Mādhyamaka, Tantra and "Green Buddhism"

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My first encounter with the term "Green Buddhism" was in a book published in 1990 called *Dharma Gaia.* It primarily is made up of writings from the late '80s. These writings cover a range of topics and attitudes, but what they make quite apparent is that there is a tremendous similarity between dharmic and ecological attitudes. In fact, from reading the articles in the book, one could easily come to the conclusion that a sort of nonpersonified concept of Gaia was prefigured in the Dharma, though the dharmic sense of living systems seems not to actually articulate a specific "organism" of the whole (i.e., Gaia) nor does it postulate any notion of "self-regulation."

In this article I will be developing this notion that a sort of Gaian consciousness exists in the Dharma by looking at some concepts and practices articulated during the early and middle periods of Buddhism which might form the doctrinal foundations for Green Buddhism. I believe that not only does such an exercise have some merit on its own as part of the development of a Green Buddhism, but also such an exercise has a broader value. This is because I believe that the ecologically oriented teachings in the Dharma will form an important aspect of the American Buddhism which is still in the early stages of its unfoldment.³

Some preliminary work in this direction can be found in *Dharma Gaia*. Joanna Macy has written what I consider the key article in the collection: "The Greening of the Self." She links the concepts of selflessness and dependent origination (or interdependence) with the systems theoretical view which stands at the heart of ecological thinking. In this approach I believe that she has begun to articulate the two key theoretical points

of juncture between the Dharma and ecology: dependent origination (pratityasamutpāda) as the ontological basis of linkage between the two world views and selflessness (anātman) as the psychological basis of linkage between the two world views. What is missing in her article is transformative practice. In other writings she articulates practice in the form of compassion and social action (for example, throughout World as Lover, World as Self) but does not suggest a program for the transformation of mind and perceptions. I will present such a program in the course of this article.

As a point of emphasis, to indicate the significance of the concept of "selflessness" for linking Dharma and ecology, let us note Macy's quoting of Gregory Bateson, who has said that the conventional notion of the self is the "epistemological error of Occidental civilization." I would expand this statement to say that the Western emphasis on competitive individuality under the power of the false reification of the self and belief in the independence of the self has led us directly into the ecological crisis. I would also propose that this notion of "false reification of the self" to which Bateson refers in his writings is equivalent to the Buddhist notion of "grasping at selfhood."

Reification is, of course, taking a concept for a thing; and no-thing-ness, which is a meaning of selflessness, is what Mādhyamaka seeks to demonstrate. "Self" is the generic concept for entityness, or thingness, so no-self means nothing. The Tibetan Mādhyamaka argument for selflessness is that no self-nature can he found in any phenomenon because all phenomena exist in dependence on causes, in dependence on constituent parts and particles, and in dependence on imputation by a name. More specifically, this latter

refers to underestimating or overestimating the characteristics of phenomena, that is, seeing phenomena as more or less than what they are. The "more" or "less," in regards to "the false reification of the self," is cognizing permanent, independent entities rather than transitory interdependent appearances merely created by a conceptual process which cuts a pattern out of its background and imputes or projects qualities onto it (such as "thingness") which emerge from the cognizing subject rather than the cognized object. This is false reification, and while the Buddha indicated the danger of this process in creating suffering, Bateson has pointed out how the process has endangered the very earth itself. Here I add the problem of competitive individuality rooted in a belief in the fundamental independence of self because it is the linking of competitiveness to the false reification of the self (and the resultant exploitation of resources) which has transformed mere self-destruction into planetary destruction.

As Macy says, "The crisis that threatens our planet, whether seen from its military, ecological, or social aspect, derives from a dysfunctional and pathological notion of the self. It derives from a mistake about our place in the order of things. It is a delusion that the self is so separate and fragile that we must delineate and defend its boundaries, that it is so small and needy that we must endlessly acquire and endlessly consume, and that it is so aloof that as individuals, corporations, nation-states, or species, we can be immune to what we do to other beings."

The less one cognizes selfhood, i.e., independence, in the phenomenal world, the more one begins to cognize dependence or interdependence in the phenomenal world. That is, those patterns of relationships which are in the background when self-nature is in the foreground emerge to the foreground of consciousness when selflessness is recognized. These patterns of relationship are what is referred to in Buddhist language as pratity as a mutpāda, dependent origination or interdependence.

Here is the obvious linkage with ecological thought, which stresses relationships of life forms as living systems. As Macy says, referring to the ecological view, "life is seen as dynamic ... patterns that are sustained in and by their relationships." This is precisely pratityasamutpāda, dependent origination.

The Buddha has said that whoever sees dependent origination sees Dharma, whoever sees Dharma sees dependent origination; and that whoever sees the Buddha sees Dharma, whoever sees Dharma sees the Buddha, thus characterizing pratity as amutpāda as basic to his Dharma and his own nature. So in this way the basic teachings of the Buddha are precisely conceptually aligned with those of ecology. From this basic doctrinal stance comes the elaboration of all other Buddhist teachings and attitudes which even historically can he called "Green Buddhism."

