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Literature and Ecology



AN EXPERIMENT IN ECOCRITICISM

"It is the business of those who direct the activities that will shape tomorrow's world to think beyond today's well-being and provide for tomorrow."—Raymond Dasmann, *Planet in Peril*

"Any living thing that hopes to live on earth must fit into the ecosphere or perish."—Barry Commoner, *The Closing Circle*

"... the function of poetry . . . is to nourish the spirit of man by giving him the cosmos to suckle. We have only to lower our standard of dominating nature and to raise our standard of participating in it in order to make the reconciliation take place. When man becomes proud to be not just the site where ideas and feelings are produced, but also the crossroad where they divide and mingle, he will be ready to be saved. Hope therefore lies in a poetry through which the world so invades the spirit of man that he becomes almost speechless, and later reinvents language."—Francis Ponge, *The Voice of Things*

SHIFTING OUR LOCUS OF MOTIVATION

Where have we been in literary criticism in my time? Well, like Count Mippipopolus in *The Sun Also Rises*, we seem to have been everywhere, seen and done everything. Here are just some of the positions and battles which many of us have been into and through: formalism, neoformalism, and contextualism; biographical, historical, and textual criticism; mythic, archetypal, and psychological criticism; structuralism and phenomenology; spatial, ontological, and—well, and so forth, and so forth. Individually and collectively, we have been through so many great and

original minds, that one wonders what could possibly be left for experimental criticism to experiment with just now—in 1976.

Furthermore, there are so many resourceful and energetic minds working out from even the merest suggestion of a new position, that the permutations of even the most complex new theory or methodology are exhausted very quickly these days. If you do not get in on the very beginning of a new theory, it is all over with before you can even think it through, apply it, write it up, and send it out for publication. The incredible storehouse of existing theories and methods, coupled with the rapid aging (almost pre-aging, it seems) of new critical theories and methods, has made for a somewhat curious critical environment. For those who are happy with it, a fabulously resourceful, seemingly limitless, pluralism is available: there is something for everybody and almost anything can be done with it. But for those whose need and bent is to go where others have not yet been, no matter how remote that territory may be, there are some problems: the compulsion toward newness acts like a forcing house to produce theories which are evermore elegant, more baroque, more scholastic, even, sometimes, somewhat hysterical—or/and, my wife insists, testetical.

I don't mean to ridicule this motive; in fact, I have recently defended it rather energetically.¹ I'm really reminding myself of how things can go in endeavors such as this one, so that I can, if possible, avoid the freakism and exploitation latent in the experimental motive. Pluralism, a necessary and valuable position, which is not really a position at all, has certain obvious limitations because one always tries to keep up with what's new but must still work always with what has already been done and is already known. So what is to be done if one wants to do something that is worth doing, that is significant; if one is suffering from the pricks of historical conscience and consciousness; wanting to be "original," to add something new, but wanting to avoid the straining and posturing that often goes with this motive, and above all, wanting to avoid the Detroit syndrome, in which the new model is confused with the better or the intrinsically valuable. Whatever experimental criticism is about, the senseless creation of new models just to displace or replace old ones, or to beat out a competitor in the intellectual marketplace should not be the result. To confuse the life of the mind with the insane economy of the American automobile industry would be the worst thing we could do.

The more I have thought about the problem, the more it has seemed to me that for those of us who still wish to move forward out of critical

pluralism, there must be a shift in our locus of motivation from newness, or theoretical elegance, or even coherence, to a principle of relevance. I am aware that there are certain obvious hazards inherent in any attempt to generate a critical position out of a concept of relevance, but that is what experiments are for. The most obvious and disastrous hazard is that of rigid doctrinal relevance—the old party-line syndrome. I have tried to avoid that. Specifically, I am going to experiment with the application of ecology and ecological concepts to the study of literature, because ecology (as a science, as a discipline, as the basis for a human vision) has the greatest relevance to the present and future of the world we all live in of anything that I have studied in recent years. Experimenting a bit with the title of this paper, I could say that I am going to try to discover something about the ecology of literature, or try to develop an ecological poetics by applying ecological concepts to the reading, teaching, and writing about literature. To borrow a splendid phrase from Kenneth Burke, one of our great experimental critics, I am going to experiment with the conceptual and practical possibilities of an apparent perspective by incongruity. Forward then. Perhaps that old pair of antagonists, science and poetry, can be persuaded to lie down together and be generative after all.

