related later in this article and demonstrate the radical steps that many of us took away from our former paradigms and toward a new understanding of the world. The experience was more moving for some than for others.

We are a relatively diverse group of twenty-four individuals: ten men and fourteen women whose ages range from the early twenties to the late fifties, of nine nationalities, living in seven countries from Finland to Vietnam. We work primarily in the corporate sector, ranging from multinationals such as Rio Tinto and Barclays to independent consultancies, but we also work for nongovernmental organizations and local government. We found that deep ecology cuts across potential differences of gender, age, race, and nationality, indicative of the universality of the deep ecology experience to which we hope this account does justice.

The Experience of Deep Ecology

The experience of deep ecology started for most of us with a true appreciation, as if for the first time, of the simple beauty of the more-than-human world versus the human-made urban world that many of us live in. The experience is one of profound joy. It was expressed by one participant as "posthuman exuberance. When you sit on a rock and feel happy, it's not like when you're happy because you've had a birth-day present; it's a different, more profound sort of happiness." 5

Beauty in this sense is not merely aesthetic. Deep ecology is "awe at the proliferation and richness of living things" and at the more-than-human world's wondrous self-organization: Everything finds its own place; one plant seems to be in just the right spot—there's no other place it could be" (see fig. 3).

It was clear that for the city-based participants particularly, an obvious first step toward this experience was simply to "take time to be in the nonhuman world." We began to question why we

Figure 3. What is the experience of deep ecology?

- A feeling of joy and awe at the beauty of the more-than-human world
- An appreciation of the delicate balance between chaos and order
- The acknowledgment of the interconnectedness of all living beings, including ourselves, in the endless cycles of the planet leading to the direct identification of ourselves with other living beings and a redefinition of our place, no longer dominating nature but an equal part of it
- A sense of the consciousness of other living beings and the reciprocal relationship between us
- An experience both of the moment and of eternity
- A spiritual quest to reconnect with our true human nature and break down the artificial barriers we have erected
- · The feeling of homecoming
- · The celebration of the Creator

spend such a large part of our lives indoors in contrast to the week at Schumacher College when, on average, we spent half a day outdoors. We agreed, however, that to be in the more-thanhuman world is not enough unless we are truly open to experiencing its magic, not only through sight but with all our senses: "Deep ecology is about using my senses and my intuition to actually connect with what is happening with the rhythms of life; it's being still and touching the wonder." It was only through this intensity of focus, which felt difficult for some of us but easier for others, that we were able to cut through the weight of our preoccupations and preconceptions and experience the more-than-human world in a way that bypassed our reason and made connections at a deeper emotional level.

Many of us experienced deep ecology as a realization that every living thing, including ourselves, is interconnected through its role in endless natural cycles. The Council of All Beings was another way in which we developed this realization. As one participant explained: "I would like to invite everyone to try and identify with being a water molecule, because I found that the notion of water being present in everything is wonderful; it has really developed my understanding of interconnectedness."

We found beauty in "the wonder and

magic of nature's complex cycles." Through experiencing cycles of birth, death, and re-use, we became aware that "everything is related in one way or another." Deep ecology provides us with an "understanding of the intimate relationships which exist and which we have with nature as well." Our urban lives allow us to forget our "connectedness to the rhythms of the natural world." The experience of deep ecology returns us to our most fundamental context: "We are nature." One participant elaborated on this: "I thought the core experience was to actually feel myself as part of the natural world. I don't think we normally actually feel that."