This elaboration, especially in Mādhyamaka, follows the course of articulating the identity of dependent origination and emptiness of self-nature. All ethics, compassion and altruism arise from this identity.

For example, it is shown in Madhyamaka that self and other exist in mutual dependence because without the experience of selfhood, a being would never be able to experience other beings as non-self, which is the definition of "other."10 This is not mere logical sleight-of-hand; this is cognitive, emotional, and experiential. Wrong belief in selfhood is called ignorance (avidyā) and is said to be the root cause for beings cycling through existence in the six realms. Not understanding that experience of self can only occur when there is experience of other, fundamentally leads to a devaluation of other and an inflation of importance of self. Ultimately, under the influence of grasping desires and aversions, other becomes experienced as unrelated to self at all; other becomes something to be used, exploited, feared, ignored, etc.

When the dependence or interrelatedness of the concepts of self and other is ascertained, one can then ascertain the fact of the interrelatedness of self and other. This is because it is only the belief that self and nonself/other have no fundamental interdependence which prevents one from experiencing the fact that beings can exist only because of their relatedness.

For example, no being can exist without parents, who provide at least the causes for the physical body of the being. We each arise in dependence on a mother and father.

Moreover, each moment of a being's activity is a result of a metabolic process, a process which depends on food, water, air and so forth. It takes people to grow that food and transport it to market so that it may be purchased and eaten. If the system breaks down, if there is a drought, or if one loses one's financial resources, and there is no food to eat, metabolism ceases. So we depend on farmers, truck drivers, bankers, etc., in order to live, exist and act. We exist in dependence on them, and they exist in dependence on our purchasing their food and services.

Thus, cognitively and in fact, each being exists in dependence on other beings, and were those others not to exist then we would not exist. This is indeed the classic definition of dependent arising.¹¹

All ethical behavior arises from the recognition of this fact; this is the source of the dharmic attitude toward the other, which is in actuality never out of relation with self.

Since there is but one self (to any subjective experience) and an infinite number of others, so mutual dependence must apply to all of those others. This is the source of the attitude called compassion.¹²

When the world is experienced as a web of interrelationships, then what affects the other is seen as also affecting oneself via that relationship. So, when the forests of the Amazon are burned and suffer, we suffer along with them because we are in fundamental relation with them. This is the literal meaning of the English word "compassion," from com+pati: to suffer with. Of course we know

how Buddhist teaching is rooted in the recognition of the suffering nature of things. And we know that the entire Buddhist enterprise of the Mahavana is based on this notion that our interconnectedness is so profound that although an individual may seek liberation (nirvana) for him/herself, enlightenment can only be gained when one's motivation is the attainment of enlightenment for the sake of all beings. Perhaps we may say that from a Mahayanist point of view, seeking freedom for oneself is simply another kind of delusion of self-reification, of seeing self out of relation to others. independent of others, and that enlightenment must be sought for the sake of all beings or else the motivation for liberation itself will not weaken the habit of self-reification and weaken the delusion of disconnectedness and independence. We may also say that if the fundamental sense of disconnection between self and other is mentally created and maintained by habit (samskāra) and if enlightenment-consciousness transcends the ultimacy of this self/other duality, then the enlightenment sought and found cannot, in an ontological sense, be for a nonexistent independent self but only for a relatively existent, interdependent, multibeing field.13

Here we see how the doctrine of the six realms of cyclic existence takes on a new significance and implies an attitude of equality with all beings, as not only are all the beings of this planet, human and non-human, conscious but, moreover, we are not independent of those beings of the six realms. Rather, we all exist as an interdependent multibeing metapattern. The Mahayana way is to seek liberation for this total multibeing metapattern.

In this sort of context, even the notion of the Sangha changes, and the jewel of the dharmic community, the Sangha, extends out beyond the human into the total biosphere, into the Gaian community.

The Buddhist sense of connectedness to the Gaian community, the web of nature, can also be seen when we look at biographies of the Buddha

and at early Buddhist sculptures. The oldest extant sculptures adorn the stupas. In these sculptures we find the most extraordinary profusion of vegetative imagery woven into scenes from the lives of the Buddha. One may suppose that the plant life is mere decoration or even that since so much Indian life was lived outdoors that such background is literally quite natural. However, there are important messages associated with the plants in the narratives of the Buddha's lives which point at a Gaian community through a mythic language.

For example, the legend of the Buddha's birth is frequently portrayed. His mother Queen Māyā, is shown giving birth to him out of her right side as she stands up, her right hand grasping the branch of a sal tree, her left leg crossed in front of her right, toes on the ground and heel facing out.¹⁴

Since this pose is so obviously peculiar for parturition, we may reasonably assume that it is symbolic of something. The pose is mirrored, for example, on the gates of Sanchi stupa by the figure of the yakşi, the vegetative goddess, a spirit of fecundity, who kicks the tree from which she hangs by her hands to induce it to bear fruit.¹⁵

Presumably this is the deeper, symbolic message in Queen Māyā's posture: she is not only human giving birth to human, but fertility goddess giving birth to the great fruit, the Bodhisattva. Of course this fruit encloses the seed for the greatest fruit of all, which is produced under the bodhi tree—the Buddha.