LITERATURE AND THE BIOSPHERE

What follows can be understood as a contribution to human ecology, specifically, literary ecology, though I use (and transform) a considerable number of concepts from pure, biological ecology.

The problem now, as most ecologists agree, is to find ways of keeping the human community from destroying the natural community, and with it the human community. This is what ecologists like to call the self-destructive or suicidal motive that is inherent in our prevailing and paradoxical attitude toward nature. The conceptual and practical problem is to find the grounds upon which the two communities—the human, the natural—can coexist, cooperate, and flourish in the biosphere. All of the most serious and thoughtful ecologists (such as Aldo Leopold, Ian McHarg, Barry Commoner, and Garret Hardin) have tried to develop ecological visions which can be translated into social, economic, political, and individual programs of action. Ecology has been called, accurately, a subversive science because all these ecological visions are radical ones and attempt to subvert

the continued-growth economy which dominates all emerging and most developed industrial states. A steady or sustainable state economy, with an entirely new concept of growth, is central to all ecological visions. All this may seem rather remote from creating, reading, teaching, and writing about literature; but in fact, it is not. I invoke here (to be spelled out in detail later) the first Law of Ecology: "Everything is connected to everything else." This is Commoner's phrasing, but the law is common to all ecologists and all ecological visions. This need to see even the smallest, most remote part in relation to a very large whole is the central intellectual action required by ecology and of an ecological vision. It is not mind-bending or mind-blowing or mind-boggling; it is mind-expanding. As absurd as this may sound, the paper is about literature and the biosphere. This is no more absurd, of course, than the idea that man does not have the right to do anything he wants with nature. The idea that nature should also be protected by human laws, that trees (dolphins and whales, hawks and whooping cranes) should have lawyers to articulate and defend their rights is one of the most marvelous and characteristic parts of the ecological vision.

ENERGY PATHWAYS WHICH SUSTAIN LIFE

I'm going to begin with some ecological concepts taken from a great variety of sources more or less randomly arranged and somewhat poetically commented upon.

A poem is stored energy, a formal turbulence, a living thing, a swirl in the flow.

Poems are part of the energy pathways which sustain life.

Poems are a verbal equivalent of fossil fuel (stored energy), but they are a renewable source of energy, coming, as they do, from those ever generative twin matrices, language and imagination.

Some poems—say *King Lear*, *Moby Dick*, *Song of Myself*—seem to be, in themselves, ever-living, inexhaustible sources of stored energy, whose relevance does not derive solely from their meaning, but from their capacity to remain active in any language and to go on with the work of energy transfer, to continue to function as an energy pathway that sustains life and the human community. Unlike fossil fuels, they cannot be used up. The more one thinks about this, the more one realizes that here one encounters a great mystery; here is a radical differential between the ways in which the human world and the natural world sustain life and communities.

