

habitation are the same so far as taxation is concerned (which is untrue since marriage creates mutual and financial responsibility and co-habitation does not). On another plane, many "smelt" the wealth which could be acquired by "sliding" morality into legality, which has been done. And if the effects of such changes are questioned by environmentalists, we are immediately accused of destroying employment, debasing a community, wrecking an industry, weakening the economy, etc., etc. The god of Mammon rules!

But once we accept the fact that three commandments are necessary to state the moral relations between God, human beings, and the rest of creation, the situation becomes clearer. We are responsible not only for ourselves, not only to our fellow human beings, but also to the wonderful creation of God, neither more nor less. Without this moral base, how can anyone hope to define, guide, and lead on to a sustainable Earth? Trees do not need lawyers to defend them (to demand this is to accept an inadequate definition of the situation). Trees exist in their own right, just as we do, again neither more nor less. Their freedom is our freedom. We can be destroyed just as they can. The real difference is that we can destroy each other as well as trees, but trees can only do this indirectly; and if a tree does fall on someone, it is not a conscious act. All ecosophical arguments come down to something like this in the end. But without a moral

basis, they can only be argued, not resolved. For this, we need the Third Commandment to ground Nature - the environment - within the morality of God!

The last question is: Can the Christian Church proclaim the Third Commandment? Will it proclaim the Third Commandment, and when? And if not, must we therefore proclaim it ourselves?

Put formally, we can now state that the two Christian commandments form an incomplete set; a third commandment is required to complete them.

Notes

1. Taylor, Duncan, "Nature as a Reflection of Self and Society", *The Trumpeter*, V. 7, No. 4, 174-176 (1990).
2. McFague, Sallie, 1988. *Models of God: Theology for an Ecological, Nuclear Age*. Fortress Press, Philadelphia.

About the author: **Clive Simmonds** was born in the U.K., spent his early vacations on the coast of Norfolk and later climbing in Wales, Scotland, the Alps and Norway. He holds degrees in chemistry and sociology and is a qualified chemical engineer in the U.K. He has been actively involved in forecasting, futures and foresight, since 1956, and is now with Futurescan International in Ottawa, Canada.

DEEP ECOLOGY AND ITS CRITICS: A BUDDHIST PERSPECTIVE

Bruce A. Byers

Are environmentalists "anti-human," "reactionary misanthropes?" Are proponents of the philosophy supporting the deep ecology movement "anti-rational," "airy mystics?" These charges are made in a recent article by "social ecologist" Murray Bookchin titled "Will Ecology Become 'the Dismal Science'?" (*The Progressive*, December 1991), in which he derides the deep ecology movement. Bookchin's article is only one example of a growing backlash against the environmental movement and its philosophical foundations. New organizations, such as the Wilderness Impact Research Foundation of Elko, Nevada, have been founded to oppose "preservation" and promote human use of nature, following some bitter disputes about environmental conservation - about the spotted owl and logging of the remnant ancient forests of the Pacific Northwest, and about oil drilling in the Arctic National Wildlife Refuge, for example.

What about the charge that environmentalists are misanthropes? This charge is simple to refute.² Bookchin understands correctly that the deep ecology movement promotes an **ecocentric** perspective and rejects **anthropocentrism**. **Ecocentrism** recognizes that other species, and even whole ecosystems, have an **intrinsic** value and right to existence apart from any "instrumental" or "use" value they may have to humans. As Aldo Leopold, the pioneer American ecologist and ecophilosopher said, an ecocentric view "changes the role of **Homo sapiens** from conqueror of the land-community to plain member and citizen of it." **Anthropocentrism**, in contrast, is a hierarchical view in which humans are assumed to be the pin-

nacle of evolution, and of greater value than any other species. But to equate ecocentrism with misanthropy, as Bookchin and other "use" advocates often do, is a complete misunderstanding. In fact, deep ecology movement philosophers argue that if you really love humans you **must** love and defend the biosphere that is their only home.