The theme is further embellished by the legends. Queen Māyā specifically sought out a grove of sal trees when the time for birth came. 16 Sal trees were sacred, and indeed the city of Kathmandu is said to take its name from, and be built around, a temple called Kasthamandap, which is reputed to have been constructed from the wood of a single sal tree. 17 Legend also has it that the bodhi tree sprouted on the day of Śākyamuni's birth. 18 After his birth he took seven steps and lotuses sprang up in his footsteps. While sitting under the bodhi tree Śākyamuni is "attacked" by Māra and, touching the earth with his right finger

tips, he calls on the Earth Goddess. In the earliest iconography his presence was often represented by an empty cushion under the bodhi tree. And finally, at the end of his life, Buddha sought out a grove of sal trees at Kusinārā, where he lay on his right side to pass into parinirvāṇa.

The spirits of the vegetable world make regular appearances in the sutras, and the Buddha preaches to them along with humans and gods. As Thurman says in his translation of the Vimalakirtinirdesa: besides Brahma, the creator god and Indra, the king of the gods of the desire realm, there are also always present at the Buddha's discourses the lokapālas, which are the gods of the directions and quarters, as well as the eight kinds of supernatural beings — devas (gods), nāgas (dragons), yakṣas (forest-demons, the same as the fecundity deities mentioned above), gandharvas (fairies), asuras (titans), garudas (magical birds), kinnaras (horse-headed mountain dwelling humanoids) and mahoragas (serpent bodied humans). 9

During the middle period of Buddhism. these philosophical and mythic roots were developed and elaborated in many ways. The Mahayana tradition explored the notion of enlightenment and defined it as meaning, among other things, omniscience. Omniscience was explained as meaning that the Buddha's consciousness was unimpeded, that it was everywhere.20 This follows from Mādhyamaka logic, for if no thing is "finally" or "ultimately" non-other than anything "else" (the Ultimate Truth of things, paramārthasatya, in contrast to the appearances or Relative Truth of things, samvrtisatva) then no consciousness is actually other than the Buddha consciousness, and the Buddha's consciousness is every consciousness, everywhere. The Mahayana sutra and Mahayana tantra streams elaborated the implications of this perspective in somewhat different ways. The sutra stream focused on the omniscient Buddha as dwelling in a pure land apart from this defiled world, a land to be contemplated through sutra recitation and devotionalism. The tantra stream, attending to the interdependence and non-otherness of samsara and nirvana focused on the omniscient Buddha as not only being here in this apparently defiled world, but as being non-other than the beings of this world.

The sutra stream attains its supreme elaboration in such works as the Lotus Sutra and the Avatamsaka Sutra. Here we find stories which stress not only the pervasiveness of the Buddha (e.g., worlds on the tips of his hairs) — or the Buddha-nature — but also direct metaphors for interconnectedness such as that of the "Jewel Net of Indra," in which everything is reflected in everything else.

This heritage passes to Zen where at the end of the middle period of Buddhism we find the Zen master Dögen saying that "the entire Earth is not our temporary appearance, but our genuine human body" and that "Reality is a spiritual activity—the world practices Buddhism." 22

In the tantric stream, as it was initially developed in India and later preserved in Tibet and Japan, the extensiveness of the Buddha and the fundamental interconnectedness of all beings in the web of existence takes tangible form in ritual activity.

According to the Tibetan description, both the sutra and tantra streams are Mahayanist in that they have enlightenment for the sake of all sentient beings as their goal. However, sutra is said to be limited in that its fruit is the mind of a Buddha, while tantra is said to be unlimited in that its fruit is both the mind and the body of a Buddha. This is because both sutra and tantra agree that while wisdom is required to produce the mind of a Buddha, merit is required to produce the body of a Buddha. Sutra is said to articulate in a limited way the specific techniques for producing the requisite merit, while tantra is said to articulate in an unlimited way the specific techniques for producing the requisite merit on which the body of a Buddha depends. Thus, tantra is said to be especially efficient and powerful for obtaining Buddhahood which includes both the mind and body of a Buddha.23

It is these techniques for the creation of the body of a Buddha through the acquisition of merit that are of particular interest in this article's articulation of Green Buddhism. This is not only because the embodiment of a Buddha (the $r\bar{u}pak\bar{a}ya$, the form body) is achieved for the benefit of the beings of the world, that is, for the biosphere, but also because the acquisition of merit is in fact a compassionate activity, an activity which is founded on the recognition of the interdependence of beings and a desire to reduce the suffering and increase the happiness of all the beings of the interdependent multibeing field of the biosphere.