This interconnectedness created in some a sense of perfect balance, so often missing in our own personal lives: "Deep ecology is the opposite of the unstable equilibrium that we try to live with. We've fallen over; we need to get back to the balance that we once had, where we could live life in a much richer and fuller sense." This idea of balance is inherent in natural cycles where nothing is ever wasted. One participant gave us the flippant yet sobering reminder that "we are recycled and should make the effort to treat our bodies well and so become good compost." For others, deep ecology was "the acknowledgment of order in chaos and chaos in order-when you can allow your conscious and subconscious mind to become aware of the controlled chaos of natural systems." This parallels the deep ecology experience, which was, for many of us, a turbulent one: "I feel like I've been sitting on the edge of chaos all week."6

This turbulent aspect of deep ecology was one that was particularly fostered by more formal scientific learning, that is, propositional knowing. Stephan's lectures were original and exciting, and his passion for cycles inspired us to see them at work outside the classroom. For some of us, propositional knowing is vital on the path toward the experience of deep ecology, if only because of its familiarity from traditional education. It was important to complement our experiential knowing with a more conceptual framework. One participant spoke of her "relief and excitement that there are now facts I can share with others." Another claimed: "I don't like math particularly; I hated statistics in my first degree. But I found through Stephan that I could actually see some beauty in mathematics." The importance of wise teachers and elders in the journey toward the deep ecology experience cannot be overemphazised.

A greater understanding, both rational. and intuitive, of the interconnectedness of nature's cycles leads us to re-evaluate our own roles within those cycles. The afternoon spent in quiet beside the River Dart highlighted this for one member of the group: "I really got a sense of the busyness of what's going on at a nothuman level. I had never before appreciated the rich detail of life's activity happening without any reference to us humans." The experience of deep ecology is therefore "to redefine what it means to be human. We are not dominant." Others experienced deep ecology in a similar way, as a "knowing of nature's secrets. They've been unlocked for me, and now I know that I am part of this experience and this is my story, too."

One participant expressed a commonly held view: "Before I came on this week I had my doubts because I always felt that I had an affinity with nature, but was outside nature, not necessarily a part of it. Now I see we're all equal parts of the same earth-there's the interconnectedness of one big family." Another participant agreed: "The essence of deep ecology is seeing yourself as a part, not as an observer, and so moving from knowing truths to feeling truths. It is still seeing, but it's also smelling, touching, feeling, and sensing—putting the whole of yourself into it. What was really powerful for me was putting myself in the place of another being and looking at myself in the mirror." Deep ecology is therefore the experience of personally "relating to everything." The transition from unengaged observer to engaged participant is paralleled in the approach of action research.

Deep ecology is about realizing "the dependency of all beings upon each other" and that "every living thing has a purpose." This leads to questioning one's personal sense of purpose and, ultimately, to a redefinition of one's personal identity. We discovered that "the experience of deep ecology is about the spiritual quest to really reconnect with our true human nature." This idea was expressed in other ways: "a journey of the self and a journey

to the self"; "realizing I have a role to play"; and "finding peace and inner self." There was a growing understanding that our human viewpoint is only one of many equally valuable perspectives. We also realized that the more-than-human world is responding and reaching out to us in turn. We had complementary experiences that melted the barriers between ourselves and other, nonhuman beings and gave us a heightened sense of the conscious, separate life of those beings.

One participant said that the weeklong experience of deep ecology had been one of increased self-worth and self-confidence: "My relationship with places and rocks and trees is often better than my relationship with people. One of the things I can do is to use deep ecology to be all right with me."

We found that our experience was particularly heightened by the exercises we did during our day-long wilderness walk. One participant spoke of "the blur between me and the moss I was touching; it was difficult to know where I ended and the moss began. Then there was the exercise where we really probed our surroundings. I almost felt like asking permission of this other living entity, 'May I?' and 'Should I?' and 'I've never done this before.' I really experienced a wonderful balance between the blur and the sense of otherness-in our existence, our relationships with the living world, our very being." This notion of otherness was also expressed in this way: "Now I know the earth and everything on it has a heart and has feeling."

Throughout the week we felt welcomed by the more-than-human world. Many of us shared one participant's feeling "of coming home, of being accepted by the place, as when I've had a really happy home-I've just walked in and been embraced." Someone described the experience of deep ecology as "a mutual 'letting-in-ness'-where nature lets you in on all its huge libraries of knowledge, and you are willing to be let in." Another participant admitted: "I've now recognized that I've got everything I've ever asked for whenever I've gone to my special place to try to work things out. I might not have realized it at the time, but it's all been there for me to take."