Chico Mendes, the Brazilian peasant who was murdered because he organized rubber tappers and other forest people to nonviolently oppose the cutting of the rainforests upon which their lives depended, is sometimes portrayed as a true "tree hugger," willing to give his life to defend the forest. This is a misunderstanding of Chico Mendes. His real wisdom was to recognize that one cannot be a "people hugger" **without** being a "tree hugger," and vice versa. We can protect the environment only by finding ways for people everywhere to earn a living in an ecologically-sustainable fashion; we can love and serve people only if we protect the whole ecological community that sustains them. On an endangered Earth, anthropocentrism can be misanthropy, if it promotes further ecological degradation.

Why must we be ecocentric in order to love and protect humans? One answer flows naturally from the Buddhist view of "dependent co-arising" or "dependent origination" (**paticca samupadda** in the ancient Pali language of the Buddhist canon) and its metaphor from the Avatamsaka Sutra, the Net of Indra. Because of the net-like, interdependent structure of reality - what Thich Nhat Hanh calls "interbeing" - what we do to the natural world, we ultimately do to ourselves.

Ecology and evolution provide concrete evidence of the interdependence or "interbeing" of ecological communities so clearly expressed in Buddhism. Nutrient cycles show this clearly. For example, animals take in oxygen from the air in order to release the energy from their food, and in the process create and release carbon dioxide; plants use carbon dioxide in the process of photosynthesis, and release oxygen as a waste product. So there is complementarity, interdependence, between plants and animals. Food chains and food webs, metaphors for the flow of energy through ecosystems, also illustrate this interdependence. A food-web diagram of a species-rich ecosystem like a tropical forest or coral reef provides a beautiful image of the Net of Indra.

Evolution, over aeons of time, has shaped interdependent and sometimes even cooperative relationships within ecological communities. Predators and their prey are clearly shaped by these evolutionary forces. Wolves and mountain lions, for example, are responsible for the fleetness and grace of deer; and deer are responsible for the ferocity and stealth of their predators. Insect-eating birds are responsible for the beautiful camouflage of moths; and moth camouflage is responsible for the sharp vision of birds. Parasites and their hosts also can co-evolve relationships of mutual dependence; relationships that begin as harmful to the host and beneficial to the parasite seem often to evolve into relationships that are mutually beneficial. Lichens, reef-building corals, and the nitrogen-fixing bacteria that live in the root-nodules of legumes may all be examples of this coevolution of cooperation. The mitochondria found in the cells of all plants and animals - humans included - may be examples also.

If we took seriously the idea that ecocentrism was the way to love and protect people, how could we best protect the jobs of loggers in the Pacific Northwest and the economies of the logging communities they support, not to mention supplying the needs of the rest of us for affordable building materials, paper, and other forest products? By making certain that logging is an ecologically sustainable economic activity - otherwise we would condemn loggers, or their children, to the economic collapse of their means of livelihood. Developing forestry practices that are ecologically sustainable in the long term probably requires that we protect the last relict stands of old growth forests. They are a natural ecological laboratory in which forest ecologists can study, and perhaps come to understand (which they do **not** now), the complex processes that make forests sustainable. These ancient forests are also a repository of genetically diverse trees, which could allow future forests to adapt to changes in climate, or outbreaks of new pests or diseases. People employed by the "forest products industry" take it as a matter of faith that tree "farming," which replaces a complex forest ecosystem with a genetic monoculture of nursery-bred trees, is ecologically sustainable, but there is no history to prove that it is. The spotted owl, marbled murrelet, and other endangered species of the ancient forests of the Pacific Northwest should be seen as the "miner's canaries" of the logging industry, warning of imminent danger if we continue to mine out the old growth.

How could we best love and support the native people of the Arctic National Wildlife Refuge area, some of whom **want** oil development? Certainly not by getting them hooked on the short-term economic benefits of an extractive, oil-based economy, but by encouraging them to maintain the health of their traditional, sustainable subsistence economy based on hunting caribou, birds, seals, and other sea mammals, and fishing.