Since tantra has unlimited means for the acquisition of merit in the creation of the body of a Buddha, so it has unlimited means (techniques) for benefiting beings. These are the techniques which Buddhas and those on the path to Buddhahood can employ for the benefit of the biosphere. The way to understand how these means can be effective is to examine a single concept/description which, though deceptively simple, has profound implications.

In tantric psychology, consciousness is not described as an energetic phenomenon, but it is said that wherever consciousness is found, so also energy is found. This energy is called "wind." It is not usually asserted that consciousness and wind are two aspects of the same phenomenon, but that they are separate phenomena which exist in dependence on each other. A metaphor is used to describe this relationship: that of a horse and rider. The horse, energy, is the mount of the rider, consciousness. Energy, thus, is described as "carrying" consciousness about, while consciousness "directs" the movement of energy.

The energy or wind is described as pervading the entire human body; the patterns of its flow throughout the body are dependent on the activity of consciousness. For Buddhas, at any rate, this pattern of energy in the body is also described as an energy body itself, e.g., a "light body" or "rainbow body" or "illusory body."

In fact, this wind/energy actually pervades

the whole of space. This follows from the sutra and tantra definition of Buddhahood as "omniscience," meaning, among other things, that the Buddha's mind is "unimpeded." That is, a Buddha's consciousness extends everywhere, without impediments. Since a Buddha's consciousness is also a rider on the mount of wind/energy, and since energy and consciousness are interdependent, this means that a Buddha's energy body must also extend throughout space without impediment. That is, a Buddha's energy body is ubiquitous, it is everywhere in the universe.²⁴

Thus, by analogy, as ordinary human consciousness must extend into space to some degree or there would be no perceptual activity, and as the ordinary human body has an energetic aspect, 25 so ordinary human energy must extend into space to some degree. As ordinary human consciousness develops towards Buddha consciousness through Dharma practice, so ordinary human consciousness must pervade space more extensively, with fewer impediments.

It is probably easier for the modern mind to see the implications of these doctrines by translating them into the contemporary languages of physics or living systems theory and, thus, to think of energy patterns that persist over time rather than to think about energy bodies. But whether contemporary scientific language is used or traditional Buddhist language is used, what is named is identical.26 If we mix languages and think of consciousness as mounted on an energy field, the implications of this doctrine will be more readily comprehensible, for we understand that energy fields are essentially boundless and mutually interpenetrating. Thus, all human consciousnesses mounted on their energy fields must also be mutually interpenetrating. In fact, the consciousnesses of all sentient beings must be mutually interpenetrating.

By this we realize how the philosophical doctrine of dependent origination (interdependence) translates ontologically into interdependence of energetic fields or forms and is not just "causal" interdependence.

By the same token, we can now see how the Buddhist meditation practitioner can directly influence the biosphere. That is, since all energy fields interpenetrate and mutually influence each other, so the alteration of one energy field affects others. And since one of the purposes of tantric meditation practice is to induce such alterations (for example, in the creation of an "illusory body" out of wind/energy) so such practices must affect the biosphere.

The most effective activity is that of a Buddha, since a Buddha is omniscient, and since a Buddha's energy body is coextensive with the entire biosphere (actually all the biospheres of all the planets) so a Buddha's ecological concerns are the most potent and effective. Another way of saying this is that the altruistic attitude of a Buddha in its nature as a pattern of consciousness wholesomely affects the energy structure of the biosphere. This is the tantric rendering of what we might call "ecological bodhicitta:" the most effective way to positively influence the ecology of the planet is to become a Buddha; that is, to become the energy system of the planet! True Mahayana!

There is another feature of living systems language that will help us understand how specific Buddhist meditation techniques can influence the biosphere and how practitioners on the path can positively influence the biosphere without waiting to become Buddhas.

Living systems, i.e., the type of systems which in aggregate compose the biosphere, have the characteristic of being negatively entropic because they are "open systems far from equilibrium." Entropy is the running down or disorganization of energy systems, thus negatively entropic systems are systems which do not run down, at least over some period of time. This negative entropy is, in fact, a definition of life. Negative entropy is achieved by living systems' ability to self-organize, take in energy from the environ-

ment, and dissipate entropy (waste) back to the environment.

Now, if in fact the energy organized by living systems into negative entropic patterns is the same energy called "wind" in tantra we can use what we know about living systems and what we know about tantric doctrines to understand how specific tantric techniques can directly influence the biosphere in specific ways.

Consciousness directs wind/energy. How does it do this? The forms/patterns consciousness takes will in an isomorphic sense determine the patterns wind/energy takes. We know these patterns from basic abhidharma: there are six consciousnesses, each associated with a sense organ—one of which is mind-sense consciousness (manovijāāna). Thoughts, such as words and images, are patterns in mind-sense consciousness. Since consciousness affects wind, so thought patterns will have an isomorphic effect on wind/energy. Thoughts are of many types, but are generally categorized in Tibetan systems as "mental images" which are either word-based or sense experience-based.²⁷

In other words, our mental images can affect our energy bodies, and because of the interpenetration of energy bodies, our mental images affect the biosphere. Obviously, if there are systematic relations between mental image and energy, then the intentional cultivation of specific mental images will have specific effects on the biosphere.

