A DIFFERENT YIELD

Linda Hogan

Hosanna! The corn reached total zenith in crested and entire August. The space of summer arched earth to autumnal fruit. Out of cold and ancient sod the split of protein, the primal thunder. In the mayanface of the tiny kernel look out the deeps of time, space, and genes. In the golden pollen, more ancient and fixed than the pyramids, is the scream of fleeing Indians, germinal mirror of endurance, reflections of mothers of different yield.

A woman once described a friend of hers as being such a keen listener that even the trees leaned toward her, as if they were speaking their innermost secrets into her listening ears. Over the years I've envisioned that woman's silence, a hearing full and open enough that the world told her its stories. The green leaves turned toward her, whispering tales of soft breezes and the murmurs of leaf against leaf.

When I was a girl, I listened to the sounds of the corn plants. A breeze would begin in a remote corner of the field and move slowly toward the closest edge, whispering. After corn harvest at my uncle's farm, the pigs would be set loose in the cornfield to feed on what corn was left behind, kernels too dry for picking, too small for sale, or cobs that were simply missed by human hands. Without a moment's hesitation, the pigs would make straight for any plant that still held an ear of corn, bypassing the others. They would listen, it seemed, to the denser song of corn where it still lived inside its dress of husk.

When I first heard of Barbara McClintock, it confirmed what I thought to be true about the language of corn. McClintock is a

R&L 26.1 (Spring 1994)

biologist who received a Nobel Prize for her work on gene transposition in corn plants. Her method was to listen to what corn had to say, to translate what the plants spoke into a human tongue.

In *A Feeling for the Organism*, Evelyn Fox Keller writes that McClintock came to know each plant intimately. She watched the daily green journeys of their growth from earth toward sky and sun. She knew her plants in the way a healer would know them, from inside, from the inner voices of corn and woman. Her approach to her science was alive, intuitive, and humane. It was a whole approach, one that bridged the worlds of woman and plant, and crossed over the boundary lines between species. Her respect for life allowed for a vision expanded enough, and sharp enough, to see more deeply into the mysteries of matter than did other geneticists who were at work on the same problems. Her revelation of method astonished the scientific community. She saw an alive world, a fire of life inside plants, even plants other than the corn: "In the summertime, when you walk down the road, you'll see that the tulip leaves, if it's a little warm, turn themselves around so their backs are toward the sun. Within the restricted areas in which they live, they move around a great deal. These organisms are fantastically beyond our wildest expectations."

In her book, *Adam's Task*, Vickie Hearne writes about the same kind of approach, only with animals, that McClintock used. She says there are things to be gained by respecting the intelligence of animals: "With horses, respect usually means respecting their nervousness, as in tales of retreating armies on horseback traversing minefields, in which the only riders who survive are the ones who gave their horses their heads, or tales of police horses who snort anxiously when a car in a traffic jam turns out to be carrying the thieves who escaped capture six months earlier."

These last years, it seems that much contemporary scientific exploration has been thrown full tilt into the center of one of those minefields, and is in search of a new vision, and of renewed intuitive processes of discovery that go beyond our previous assumptions about knowledge. This new requirement of thought turns out to be one that can only be called a leap of faith. "Over and over again," Keller says of McClintock, "she tells us one must have the time to look, the patience to 'hear what the material has to say to you. One must have a feeling for the organism.' "

A few years ago I was fortunate to meet a Jamaican artist named Everald Brown. Brown lives in a rural mountain town, one where houses have settled in with the enduring red earth. He creates carv-

ings, paintings, and musical instruments that are radiantly alive with a resonance reaching far beyond the material, and far beyond the creations of most other artists who work with the same wood and pigment. Brown is what Jamaicans call an "intuitive artist," though he himself says only that the doves have taught him his craft. One of his intricately carved stringed instruments is painted with a blue sky. White, luminous doves are flying across it. And his wood carvings, made of lignum vitae, the tree of life, are rich with the lives of animals and birds emerging from the heavy center of wood.