Reading, teaching, and critical discourse all release the energy and power stored in poetry so that it may flow through the human community; all energy in nature comes, ultimately, from the sun, and life in the biosphere depends upon a continuous flow of sunlight. In nature, this solar "energy" is used once by a given organism or population; some of it is stored and the rest is converted into heat, and is soon lost" from a given ecosystem. The "one-way flow of energy" is a universal phenomenon of nature, where, according to the laws of thermodynamics, energy is never created or destroyed: it is only transformed, degraded, or dispersed, flowing always from a concentrated form into a dispersed (entropic) form. One of the basic formulations of ecology is that there is a one-way flow of energy through a system but that materials circulate or are recycled and can be used over and over. Now, without oversimplifying these enormously complex matters, it would seem that once one moves out of the purely biological community and into the human community, where language and symbol-systems are present, things are not quite the same with regard to energy. The matter is so complex one hesitates to take it on, but one must begin, even hypothetically, somewhere, and try to avoid victimage or neutralization by simple-minded analogical thinking. In literature, all energy comes from the creative imagination. It does not come from language, because language is only one (among many) vehicles for the storing of creative energy. A painting and a symphony are also stored energy. And clearly, this stored energy is not just used once, converted, and lost from the human community. It is perhaps true that the life of the human community depends upon the continuous flow of creative energy (in all its forms) from the creative imagination and intelligence, and that this flow could be considered the sun upon which life in the human community depends; but it is not true that energy stored in a poem—*Song of Myself*—is used once, converted, and then lost from the ecosystem. It is used over and over again as a renewable resource by the same individual. Unlike nature, which has a single ultimate source of energy, the human community would seem to have many suns, resources, renewable and otherwise, to out-sun the sun itself. Literature in general and individual works in particular are one among many human suns. We need to discover ways of using this renewable energy-source to keep that other ultimate energy-source (upon which all life in the natural biosphere, and human communities, including human life, depends) flowing into the biosphere. We need to make some connections between literature and the sun, between teaching literature and the health of the biosphere.

Energy flows from the poet's language centers and creative imagination

into the poem and thence, from the poem (which converts and stores this energy) into the reader. Reading is clearly an energy transfer as the energy stored in the poem is released and flows back into the language centers and creative imaginations of the readers. Various human hungers, including word hunger, are satisfied by this energy flow along this particular energy pathway. The concept of a poem as stored energy (as active, alive, and generative, rather than as inert, as a kind of corpse upon which one performs an autopsy, or as an art object one takes possession of, or as an antagonist—a knot of meanings—one must overcome) frees one from a variety of critical tyrannies, most notably, perhaps, that of pure hermeneutics, the transformation of this stored creative energy directly into a set of coherent meanings. What a poem is saying is probably always less important than what it is doing and how—in the deep sense—it coheres. Properly understood, poems can be studied as models for energy flow, community building, and ecosystems. The first Law of Ecology—that everything is connected to everything else—applies to poems as well as to nature. The concept of the interactive field was operative in nature, ecology, and poetry long before it ever appeared in criticism.

Reading, teaching, and critical discourse are enactments of the poem which release the stored energy so that it can flow into the reader—sometimes with such intensity that one is conscious of an actual inflow; or, if it is in the classroom, one becomes conscious of the extent to which this one source of stored energy is flowing around through a community, and of how “feedback,” negative or positive, is working.

Kenneth Burke was right—as usual—to argue that drama should be our model or paradigm for literature because a drama, enacted upon the stage, before a live audience, releases its energy into the human community assembled in the theater and raises all the energy levels. Burke did not want us to treat novels and poems as plays; he wanted us to become aware of what they were doing as creative verbal actions in the human community. He was one of our first critical ecologists.

Coming together in the classroom, in the lecture hall, in the seminar room (anywhere, really) to discuss or read or study literature, is to gather energy centers around a matrix of stored poetic/verbal energy. In some ways, this is the true interactive field because the energy flow is not just a two-way flow from poem to person as it would be in reading; the flow is along many energy pathways from poem to person, from person to person. The process is triangulated, quadrangulated, multiangulated; and there is,

ideally, a raising of the energy levels which makes it possible for the highest motives of literature to accomplish themselves. These motives are not pleasure and truth, but creativity and community.