Tantra includes the cultivation of mental imagery for the production of Buddhahood. Thus, we need only examine the extant "vocabulary" and "syntax" of mental images utilized in tantric sadhanas to see how we can directly impact the biosphere. There are three features of such sadhana "vocabularies" that I would like to focus on. These are the "divine pride" of the practitioner, the emission of rays of light and making offerings.

The key element of any tantric sadhana is the practitioner visualizing an image of a Buddha or *yidam* and identifying him/herself as being that Buddha or yidam. In practice this means superimposing a mentally created image of a Buddha on one's ordinary human body with the attitude that "I am so-and-so Buddha." This attitude is what is called "divine pride." The image identified with is of the nature of light, not matter, and identifying with this light body of a Buddha is identifying with the energy body of a Buddha. This is because in tantric sadhanas light (which in actuality is energy) is an image which represents wind/energy, which otherwise couldn't be imagined as such.²⁸

The identification with this light body of a Buddha is called the practice of an effect vehicle and is possible because all humans are potential Buddhas. Thus, imagining oneself as what one potentially is, is a way of becoming that thing because it establishes the identity and activates the thought "I am a Buddha," thus developing the very merit and mental habit patterns (saṃskāras) which achieve Buddhahood.²⁹

From the point of view of living systems theory, we would say that a specific self-organizing pattern is being cultivated — that of a Buddha. In the process of this cultivation the energy field or pattern of the living system which is a human being is altered. Since consciousness directs the flow of wind, so a conscious image of Buddhahood organizes the energy of the living system into the energy body of a Buddha.

But an organizing pattern is not enough, for beyond the self-organizing pattern, living systems maintain themselves by taking in energy and shedding entropy.

For example, plants absorb carbon dioxide from the atmosphere and water and other nutrients from the soil, binding them with light energy through the process of photosynthesis. Oxygen is a waste product of this process. Animals eat the plants and breathe the plants' waste products (oxygen), releasing the energy bound in the plants to maintain their own metabolic energy systems. They in turn pass on the wastes of their metabolic processes in the form of carbon dioxide, urine, feces and so forth. These in turn are nutrients for

plants. Thus plants and animals represent two types of open systems which nurture each other through their respective waste products and through mutual consumption, binding, releasing and transforming energy in the process.

In the tantric sadhana this type of mutual nurturing and sharing of energy is represented by the emission of light rays, which link deities and ordinary beings, as well as through the process of making offerings. Not surprisingly, these processes are considered methods of acquiring merit via the sadhana. It is said that it is the merit acquired by these forms of sharing which creates the form body of a Buddha (rūpakāya) and it is the actual exchange of energy among living systems which sustains the systems (i.e., maintains their energy patterns—negative entropy—as well as their actual substantial bases). Again—isomorphism.

In the sadhana the practitioner identifies him/herself with a Buddha or yidam and at various points of the sadhana absorbs the light beams emanating from other Buddhas or emits light beams to other Buddhas and sentient beings. As light represents energy associated with the consciousness of the practitioner, so the movement of light is the movement of energy and the transmission of light between Buddhas and other beings is analogous to living systems sharing energy. Here the energy shared is not "waste," but is a gift, an offering. That is to say, the visualized transmission of light between beings is a practice of the pāramitā of "giving," one of the practices which lead to Buddhahood in both sutra and tantra.

This kind of giving or offering of substance for nurturing beings is more literally acted out ritually and imaginally through what are called "inner offerings." In the case of some sadhanas of the Anuttarayoga class, such as Vajrabhairava and Vajradākinī, the inner offering is made in a skull bowl. It consists of five kinds of flesh, such as that of a bull, and five kinds of fluids, such as urine. These ten substances have symbolic meanings, but at the level of image, the practitioner is offering

his/her substance and wastes to other Buddhas and their entourages. When this practice is seen as linked with the emission of light rays, we can interpret both as symbolic offerings of nutrition/ substance and energy by one living system to another.

But it is not just a symbolic offering, though the contemporary Western mind has tended to interpret the process in this limited fashion. Because mental images and energy exist in dependence on each other (consciousness is mounted on wind), offering the image of something to another being/system is also offering the energy which is associated with the image. Thus, beings *literally* nourish each other's energy bodies when, in the sadhana, they make imagined offerings.