We spoke of our surprise and pleasure at this—that the more-than-human

world was soft and sensuous rather than painful and frightening, as we are sometimes brought up to believe. But it was only through "active, strenuous, physical engagement with the more-than-human world that these experiences were made possible—by fitting yourself into the nooks and crannies." One group member referred to the artificial barriers we erect between ourselves and the more-thanhuman world when she said: "Walking along the river, particularly the clambering, reminded me how neat and tidy we are invited to keep ourselves and how we never exert ourselves or get dirty. There are all sorts of things we don't do, which stop us from making the connection to the bigger picture."

This breaking down of both physical and emotional barriers—"allowing the armor or uniform to fall away"—is vital for achieving the deep ecology experience. A developing sense of the reciprocal relationship between ourselves and the more-than-human world led some of us to begin a new kind of dialogue. One group member spoke emotionally of his personal route to the deep ecology experience: "Take your poor battered heart into the wilderness. And when you're there, you listen to the wind, and you ask and you listen, and you ask and you listen—and that's how you get there."

Throughout the week, we explored the Gaian concept of the living world as a single conscious entity able to express emotions such as happiness. Whether we chose to interpret this literally or metaphorically, we shared a participant's view: "Something that's been moving for me is that, having talked about qualities, I really got the notion of a happy wood. I really understood it when Stephan pointed out that it was so diverse and full of life and abundant and growing. I think all the billions we spend on tourism and holidays show how we are yearning for this kind of happiness, but actually we destroy it at the moment in our yearning." A group member brought together the ideas of a conscious world and a reappraisal of personal identity in "the notion of the ecological self . . . We humans are one of the parts of the universe which is conscious of itself, so we are the universe looking at itself."

One theme that is raised throughout the M.Sc. program is that of time scales-from the short-term-ism of shareholders' expectations to long-term visions of a new society. The week at Schumacher prompted further consideration of this theme. Deep ecology is about "experiencing the moment fully and being deeply connected to what's going on." This notion of being fully present in and engaged with the moment is also central to action research. It is a practice many of us find hard to do during the self-imposed haste of our lifestyles. The way to achieve this experience of deep ecology is therefore to "be still, be silent, and appreciate the moment for its intrinsic value." A group member elaborated on this quality of the deep ecology experience: "I experienced the moment rather than thinking 'What have I been doing?' and 'What am I going to do?' I was aware that I was just deeply connected with what was going on. But somehow, in that moment, I could perceive the past and future; I could see the past in that I could see where the rocks had come from; I could see the future in the sense that I could see where the river was going, and for me time did seem to stop."

On the other hand, deep ecology provides "a sense of eternity, which is a big issue for a lot of people; they are concerned about how their memory will survive and whether they will leave a mark." Deep ecology "is timeless, so it's the past, the present, and the future; and we need to understand all of them and explore the future in order to take ourselves there."

The eternal quality and beauty of interconnected cycles and individual living beings led many of us to explore the spiritual nature of the deep ecology experience. One participant explained how the week at Schumacher clarified her beliefs: "Years ago, when people used to say to me 'Are you religious?' or 'What's your faith?' I never had one. I was never able to say anything except 'Well, the only sense I've got is that I believe in nature.' That was when I started to realize that spirit is all around me. Deep ecology for me is about understanding nature, about understanding the bigger picture; it's about the spirit that's all around me, and it's in everything and everyone." For those of us who are Christians, deep ecology provided "a

language and a means of meeting and celebrating the creator of all things."

Deep ecology also gives individuals a sense of purpose in a spiritual context. as described by one participant, who assumed the nature of a kestrel during the Council of All Beings: "I began to think about my kestrel, and I was beginning to wonder what the purpose of a kestrel is. Yes, it controls small animals so they don't overrun. But in a way the purpose of a kestrel is to sense freedom, to enjoy the sense of freedom. And I think that as you become more sentient you have a greater purpose to enjoy the senses that you have; and you enjoy those senses on behalf of creation, or creator; and for me personally, that is God."