POEMS AS GREEN PLANTS

Ian McHarg—one of the most profound thinkers I have read who has tried to design a new model of reality based upon ecology—says that “perhaps the greatest conceptual contribution of the ecological view is the perception of the world and evolution as a creative process.” He defines creation as the raising of matter from lower to higher order. In nature, he says, this occurs when some of the sun’s energy is entrapped on its path to entropy. This process of entrapment and creation, he calls—somewhat cophonously—negentropy, since it negates the negative process of entropy and allows energy to be saved from random dispersal and put to creative ends. Green plants, for example, are among the most creative organisms on earth. They are nature’s poets. There is no end to the ways in which this concept can be applied to the human community, but let me stay close to the topic at hand. Poems are green plants among us; if poets are suns, then poems are green plants among us for they clearly arrest energy on its path to entropy and in so doing, not only raise matter from lower to higher order, but help to create a self-perpetuating and evolving system. That is, they help to create creativity and community, and when their energy is released and flows out into others, to again raise matter from lower to higher order (to use one of the most common descriptions of what culture is). One of the reasons why teaching and the classroom are so important (for literature, anyway) is that they intensify and continue this process by providing the environment in which the stored energy of poetry can be released to carry on its work of creation and community. The greatest teachers (the best ecologists of the classroom) are those who can generate and release the greatest amount of collective creative energy; they are the ones who understand that the classroom is a community, a true interactive field. Though few of us—maybe none of us—understand precisely how this idea can be used to the ends of biospheric health, its exploration would be one of the central problems which an ecological poetics would have to address.

THE REMORSELESS INEVITABLENESS OF THINGS

As a classic textbook by E. Odum on the subject tells us, ecology is always concerned with "levels beyond that of the individual organism. It is concerned with populations, communities, ecosystems, and the biosphere." By its very nature it is concerned with complex interactions and with the largest sets of interrelationships. We must remember Commoner's first Law of Ecology: "Everything is connected to everything else." The biosphere (or ecosphere) is the home that life has built for itself on the planet's outer surface. In that ecosphere there is a reciprocal interdependence of one life process upon another, and there is a mutual interconnected development of all of the earth's life systems. If we continue to teach, write, and write about poetry without acknowledging and trying to act upon the fact that— to cite a single example—all the oceans of our home are slowly being contaminated by all the pollutants disposed of in modern communities—even what we try to send up in smoke—then we will soon lose the environment in which we write and teach. All the creative processes of the biosphere, including the human ones, may well come to an end if we cannot find a way to determine the limits of human destruction and intrusion which the biosphere can tolerate, and learn how to creatively manage the biosphere. McHarg and others say that this is our unique creative role, but that as yet we have neither the vision nor the knowledge to carry it out, and that we do not have much more time to acquire both. This somewhat hysterical proposition is why I tried to write this paper and why, true to the experimental motive intrinsic to me as a human being, I have taken on the question of how reading, teaching, and writing about literature might function creatively in the biosphere, to the ends of biospheric purgation, redemption from human intrusions, and health.

As a reader and teacher and critic of literature, I have asked the largest, most important and relevant question about literature that I know how to ask in 1976. It is interesting, to me anyway, that eight years ago, trying to define my position, I was asking questions about the visionary fifth dimension and about how man is released from the necessities of nature into this realm of pure being by means of literature. Four years ago, attempting to do the same thing, I was writing about history as a symbol and about being boxed in the void, convinced that there were no viable concepts of or possibilities for the future, and about literary criticism as a necessary,

endlessly dialectical process which helps to keep culture healthy and viable throughout history.² Nothing about nature and the biosphere in all this. Now, in 1976, here I am back on earth (from my heady space trips, from the rigors and pleasures of dialectic, from the histrionic metaphor of being boxed in the void) trying to learn something about what the ecologists variously call the laws of nature, the "body of inescapable natural laws," the "impotence principles" which are beyond our ability to alter or escape, the remorseless inevitableness of things, the laws of nature which are "decrees of fate." I have been trying to learn something by contemplating (from my vantage point in literature) one of ecology's basic maxims: "We are not free to violate the laws of nature." The view we get of humans in the biosphere from the ecologists these days is a tragic one, as pure and classic as the Greek or Shakespearean views: in partial knowledge or often in total ignorance (the basic postulate of ecology and tragedy is that humans precipitate tragic consequences by acting either in ignorance of or without properly understanding the true consequences of their actions), we are violating the laws of nature, and the retribution from the biosphere will be more terrible than any inflicted on humans by the gods. In ecology, man's tragic flaw is his anthropocentric (as opposed to biocentric) vision, and his compulsion to conquer, humanize, domesticate, violate, and exploit every natural thing. The ecological nightmare (as one gets it in Brunner's *The Sheep Look Up*) is of a monstrously overpopulated, almost completely polluted, all but totally humanized planet. These nightmares are all if/then projections: if everything continues as is, then this will happen. A common form of this nightmare is Garrett Hardin's ironic population projection: if we continue our present 2% growth rate indefinitely, then in only 615 years there will be standing room only on all the land areas of the world.