This new perspective which arises from linking systems theory and Dharma clarifies the statement made earlier that tantra has special techniques for producing the form body of a Buddha. One of these special techniques is the giving of mentally created offerings to infinite beings (viz., biosphere) in the dramatic ritual of the sadhana which is claimed to accumulate "inconceivable" amounts of merit and to accelerate the acquisition of a form body of a Buddha. We can now understand this statement because we can see the mentally created offerings in the sadhana as not mere fantasy but as actual energies shared by beings, energies which are necessities of life. Since it is possible to radiate light to inconceivable numbers of beings, so it is possible to accumulate inconceivable amounts of merit; precisely the amount of merit required to create the form body of a Buddha.

Through this new perspective we can also see the significance of generating divine pride. In the sadhana the practitioner first generates the image of a Buddha superimposed over his/her own body and then invites that Buddha to enter the image visualized. Here, we can see one self-organizing system reorganizing itself around a prototypical image (a Buddha or yidam) and becoming a container for the greater energy, that

very Buddha, another system. In this way, the practitioner's actions are made more effective because they are systematically linked to the form and energy of a Buddha or *yidam*.

But, here we are talking about the drama of the tantric sadhana which is practiced for the purpose of achieving Buddhahood. Beyond what has already been said, how would this practice positively affect the environment?

For one thing, tantra is a Mahayana practice. That is, one seeks Buddhahood for the benefit of all sentient beings. As we have seen above, the consciousness and energy body of a Buddha are coextensive with and pervade the biosphere, so the intentions of a Buddha directly manifest in the energy system of the biosphere. Thus, achieving Buddhahood is one way to affect the biosphere and maintain its integrity: the thoughts of a Buddha are the thoughts of the biosphere, the self-organization of the biosphere is no different from the self-organization of a Buddha. Or, as Dogen said, "... the world practices Buddhism."

For practitioners on the path to Buddhahood, i.e., non-buddhas, tantric practice also offers a way to impact the biosphere directly and favorably. This is because the very sadhana itself, as practiced by an ordinary human being, dramatizes the essential sharing of substances and energies between living systems within the context of the intention to be of benefit to those systems and beings: the ritual of making offerings and radiating light. In this fashion the practitioner positively transforms other systems on the planet through meditation practice, via the pāramitā of giving.

Moreover, the sadhana is the creation of a "pure land," for not only is the image of a Buddha created and invoked in the sadhana, but the environment of a Buddha is also created, i.e., the palace in the pure land of the visualized Buddha is created. This palace is also called a mandala. Here, the process of mentally creating and invoking a pure land of a Buddha implies the direct purification of the entire biosphere, the conversion of the biosphere to a pure land, not just as an

ultimate goal of practice, but as a fact for each moment of practice where the practitioner has suspended "ordinary appearances" and exists as a Buddha in a mandala, Again, this is because wind/ energy is organized by consciousness; therefore, each moment of creating a pure land and resident Buddha during the sadhana is, in fact, a modification of the very energy field of the biosphere, albeit minutely, at that moment. Thus, the practitioner moving along the path to Buddhahood is in fact also affecting the entire biosphere, is in fact carrying the entire biosphere along the path to Buddhahood. This is the ecological rendering of the bodhisattva vow, ecological bodhicitta!

Since the pure land of a Buddha, by the definition of "pure," must be a perfectly healthy biosphere, so the incremental practice of tantra, as a Mahayana practice, incrementally improves the health of the biosphere by incrementally converting it into a pure land of a Buddha. All tantric Buddhist consciousness is ecological consciousness!

APPENDIX: "DOUBLE DESCRIPTION"

What is the value of linking Dharma with systems theory or any other modern philosophical, psychological or scientific world view?

For those who believe in the discernibility of an "original Buddhism" the enterprise must seem useless, if not perverse! From this point of view, the teachings of Śākyamuni Buddha in the 6th-5th century BCE are perfect in themselves and any apparent divergence or conflict of view or practice articulated in the scriptures (or commentaries) is a result of post-Śākyamuni distortions, forgeries, mistranslations and so forth. From this point of view anything other than the (supposedly discernible) word of the historic Buddha is a symptom of a process of degeneration. That is, cultural accretions to the Dharma are degenerations, and the linking of Dharma to systems theory is only the most recent degeneration in the process.

An alternative view is that humanity changes

over time (for better or worse is not relevant) and therefore the forms of the Dharma's expression change to meet these changed circumstances or types of humanity. While this may be presumed to be some sort of modern hermeneutic, in fact it is venerable in Buddhist tradition. Two examples from the sutras should he sufficient.

At the time of the Buddha's enlightenment he observed the beings of the world to be like variously colored lotuses in a pond, some buds below the surface, some above the surface tightly closed and others ready to open. The meaning of this vision as explained by the Buddha is that beings are in different stages of growth and require different teachings to further their "development."

In the sutras the Buddha is also described as being like a physician who has different medicines for different types of beings suffering from different afflictions. His differing teachings are thus the medicines appropriate for differing afflictions. By this sort of traditional hermeneutic, the different sorts of (apparently contradictory) teachings in the scriptures are explained as being not, in fact, contradictory, but rather as being expounded for the benefit of different sorts of persons.