These examples may give the impression that I am arguing for preserving other species and the "land-community" because of their instrumental value to people - to provide renewable food or forest resources, as a repository of genetic diversity, as a laboratory where scientists can learn about ecological sustainability, or as an early warning system to warn humans of ecological collapse - rather than for their **intrinsic** value. The Buddhist perspective of interbeing suggests that the distinction between the intrinsic and instrumental values of nonhuman species, a distinction so often debated by ecophilosophers, is based on too narrow a view of reality. The distinction between intrinsic and instrumental value blurs when the view of "self is widened from an "ego-self to an "eco-self."

What of Bookchin's second major charge against the deep ecology movement and supporters, that it is "mystical" and "anti-rational?" He calls supporters of the deep ecology movement "airy mystics" - using that phrase in the derogatory sense of vague or obscure thinking or belief, with no solid foundation - and charges that they are anti-rational, anti-scientific, and anti-technological. Bookchin writes:

Mystical ecologists, like many of today's religious revivalists, view reason with suspicion and emphasize the importance of , irrational and intuitive approaches.... Spirituality and rationality, which mystical ecologies invariably perceive in crassly reductionist and simplistic terms, are pitted against each other as angels and demons. The mystics usually regard technology, science, and reason as the basic sources of the ecological crisis, and contend these should be constrained or even replaced by toil, divination, and intuition.

In the Environmental Studies Program at the Naropa Institute we emphasize that science is a natural human process, and that its foundation is the fresh, immediate, direct experience and observation of nature, untainted by preconceptions. This experiential foundation is shared with the arts. The well-known Writing and Poetics Program at Naropa, for example, is distinguished by an attempt to "investigate the creative process involved when language directly and accurately confronts original perception." Training in mindfulness and awareness, through meditation and other contemplative practices, enhances the creative process of both science and art; in turn, the study of nature can enhance mindfulness and awareness. Non-scientists may be unfamiliar with this view of science, and indeed may think of science as detached, preconceptualized data-gathering - almost the opposite of fresh, immediate experience. My experience as a practicing field ecologist convinces me that mindful observation is the heart of scientific creativity, however.

The first transmission of Zen is said to have occurred when the Buddha, before saying a word, held up a flower and twirled it. His disciple Maha-Kashyapa understood, and smiled. This incident could stand as a symbol of the first transmission of ecology and of deep ecology principles, as well as of Zen. Flower!

The pure, mindful experience of nature leads naturally to a personal, emotional relationship with nature. Some people might describe this kind of relationship as "mystical" or "spiritual." In attempting to conceptualize and describe direct experience, however, we must choose and use words carefully. We should be careful to say that direct experience (flower!) is purely natural, not "supernatural," "spiritual," or "mystical" in any **dualistic** sense of those words.

But Bookchin's charges alert us to a potential danger: If not done carefully, "Earth spirituality," "Earth prayers," "vision quests," and the like **can** take us **away** from the direct experience of nature.

A personal experience reminds me of this problem. Last summer there was a partial solar eclipse where I live. During the eclipse, I noticed that each individual "dapple" in the sun-dappled shade of an old cotton wood was shaped like the crescent of the partially-eclipsed sun. I realized then that I had **never noticed** that "ordinary" sun-dapples are perfectly round images of the sun. I had never really been aware of sun dapples until that moment! It was a fresh and delightful "aha!" experience, connecting me with Earth, sun, place, and the present moment.

During the eclipse my eight-year-old daughter had been with a group of children on a sort of environmental retreat, camping in the woods in a tepee. The leader knew of the eclipse, and had planned to help the children project the sun's image so they could watch it safely. When my daughter returned, I was surprised to find that they had forgotten all about it! "Oh," said the adult leader, "we were too busy setting up a medicine wheel and saying Earth prayers; we completely forgot about the eclipse."