Taking Deep Ecology into Our Everyday Lives

Inevitably many other questions arose in connection with our new experience, but the most pressing was, How do you take it away and keep it for yourself? Most of the group agreed that the deep ecology experience "takes effort to allow into our lives and requires mental and spiritual preparedness. We're not all going to have Aldo Leopold7 moments, in which we suddenly form a connection with the nonhuman world that instantly and permanently transforms our way of thinking." "We're so distanced from nature's cycles. Some of us are distanced from them scientifically, as we don't know the facts, and some of us are distanced from them because we just don't spend enough time outside" (see fig. 4).

A solution to these difficulties was to continue practices such as creative thinking, meditation, and freefall writing, which some of us were introduced to during the week: "There has to be a yearning for this approach to become part of our skill, part of our practical knowledge. I think that's very important because we will be making our own cycles in our lives, and we must introduce interconnectedness of thinking there, too."

Another problem to be overcome is our self-consciousness and concern about others' judgments—something that many of us were acutely aware of at the beginning of the week. One participant who discovered his ecological self in a particularly emotional way admitted: "People were saying to me last Fri-

day when I was going on this course, 'that's the tree-hugging part of the course. You'll be flapping around and free-associating.' And I thought 'Absolutely no chance; no way will I be doing any tree-hugging.' How wrong was I!" By the end of the week, however, we all felt more at ease with this issue as one group member admitted: "I don't really care now if people think I'm completely mad, sitting in the middle of a field on my own, reflecting, in silence."

One thing on which we all agreed was the importance of striving to help others experience a similar transformation: "I feel very strongly that deep ecology is not about a club. It shouldn't be a secret or the privilege of a few; it's about rolling it out. making it accessible, so it becomes an experience for the many." For some, the experience of deep ecology was essentially about "getting engaged to a movement to create new thinking and to provide a new way of providing solutions to a society in search of trust." The transformative power of simply sharing the deep ecology experience with other members of the group was also noted: "I really enjoyed sharing everything with the group; this was what helped me to feel a lot better about myself." Another group member highlighted how the blindfold exercise fostered trust at an individual level. For another: "The experience of how to get there is, for me, through overcoming loneliness and through fellowship."

Ultimately to maintain the deep ecology experience requires "a commitment to the choice to live in a certain way." We agreed that "deep ecology is not a skindeep thing. It's not about putting on a pair of boots and walking outside. It's really a deep change, a deep commitment throughout one's life, based on fact and a sense of spiritual awakening." This deep

change involves "acting on newfound responsibilities" so that "we begin to treat the earth as we would treat ourselves." One participant expressed it in this way: "For me, the week has first of all been about realizing my place in all this, which I'm not sure I did before, and then, along with realizing my place, realizing my responsibilities for being in that place." This could take the form of a reappraisal of what is truly important and valuable in our lives and of "living gracefully": "Deep ecology is about remembering our vital needs and finding freedom in those vital needs." When combined with a shared experience of deep ecology, this could lead to a "collective experience of responsibility for the many."

The deep ecology experience was an emotional one for all of us, ranging from joy to confusion, to frustration, to sorrow. Our busy week demonstrated that there is no single path to the experience of deep ecology; practices and exercises that work for one individual may leave another cold. It is for that reason that planning the cooperative inquiry and an acknowledgment of the four ways of knowing are so important. As one participant said: "I felt I was being invited to approach this in any way I liked, and there was no demand for me to feel this or believe that, either spiritually or rationally. It was more about finding your own way." The fact that there are so many ways to achieve the experience of deep ecology gave us all a sense of optimism, which is sometimes missing in this course, dealing as it does with the catastrophes we have brought about because we falsely place ourselves outside the more-than-human world. "I believe that deep ecology is an incubator for a new value system. Being able to reach people through both heart and

Figure 4. What activities and disciplines aid its development?