This, of course, is the underlying rationale in the hermeneutic of the "three turnings of the wheel of the law." And this is the point. Throughout Buddhist history the Dharma has been clothed in a language suitable to the time and location. It has provided the medicine appropriate for the ills of the times. Depending on one's perspective, this propounding of differing medicines for differing times is either the essence of the degeneration process (for it presumes that it is not the Buddha who is making the new prescriptions) or it shows the Dharma's essential truth-nature. It is this truthnature which allows it to adopt new languages to express unchanging truths and so be the right remedy for the times - i.e., there is a kind of compassionate praxis inherent in the very truth of the dharmic analysis of Reality.

Taking this later view, we can position ourselves within a venerable tradition when we seek to develop a contemporary language for Dharma and insight into its truths. That language will of necessity, if it is to work, embrace what is central to the contemporary view of life. It will have to be a language which incorporates the best features of modern learning. This means that such a language will need to not only embrace science, which predominates in the modern world, but it will also have to be self-conscious about history, culture and language itself if it is to incorporate postmodern humanistic learning.

Thus, the postmodern articulators of Dharma, and Dharma itself, will have to take into account not only its own history, as it has done in the past (e.g., three turnings of the wheel of the law) but also its differing cultural manifestations and even the mistakes of previous articulations, translations and cultural manifestations.

For example, we know a lot about the initial translating of scriptures into Chinese and Tibetan and know some of the problems which arose in the process. Translating "Dharma" as "Tao" created some real problems for the Chinese. Contemporary translations, literally and figuratively, are prone to similar problems. But, no translation, no communication!

Here we find the writing of Gregory Bateson of real value. An anthropologist with a keen interest in Epistemology, the work of the last decades of his life is especially useful for those dealing with multicultural translation in the broadest sense. We also know that Bateson was interested in Buddhism, perceiving some sort of linkages with his own explorations into general systems theory. Though his writings are remarkably broad and have been quoted above by Macy, in this section I wish to focus on a simple epistemological concept, which he calls "double description." 32

Double description refers to the "bonus" in information acquired by utilizing multiple descriptions of reality. Bateson employs a metaphor to explain what he means: parallax vision. In animals, parallax is the phenomenon created by having two eyes separated by a bit of space. Each eye encom-

passes a slightly different sector of the field of vision. In fact, if the image falling on one retina were to be placed over the image on the other, they would not be identical. But not only does this not create a problem for the animal who creates a single "representation" in consciousness, but it is in fact the source of the ability to perceive a third dimension of "depth" beyond the flat two dimensions of height and width. Depth of field is the "bonus" of information created by the double description which is the result of having two eyes.

Bateson also asserts that double descriptions which do not literally produce new information are still valuable, still produce some sort of bonus. Here he gives the example of the algebraic and geometric double descriptions of binomial theory. Both describe the same thing, and neither produces information not contained in the other, yet he believes that something is gained for consciousness simply from the ability to apply successfully different descriptions/solutions to the problem.

Though Bateson does not say this (though he does talk about "insight"), we may conclude that in this sort of case the bonus from double description is in the nature of increased self-reflectivity, improved understanding of how the descriptive process itself works.

Bateson's analysis shows why it can be of value to use systems language to explicate Dharma in the contemporary context. If we can consider the language of Dharma and systems language as both being valid descriptions of one phenomenon — life — then there are three possible outcomes: 1) the double description provides a new "dimension" of information (like depth), or 2) the double description generates new insight into each individual language/description, or 3) both. Either way, the exercise is of value.

In this article I have been pursuing the second outcome, that is, seeking insight into Dharma for contemporary people who basically have a scientific view of Reality and for whom an explanation utilizing modern scientific language provides a bonus of "insight" into Dharma and its world-transforming techniques.

Here we may also ask why should one look into dharmic language if systems language can describe the same thing as Dharmic language? The answer is that they do not describe precisely the same thing. In particular, systems theory does not address what is called "practice" in Dharma. That is, while dharma is descriptive, it is also transformative and liberative. Systems theory is descriptive but lacks liberative technique, it lacks a practice for transforming either what is being described or for transforming the one employing the description.

NOTES

- Badiner, Allan H., ed., Dharma Gaia (Berkeley: Parallax Press, 1990).
- 2. Of course, interpreting Dharma from any contemporary conceptual framework poses dangers, and using ecology is no exception. See for example, the kind of reinterpretation (distortion?) found in the creation of 20th century Indian Buddhism by B. R. Ambedkar in Macy; World As Lover, World As Self (Berkeley: Parallax Press, 1991). Nevertheless, I will run the risks in articulating a "Green Buddhism." My rationale for this method of interpretation will be found in the Appendix. In fact, the very use of the term "Green Buddhism" already indicates an engagement with convergent, though differing, world views and a specific, if unarticulated, epistemology. The Appendix is simply a brief articulation of my methodology and its epistemological foundations.
- 3. See my article "The Emergence of American Buddhism," *The Pacific World*, New Series, No. 6, 1990, pp. 1–4.
- It is necessary to ask why we need to link two world views. Cannot the Dharma stand on its

own? What is the merit of a linkage to systems theory, if this is even possible? Again, this issue is addressed in the Appendix. For Macy's views, see her book Mutual Causality in Buddhism and General Systems Theory (Albany: State University of New York Press, 1991).