Many creative people have called their inspiration, "the muse." Often they say their ideas come from a spirit world, from a life other than their own human life. Even the Bible is a work so described by its authors; it is the voice of God.

Artist Paul Klee once said that we must return to the origins of things and their meanings, to the secret places where original law fosters all evolution, to the organic center of all movement in time and space, which is the mind or heart of creation.

This organic center, the center of creation, comes down to us through long traditions of learning the world's own songs. In American Indian traditions, healers are often called interpreters because they are the ones who are able to hear the world and passing its wisdom along. They are the ones who return to the heart of creation.

When we go back in human history, we find that it is not only the people now recognized as continuing in a tribal tradition who have known the voices of earth, how corn both sings her own song and also grows better with the songs and prayers of the people. Western traditions of consciousness also derive from this approach to original, or aboriginal, ways of knowing. Orpheus, for instance, was able to communicate with the worlds of animals, plants, water, and minerals. Psyche, for whom psychology was named, fell weeping on the ground, and while she was there the ants offered a solution to the impossible task she was assigned, that of separating a mountain of grain before dawn. The river reeds also passed along their secrets to Psyche, instructing her in the way to gather wool from golden sheep.

From nearly all traditions, account after account tells of stones giving guidance, as with Crazy Horse, the Lakota prophet and politician who took his direction from a stone he wore beneath his arm. There are tales of the trees singing, the corn that is called by the Mayans, "the grace," telling stories of inner earth.

In recent times, the term "myth" has come to signify falsehood, but when we examine myths, we find that they are a high form of

truth. They are the deepest, innermost cultural stories of our human journeys toward spiritual and psychological growth. An essential part of myth is that it allows for our return to the creation, to a mythic time. It allows us to hear the world new again. Octavio Paz has written that in older oral traditions an object and its name were not separated. One equalled the other. To speak of corn, for instance, was to place the corn before a person's very eyes and ears. It was in mythic time that there was no abyss between the word and the thing it named, but he adds that, "as soon as man acquired consciousness of himself, he broke away from the natural world and made himself another world inside himself."

This broken connection appears not only in language and myth but it also appears in our philosophies of life. There is a separation that has taken place between us and nature. Something has broken deep in the core of ourselves. And yet, there is another world created inside the person. In some way the balance between inner and outer worlds struggles to maintain itself in other and more complex ways than in the past. Psychologist C. A. Meier notes that as the wilderness has disappeared outside of us, it has gone to live inside the human mind. Because we are losing vast tracts of the wilderness, we are not only losing a part of ourselves, he says, but the threat to life which once existed in the world around us, has now moved within. "The whole of western society," he says, "is approaching a physical and mental breaking point." The result is a spiritual fragmentation that has accompanied our ecological destruction.

In a time of such destruction, our lives depend on this listening. It may be that the earth speaks its symptoms to us. Not long ago there was a nuclear reactor accident in Chernobyl, Russia. It was not the authorities who told us that the accident had taken place. It was the wind. The wind told the story. It carried a tale of splitting, of atomic fission, to other countries and revealed the truth of the situation. The wind is a prophet, a scientist, a talker.

These voices of the world infuse our every act, as much as does our own ancestral DNA. They give us back ourselves, point a direction for salvation. Sometimes they even shake us down to the bedrock of our own human lives. This is what I think happened in the 1970s language experiments in which chimpanzees were taught Ameslan, American Sign Language. In *Silent Partners*, Eugene Linden discusses the results of experiments with American Sign Language and chimpanzees. Probably the best known chimp is Washoe, a wild-caught chimpanzee who learned to use 132 signs, was able to ask questions and to use the negative. The book is extremely significant to our

times, not because of what it tells us about apes and their ability to communicate in signs, so much as what it reveals about human beings and our relationships with other creatures.

The heated debates about the experiments came to revolve around whether or not it was actual language the chimps used. The arguments centered on definitions of language and intelligence, obscuring the real issue, that of how we treat other living beings. A reader comes to wonder how solid we are in the security of both ourselves and our knowledge when an issue of such significant scientific and spiritual importance sparks such a great division of minds, but if we are forced to accept that animals have intelligence, language, and sensitivity to pain, including psychological trauma, this acceptance has tremendous consequences for our own species and for our future actions.