To simply absorb this tragic ecological view of our present and possible futures (if nothing occurs to alter our anthropocentric vision) into the doomsday syndrome is a comforting but specious intellectual, critical, and historical response: it dissipates action into the platitudes of purely archetypal and intellectual connections. Better to bring Shakespearean and Greek tragedy to bear upon our own biosphere's tragedy as a program for action than this—any day. I will not attempt to deal here with the responses to the tragic/doomsday ecological view generated by a commitment to the economic growth spiral or the national interest. Others have done it better than I ever could. Let me say here that the evidence is so overwhelming and

terrifying that I can no longer even imagine (using any vision) the possibility of ignoring Ian McHarg's mandate in his sobering and brilliant book, *Design With Nature*:

Each individual has a responsibility for the entire biosphere and is required to engage in creative and cooperative activities.

As readers, teachers, and critics of literature, we are used to asking ourselves questions—often very complex and sophisticated ones—about the nature of literature, critical discourse, language, curriculum, liberal arts, literature and society, literature and history; but McHarg has proposed new concepts of creativity and community so radical that it is even hard to comprehend them. As readers, teachers and critics of literature, how do we become responsible planet stewards? How do we ask questions about literature and the biosphere? What do we even ask? These are overwhelming questions. They fill one with a sense of futility and absurdity and provoke one's self-irony at the first faint soundings of the still largely ignorant, preaching, pontificating voice. How does one engage in responsible creative and cooperative biospheric action as a reader, teacher (especially this), and critic of literature? I think that we have to begin answering this question and that we should do what we have always done: turn to the poets. And then to the ecologists. We must formulate an ecological poetics. We must promote an ecological vision. At best, I can only begin here. Following McHarg and rephrasing a fine old adage, we can say that "where there is no ecological vision, the people will perish." And this ecological vision must penetrate the economic, political, social, and technological visions of our time, and radicalize them. The problem is not national, but global, planetary. It will not stop here. As Arthur Boughey points out, "There is no population, community, or ecosystem left on earth completely independent of the effects of human cultural behavior. Now [this human] influence has begun to spread beyond the globe to the rest of our planetary system and even to the universe itself."

THE CENTRAL PARADOX: POWERLESS VISIONS

One has to begin somewhere. Since literature is our business, let us begin with the poets or creators in this field and see if we can move toward a generative poetics by connecting poetry to ecology. As should be clear by

now, I am not just interested in transferring ecological concepts to the study of literature, but in attempting to see literature inside the context of an ecological vision in ways which restrict neither and do not lead merely to proselytizing based upon a few simple generalizations and perceptions which have been common to American literature (at least) since Cooper, and are central to the whole transcendental vision as one gets it in Emerson, Thoreau, Whitman, and Melville. As Barry Commoner points out, "The complex web in which all life is enmeshed, and man's place in it, are clearly—and beautifully—described in the poems of Walt Whitman," in Melville's *Moby Dick* and everywhere in Emerson and Thoreau. "Unfortunately," he says, with a kind of unintentional, but terrible understatement for literary people, "this literary heritage has not been enough to save us from ecological disaster." And here we are back again, before we even start, to the paradoxes which confront us as readers, teachers, and critics of literature—and perhaps as just plain citizens: the separation of vision and action; the futility of vision and knowledge without power. ▽