To the extent that "Earth rituals," "Gaian spirituality," and "eco-theology" take us into our own words, concepts, and heads, and distract us from **direct experience** of Earth, they aid and abet anthropocentrism. To the extent that they reinforce a dualistic view of spirit **versus** matter, mind **versus** nature, or reason **versus** intuition, they are also anthropocentric projections onto non-dual reality. Done with sensitivity, however "Earth prayers" can **remind** us of our connection with Earth. Bookchin's charge of airy mysticism and anti-rationality may be true for **some** expressions of what he calls "Gaian consciousness and eco-theology." But these have little in common with recognized supporters of the deep ecology movement.

"Mystical ecology," Bookchin's term for deep ecology, is a contradiction in terms. Ecology is the **science** of ecosystems, and cannot be "mystical" in his pejorative sense of a "vague, airy belief." Nor is the deep ecology movement "mystical" in that sense. The deep ecology movement is supported by philosophers

who begin with the fundamental facts and principles of ecological science (facts such as **interdependence** and **diversity**) and then proceed to ask "deeper" questions than the scientific method can - questions about values, ethics, and social and political action. Ecological facts become fundamental values or norms for these philosophers supporting the platform principles of the deep ecology movement. So in no sense are they anti-rational or anti-scientific - quite the contrary.

For those of us who strive to live our lives as part of an ecocentric community - a whole-Earth "sangha," to use the Buddhist phrase for community or fellowship - it is important to challenge the critics who claim that the deep ecology movement is misanthropic and "mystical." The deep ecology movement's ecocentric compassion is based on an ethic of interbeing; its this-worldly groundedness fits well both with science, and with Buddhism's emphasis on non-duality and direct experience.

Notes

1. I use the term for philosophers supporting the deep ecology movement synonymously with "transpersonal ecology," an alternative name for this philosophy and philosophical/social/political movement suggested by Warwick Fox in **Toward A Transpersonal Ecology** (Shambala: Boston & London, 1990).
2. Bookchin has been bringing these charges of misanthropy against deep ecology since 1987, and they have been addressed by a number of proponents of deep ecology; interested readers should see Warwick Fox's **Toward A Transpersonal Ecology** and references cited therein.
3. Quoted from a brochure describing the Writing and Poetics Program at Naropa.

About the Author: **Bruce A. Byers** has a Ph.D. in Ecology and Evolution from the University of Colorado. He is Director of a new Environmental Studies Program at the Naropa Institute in Boulder, Colorado, a program that combines the study of ecology, anthropology, and horticulture in an integrated curriculum and emphasizes the ecocentric perspective of the deep ecology movement. The Naropa Institute is a nonsectarian college with a Buddhist-inspired educational philosophy of contemplative education.

THE BUDDHIST PERCEPTION OF NATURE: IMPLICATIONS FOR FOREST CONSERVATION IN THAILAND

Laura Kay Johnson

The world grows smaller and smaller, more and more interdependent...today more than ever before life must be characterized by a sense of Universal Responsibility not only nation to nation and human to human, but also human to other forms of life. (His Holiness, The Dalai Lama)

The purpose of this paper is to review the literature on the Buddhist perception of nature in order to determine the role of Buddhist doctrine and practice in the conservation of natural resources. In Thailand, various NGO groups, Buddhist monks and academics believe that Buddhist values are a positive force

in nature conservation. This paper will examine several case studies where Buddhist values are being revitalized in an effort to conserve natural ecosystems and to increase self-reliance for rural villagers.

The foundation of Thai society is Buddhism and this holds for the farmers who make up the majority of the population. Buddhism is an integral part of life in Thailand. The exact date Buddhism arrived in Thailand has not yet been determined, but evidence indicates that it has been around at least since the 13th century. Buddhism and Hinduism together have had influence in Thailand. "Buddhism was transmitted to Thailand not as a