- 5. Badiner, p. 53.
- 6. Badiner, p. 57.
- 7. Badiner, p. 56.
- 8. Majjhima-nikāya I, 190-91.
- 9. Samyutta-nikāya III, 120.
- See for example, Nāgārjuna; Mūlamadhyamakakārikā, chapter XV and Sūnyatāsaptatikārikānama, stanzas 27 and 28.
- 11. "When this is present, that comes to be; from the arising of this, that arises. When this is absent, that does not come to be; on the cessation of this, that ceases." Majjhima-nikāya I, 262.
- 12. This is nicely elaborated by Kensur Lekden in *Meditations of a Tibetan Tantric Abbot* (Dharamsala: Library of Tibetan Works and Archives, 1974), p. 4-5. In the Tibetan tradition, following the Indian prototypes, this view is developed into an entire program of mental and emotional transformation. There are two typical approaches, called "the equalizing of self and other" and "the sevenfold quintessential instructions of cause and effect."
- 13. Another way of saying this is that the apparent striving for enlightenment by any individual is actually the world becoming slightly more enlightened through the agency of a particular human body. Utilizing this language, Mahayana can be conceptually linked to the philosophies of Teilhard de Chardin and Thomas Berry who read evolution as a process in which the universe utilizes human beings as the medium through which it becomes conscious of itself. Grafting de Chardin and Berry onto the Mahayana, we could say that enlightenment is the universe becoming conscious of all of itself in all of its aspects, something beyond ordinary human consciousness

of limited areas of space, of particular times, and distorted by both historical/cultural/linguistic parameters and specific personal needs and habits.

- 14. See for example, photographs in A. Foucher, *The Life of the Buddha* (Middletown: Wesleyan University Press, 1963), p. 27.
- See Hugo Munsterberg, Art of India and Southeast Asia (New York: Harry N. Abrams, 1970), p. 30 for a fine image of the yaksi.
- 16. Nidānakatha, as quoted by E. F. Thomas; The History of Buddhist Thought (New York: Barnes and Noble, 1971), p. 32.
- Trilok Chandra Majupuria, Religious and Useful Plants of Nepal and India, (Bangkok: Craftsman Press, 1989), p. 124.
 - 18. Foucher, p. 35.
- 19. R. A. F. Thurman; The Holy Teaching of Vimalakirti (University Park: The Pennsylvania State University Press, 1976), pp. 108-9.
- Oral instruction from Tara Tulku Kensur Rinpoche, Bodh Gaya, India, January 1989.
 - 21. As quoted in Badiner, p. 108.
 - 22. As quoted in Badiner, p. 97.
- Oral instruction from Tara Tulku Kensur Rinpoche, Bodh Gaya, India, January 1989.
- 24. Oral instruction from Tara Tulku Kensur Rinpoche, Bodh Gaya, India, January 1989.
- 25. It is a fundamental tenet of Mādhyamaka that cause and effect must be of the same nature. Thus, an effect such as a Buddha, must depend on a cause (actually, innumerable causes). Since a Buddha has an energy body, this energy body must be dependent on causes of like nature. And since human existence is one of the many sorts of existence in the stream of lives of a Buddha which serve as causes, so human existence must include the possession of an energy body as one of the many causes for the Buddha's energy body. So, too, must an energy body be possessed by animals, etc., throughout the six realms of sentient beings on the wheel of life, for Buddhas lead all sorts of existences prior to enlightenment.

- The methodological rationale for this approach is articulated in the Appendix.
- 27. Cf., David Komito; Nāgārjuna's Seventy Stanzas: A Buddhist Psychology of Emptiness (Ithaca: Snow Lion Publications, 1987), pp. 42-3.
- 28. Oral instruction from Tara Tulku Kensur Rinpoche, Muir Beach, California, August 1990.
- 29. See note 25 on the causal relationship between Buddhahood and other beings.
 - 30. As quoted in Badiner, p. 97.
- 31. R. A. F. Thurman has exemplified the identity of the pure land with the mandala palace of the Buddha in Wisdom and Compassion: The Sacred Art of Tibet (New York: Harry N. Abrams, 1991).
- 32. A detailed rendering of Gregory Bateson's concept of double description, and the source of the examples which follow is Mind and Nature (New York: E. P. Dutton, 1979), Chapter III. Joanna Macy's book Mutual Causality in Buddhism and General Systems Theory is in fact an example of double description (cf. note 4). Her point of linkage is pratityasamutpāda, but she does not venture into tantra.