THE HARSHTEST, CRUELEST REALITIES OF OUR PROFESSION

Bringing literature and ecology together is a lesson in the harshest, cruellest realities which permeate our profession: we live by the word, and by the power of the word, but are increasingly powerless to act upon the word. Real power in our time is political, economic, and technological; real knowledge is increasingly scientific. Are we not here at the center of it all? We can race our verbal motors, spin our dialectical wheels, build more and more sophisticated systems, recycle dazzling ideas through the elite of the profession. We can keep going by charging ourselves back up in the classroom. In the end, we wonder what it all comes down to. Reading Commoner's (or almost any other serious ecologist's) statements, knowing they come from a formidable scientific knowledge, from direct involvement with the problems and issue from a deeply committed human being, can we help but wonder what we are doing teaching students to love poetry, to take literature seriously, to write good papers about literature:

Because the global ecosystem is a connected whole, in which nothing can be gained or lost and which is not subject to overall improvement, anything extracted from it by human effort must be replaced. Payment of this price

cannot be avoided; it can only be delayed. The present environmental crisis is a warning that we have delayed nearly too long.

... we are in an environmental crisis because the means by which we use the ecosphere to produce wealth are destructive of the ecosystem itself. The present system of production is self-destructive. The present course of human civilization is suicidal. In our unwitting march toward ecological suicide we have run out of options. Human beings have broken out of the circle of life, driven not by biological need, but by social organization which they have devised to conquer nature ...

All my literary training tells me that this is not merely rhetoric, and that no amount of rhetoric or manipulation of the language to political, economic, technological, or other ends will make it go away. It is a substantive, biosphere-wide reality we must confront and attempt to do something about.

THE GENEROSITY OF THE POETS

I will use what I know best and begin with the poets. If we begin with the poets (who have never had any doubts about the seriousness and relevance of what they are doing), they teach us that literature is an enormous, ever increasing, wonderfully diverse storehouse of creative and cooperative energy which can never be used up. It is like the gene-pool, like the best ecosystems. Literature is a true cornucopia, thanks to the continuous generosity of the poets, who generate this energy out of themselves, requiring, and usually receiving, very little in return over and above the feedback from the creative act itself.

This is probably nowhere more evident than in a book such as Gary Snyder's *Turtle Island*; or, to take quite a different kind of text, in Adrienne Rich's *Diving into the Wreck*. What the poets do is "Hold it close" and then "give it all away." What Snyder holds close and gives away in *Turtle Island* is a complete ecological vision which has worked down into every detail of his personal life and is the result of many years of intellectual and personal wandering. Every poem is an action which comes from a finely developed and refined ecological conscience and consciousness. The book enacts a whole program of ecological action; it is offered (like *Walden*) as a guide book. It has in it one of the most useful and complete concepts of renewable, creative human energy which can be put to creative and cooperative

biospheric ends that I know of. Its relevance for this paper is probably so obvious that I should not pursue it any longer.

The Generosity of Adrienne Rich's *Diving into the Wreck*

Things are very different in this book of poems, and not immediately applicable to the topic of this paper. But this book is the epitome—for me—of the ways in which poets are generous with themselves and can be used as models for creative, cooperative action. Without exception, the poems in this book are about the ecology of the female self, and they impinge upon the concerns of this paper in their treatment of men as destroyers (here of women rather than of the biosphere, but for remarkably similar reasons). As Margaret Atwood's profound ecological novel, *Surfacing*, makes clear, there is a demonstrable relationship between the ways in which men treat and destroy women and the ways in which men treat and destroy nature. Many of the poems—and in particular a poem such as "The Phenomenology of Anger"—are about how one woman changed and brought this destruction and suppression to an end, and about what changes must occur to bring the whole process to an end. A mind familiar with ecology cannot avoid the many profound and disturbing connections to be made here between women and western history, nature and western history.

The Deconstructive Wisdom of W. S. Merwin's *Lice*

One of the most continuously shattering experiences of my intellectual life has been the reading, teaching, and thenceforth re-reading and re-teaching of this book of poems. This is one of the most profound books of poems written in our time and one of the great ecological texts of any time. What ever has been argued from factual, scientific, historical, and intellectual evidence in the ecology books that I read is confirmed (and more) by the imaginative evidence of this book of poems. Merwin's generosity consists in the extraordinary efforts he made to deconstruct the cumulative wisdom of western culture and then imaginatively project himself into an almost unbearable future. Again, as with Adrienne Rich, these poems are about the deep inner changes which must occur if we are to keep from destroying the world and survive as human beings. I know of no other book of poems so aware of the biosphere and what humans have done to destroy it as this one. Reading this book of poems requires one to unmake and

remake one's mind. It is the most painfully constructive book of poems I think I have ever read. What these poems affirm over and over is that if a new ecological vision is to emerge, the old destructive western one must be deconstructed and abandoned. This is exactly what Rich's poems say about men and women.