- Spending time outside, preferably in the wilderness, in a state of openness
- Physically engaging with other living beings, which requires us to abandon our cultural preconceptions and overcome negative emotions such as embarrassment and cynicism
- · The guidance of inspirational teachers and wise elders
- Being alone and/or having the support of a likenfinded group—it varies for different individuals
- · Personal practices such as meditation and freefall writing
- A combination of the many ways of knowing, both emotional and rational, and an acknowledgment that different individuals will take different paths to the experience
- Ongoing effort and commitment to integrate the deep ecology experience into our lives and be aware of our responsibilities to the more-than-human world

intellect gave me a sense of hope. There's potential with this approach. We could actually reach anybody; how can someone say no to this as long as we're not pushing it and saying 'You must feel it in this way and not that?' I don't know if anybody can turn it away."

It is important to the future we share with all living things that we do not turn away from our roots in the natural world that we can experience through experiences of deep ecology.

ACKNOWLEDGMENT

We would like to thank the participants on Intake Four, M.Sc. in Responsibility and Business Practice for their participation in the weeklong experience of deep ecology at Schumacher College. A selection of their comments and insights are shared in this article.

NOTES

- 1. This article is based on a cooperative inquiry process involving all the members of this course. The conclusions of the inquiry have been prepared for publication by Esther Maughan, a member of the group, who undertook the work of sorting the tape transcript into categories, selecting quotes, and composing the text; and Peter Reason, who wrote the introductory material. The article has been seen by and agreed on by the members of the course. A full course description describing both the content and the education process can be seen at http://www.bath.ac.uk/management/carpp/msc.htm.
- 2. Schumacher College is an international center for ecological studies offering a range of educational opportunities, including short courses and an M.Sc. in holistic science (www.gn.apc.org/schumachercollege/).
- 3. Complete information about these inquiry processes can be found at http://www.bath.ac.uk/management/carpp>.
- 4. Cooperative inquiry has been used to explore a range of issues, including race and gender in organizations (Bryan 2000; Douglas 1999); leadership in the police force (Mead, in preparation 2001); holistic medical practice (Heron and Reason 1985; Reason 1988, 1991, 1999; Reason et al. 1992); transpersonal experiences (Heron 1998); organization culture (Marshall 1988); social work (Baldwin 2000); midwifery (Barrett 2000); nurse education (Hills 2001); young women managers (McArdle, in preparation 2001).
- 5. All words in quotations are taken from the audiotape of the group's reflection at the end of the workshop.
- 6. The language on chaos and complexity was influenced by a talk by Brian Goodwin (see Goodwin, 1999a; 1999b).
- 7. In the Sand County Almanac, Leopold describes the moment of illumination that leads him to "thinking like a mountain."

Employed to exterminate wolves, he writes of gazing into the green eyes of a dying wolf he has just shot: "I thought that because fewer wolves meant no deer, that no wolves would mean a hunter's paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view" (1949, 129–33).