The Energy of Love in Walt Whitman's *Song of Myself*

This energy flows out of Whitman into the world (all the things of the world) and back into Whitman from the things of the world in one of the most marvelous ontological interchanges one can find anywhere in poetry. This ontological interchange between Whitman and the biosphere is the energy pathway that sustains life in Whitman and, so far as he is concerned, in the biosphere. There is a complete ecological vision in this poem, just as there is in Whitman's conception of a poetry cycle which resembles the water cycle within the biosphere. Whitman says that poems come out of the poets, go up into the atmosphere to create a kind of poetic atmosphere, come down upon us in the form of poetic rain, nourish us and make us creative and then are recycled. Without this poetic atmosphere and cultural cycle, he says, we would die as human beings. A lovely concept, and true for some of us, but it has not yet resolved the disjunction (as Commoner points out) between vision and action, knowledge and power.

The Biocentric Vision of Faulkner's *Absalom, Absalom!*

Can we not study this great fiction, and its central character, Thomas Sutpen, in relation to one of the most fundamental of all ecological principles: "That nature is an interacting process, a seamless web, that it [nature] is responsive to laws, that it constitutes a value system with intrinsic opportunities and constraints upon human use." There is an ecological lesson for all of us in the ferocious destructiveness of human and natural things brought about by Thomas Sutpen.

Looking upon the World, Listening and Learning with Henry David Thoreau

Does he not tell us that this planet, and the creatures who inhabit it, including men and women, were, have been, are now, and are in the process

of becoming? A beautiful and true concept of the biosphere. His model of reality was so new, so radical even in the mid-nineteenth century, that we have still not been able to absorb and act upon it more than a hundred years later.

Entropy and Negentropy in Theodore Roethke's "Greenhouse," "Lost Son," and "North American Sequence"

Was there ever a greater ecological, evolutionary poet of the self than Roethke, one who really believed that ontology recapitulates phylogeny, one so close to his evolutionary predecessors that he experiences an interchange of being with them and never demeans them with personification and seldom with metaphor. Kenneth Burke's brilliant phrase—vegetal radicalism—still takes us to the ecological centers of Roethke, self-absorbed, self-obsessed as he was.

But enough of this. The poets have always been generous. I mean only to suggest a few ecological readings of texts I know well. Teaching and criticism are the central issues here, so let me move on toward some conclusions.

TEACHING AND CRITICAL DISCOURSE AS FORMS OF SYMBIOSIS

"Creativeness is a universal prerequisite which man shares with all creatures." The central, modern idea of the poet, of literature, and of literary criticism is based upon the postulate that humans are capable of genuine creation and that literature is one of the enactments of this creative principle. Taking literature to ecology by way of McHarg's statement joins two principles of creativity so that humans are acting in concert with the rest of the biosphere, but not necessarily to the ends of biospheric health. That has always been the problem. Some of our most amazing creative achievements—say in chemistry and physics—have been our most destructive. Culture—one of our great achievements wherever we have gone—has often fed like a great predator and parasite upon nature and never entered into a reciprocating energy-transfer, into a recycling relationship with the biosphere. In fact, one of the most common antinomies in the human mind is between culture/civilization and nature/wilderness. As Kenneth Burke

pointed out some time ago, man's tendency is to become rotten with perfection. As Burke ironically formulated it, man's entelechy is technology. Perceiving and teaching (even writing about) human creativity in this larger ecological context could be done in all literature courses and especially in all creative writing courses. It could only have a salutary effect. It would make the poet and the green plants brothers and sisters; it would charge creative writing and literature with ecological purpose.

Symbiosis, according to McHarg, is the "cooperative arrangement that permits increase in the levels of order"; it is this cooperative arrangement that permits the use of energy in raising the levels of matter. McHarg says that symbiosis makes negentropy possible; he identifies negentropy as the creative principle and process at work in the biosphere which keeps everything moving in the evolutionary direction which has characterized the development of all life in the biosphere. Where humans are involved and where literature provides the energy source within the symbiotic arrangement, McHarg says that a very complex process occurs in which energy is transmuted into information and thence into meaning by means of a process he calls apperception. As McHarg demonstrated in his book, both the process of apperception and the meaning which results from it can be used to creative, cooperative ends in our management of the biosphere. The central endeavor, then, of any ecological poetics would have to be a working model for the processes of transformation which occur as one moves from the stored creative energy of the poem, to its release by reading, teaching, or writing, to its transmutation into meaning, and finally to its application, in an ecological value system, to what McHarg variously calls "fitness and fitting," and to "health" — which he defines as "creative fitting" and by which he means to suggest our creation of a fit environment. This work could transform culture and help bring our destruction of the biosphere to an end.

Now there is no question that literature can do all this, but there are a lot of questions as to whether it does in fact do it, how, and how effectively. All these concerns might well be central for teachers and critics of literature these days. We tend to over-refine our conceptual frameworks so that they can only be used by a corps of elitist experts and gradually lose their practical *relevance* as they increase their theoretical *elegance*. I am reminded here of the stridently practical questions Burke asked all through the thirties and early forties and of the scorn with which they were so often greeted by literary critics and historians of his time. But none of these questions

is antithetical to literature and there is a certain splendid resonance which comes from thinking of poets and green plants being engaged in the same creative, life-sustaining activities, and of teachers and literary critics as creative mediators between literature and the biosphere whose tasks include the encouragement of, the discovery, training, and development of creative biospheric apperceptions, attitudes, and actions. To charge the classroom with ecological purpose one has only to begin to think of it in symbiotic terms as a cooperative arrangement which makes it possible to release the stream of energy which flows out of the poet and into the poem, out of the poem and into the readers, out of the readers and into the classroom, and then back into the readers and out of the classroom with them, and finally back into the other larger community in a never ending circuit of life.

BUT . . .

I stop here, short of action, halfway between literature and ecology, the energy pathways obscured, the circuits of life broken between words and actions, vision and action, the verbal domain and the non-verbal domain, between literature and the biosphere—because I can't go any further. The desire to join literature to ecology originates out of and is sustained by a Merwin-like condition and question: how can we apply the energy, the creativity, the knowledge, the vision we know to be in literature to the human-made problems ecology tells us are destroying the biosphere which is our home? How can we translate literature into purgative-redemptive biospheric action; how can we resolve the fundamental paradox of this profession and get out of our heads? How can we turn words into something other than more words (poems, rhetoric, lectures, talks, position papers—the very substance of an MLA meeting: millions and millions of words; endlessly recirculating among those of us in the profession); how can we do something more than recycle WORDS?

Let experimental criticism address itself to this dilemma.

How can we move from the community of literature to the larger biospheric community which ecology tells us (correctly, I think) we belong to even as we are destroying it?

■ ■ ■ *Free us from false figures of speech.*

NOTES

I have not documented all of the quotations from, paraphrases of, and references to ecological works because there are so many of them and I wanted the paper to be read right through. The paper is literally a kind of patchwork of ecological material. I have identified my major sources and resources in the bibliography. The only things I felt should be identified were my own works because the references to them would be obscure and quite incomprehensible otherwise.

1. In "Literary Criticism and History: The Endless Dialectic," *New Literary History* 6 (1974-75): 491-512.
2. Respectively, in (a) "Kenneth Burke and Structuralism," *Shenandoah* 21 (Autumn 1969), 19-28; (b) "Literary Criticism and History"; and (c) "History as Symbol: Boxed in the Void," *Iowa Review* 9.1 (Winter 1978): 62-71.

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