REFERENCES

- Abram, D. 1996. The spell of the sensuous: Perception and language in a more than human world. New York: Pantheon.
- Baldwin, M. 2000. Working together, learning together: Cooperative inquiry in the development of complex practice by teams of social workers. In P. Reason and H. Bradbury, eds. *Handbook of action research: Participative inquiry and practice*. London: Sage.
- Barrett, P. A. 2000. The early mothering project: What happened when the words "action research" came to life for a group of midwives. In P. Reason and H. Bradbury, eds. Handbook of action research: Participative inquiry and practice. London: Sage.
- Bryan, A. 2000. Exploring the experiences of black professionals in welfare agencies and black students in social work edu-cation. Unpublished Ph.D. diss., University of Bath, Bath.
- Devall, B., and G. Sessions. 1985. *Deep ecology: Living as if nature mattered.* Salt Lake City: Gibbs M. Smith.
- Douglas, C. 1999. From surviving to thriving: Black women managers in Britain. Unpublished Ph.D. diss, University of Bath, Bath.
- Goodwin, B. C. 1999a. From control to participation via a science of qualities. *ReVision* 21(4): 26–35.
- ——. 1999b. Reclaiming a life of quality. Journal of Consciousness Studies 6: 11–12, 229–35.
- Harding, S. P. 1997. What is deep ecology? *Resurgence* 185: 14–17.
- ——. 2001. Exploring Gaia. *Resurgence* 204: 16–19.
- Harding, S. P., and J. E. Lovelock. 1996. Exploiter-mediated coexistence and frequency dependent selection in a numerical model of biodiversity. *Journal of Theoretical Biolology* 182: 109–16.
- Heron, J. 1992. Feeling and personhood:

 Psychology in another key. London: Sage.

 ———. 1996. Co-operative inquiry: Research into the human condition. London: Sage.
- ——. 1998. Sacred science: Personcentred inquiry into the spiritual and the subtle. Ross-on-Wye: PCCS Books.
- Heron, J., and P. Reason. 2000. The practice of cooperative inquiry: Research with rather than on people. In P. Reason and H. Bradbury, eds. *Handbook of action research: Participative inquiry and practice*, 179–88. London: Sage.
- ——. 1985. Whole person medicine: A

- cooperative inquiry: British Postgraduate Medical Federation, University of London
- Hills, M. D. 2001. Co-operative inquiry: Transforming clinical evaluation. In P. Reason and H. Bradbury, eds. *Handbook* of action research: Participative inquiry and practice. London: Sage.
- Leopold, A. 1949. *A Sand County almanac:* London: Oxford University Press.
- Lovelock, J. E. 1979. *Gaia: A new look at life on Earth.* London: Oxford University Press.
- Macy, J. R., and M. Y. Brown. 1998. Coming back to life: Practices to reconnect our lives, our world. Gabriola Island: New Society Publishers.
- Marshall, J. 1988. Reflection in action: Exploring organizational culture. In P. Reason, ed. *Human inquiry in action:* Developments in new paradigm research. London: Sage.
- McArdle, K. In preparation, 2001. The beginning. Systemic Practice and Action Research 14(6).
- Mead, G. (in preparation, 2001). Developing ourselves as leaders: How can we inquiry collaboratively in a hierarchical organization? Systemic Practice and Action Research 14(6).
- Naess, A. 1989. *Ecology, community and lifestyle*. Cambridge: Cambridge University Press.
- Reason, P. 1988. Whole person medical practice. In P. Reason, ed. *Human inquiry in action*, 102–26. London: Sage.
- ——. 1991. Power and conflict in multidisciplinary collaboration. Complementary Medical Research 3(3): 144–50.
- ——. 1999. General medical and complementary practitioners working together: The epistemological demands of collaboration. *Journal of Applied Behavioural Science* 35(1): 71–86.
- operative inquiry. In J. Smith, ed. Qualitative psychology: A practical guide to methods. London: Sage.
- Reason, P., and H. Bradbury, eds. 2000. Handbook of action research: participative inquiry and practice. London: Sage.
- Reason, P., H. D. Chase, A. Desser, C. Melhuish, S. Morrison, D. Peters, D.
- Wallstein, V. Webber, and P. Pietroni. 1992. Toward a clinical framework for collaboration between general and complementary practitioners. *Journal of The Royal Society of Medicine* 86: 161–64.
- Seed, J., J. R. Macy, P. Fleming, and A. Naess. 1988. *Thinking like a mountain*. London: Heretic Books.

Esther Maughan is a consultant on sustainable marketing and the editor of *The Future of Brands* (2000). Peter Reason is Reader in organizational behavior, director of the Centre for Action Research in Professional Practice, University of Bath, and co-editor of the *Handbook of Action Research: Participative Inquiry and Practice* (2000).