While Linden says that "it is a little unsettling to be confronted with an animal who does not automatically acknowledge your paramountcy in the natural hierarchy," he also says that the experiments were disquieting not only because of the tragic consequences they created for the animals involved but because they also revealed the very fragile underpinnings of science. At the very least, the questions raised throughout this project were primarily questions about ourselves, our own morality, our way of being in the world, and our responsibility for the caretaking of the earth.

Vickie Hearne, on the same topic of language experiments, says we are facing an intellectual emergency. I want to take that word, "emergency," a step further than the meaning it has come to hold for us, for this is not merely a crisis of the mind, but it is a potential act of emergence, of liberation for not only the animals of earth, but for our own selves, a freedom that could very well free us of stifling perceptions that have bound us tight and denied us the parts of ourselves that were not objective or otherwise scientifically respectable. When Linden notes that one of the chimp experimenters who came to care deeply for her subjects was outlawed from the world of science, I was reminded of how, during the 1970s when Harry Harlowe was conducting torturous research on chimps at the University of Wisconsin, one of the female students was found holding and comforting a chimp that was in pain. This act of compassion led Harlowe to conclude that there was a maternal instinct in women that kept them from objectivity, and that therefore they were not suited to the work of science. But even aside from that, the experiments were carried out to tell researchers what humans could have told them directly about their lives and needs, and not have been believed.

We have arrived despairingly at a time when compassion and care

are qualities that do not lend themselves to the world of intellectual thought. Jimmie Durham, a Cherokee writer who was a prime mover in the development of an International Treaty Organization, wrote a poem called "The Teachings of My Grandmother," excerpted here:

> In a magazine too expensive to buy I read about
> How, with scientific devices of great complexity,
> U.S. scientists have discovered that if a rat
> Is placed in a cage in which it has previously
> Been given an electrical shock, it starts crying.
>
> I told my grandmother about that and she said,
> "We probably knew that would be true."

It might be that Linden comes close to the center of the dilemma about whether or not apes have language and intelligence, when he says, "Perhaps it would be better to stick to figuring out the nature of stars and matter, and not to concern ourselves with creatures who threaten to paralyze us by shedding light on the true nature and origins of our abilities. Dismaying as this may sound, it is quite possible that we cannot afford to know who we are."

Not only have our actions revealed us to ourselves, and sometimes had dire results, but among many peoples educated in many European philosophical traditions, there is also an intense reaction to the bad news that cruelty is cruelty. There is a backlash effect that resists peacemaking. In 1986, I heard Betty Williams, a 1977 Nobel Peace Prize laureate from Northern Ireland, lecture in South Dakota. One afternoon Williams had witnessed the bombing death of Irish children. A little girl died in Williams' arms. The girl's legs had been severed in the explosion and had been thrown across the street from where the woman held the bleeding child. Williams went home in shock and despair. Later that night, when the shock wore off, the full impact of what she'd seen jolted her. She stepped outside her door, screaming out in the middle of the night. She knocked on doors that might easily have opened with weapons pointed at her face, and she cried out, "What kind of people have we become that we would allow children to be killed on our streets?" Within four hours the city was awake and there were sixteen thousand names on petitions for peace.

Williams' talk was interrupted at this point by a man who called out, "You're sick." Undisturbed by the heckler, Williams went on to tell how, touring the world as a peacemaker, she had left the starving people in Ethiopia for an audience with the Pope. He told her, "I feel so worried about the hungry people," to which Williams

responded, "Don't worry about them. Sell the Michelangelo and feed them."

Such a simple thing, to feed people. Such a common thing, to work for peace. Such a very clear thing, to know that if we injure an animal, ravage the land, that we have caused damage. And yet, we have rampant hunger and do not know, can hardly even imagine, peace. And even when animals learn to speak a language, and to communicate their misery, we still deny them the right to an existence free from suffering and pain.

I want to make two points here. One is about language and its power. While we can't say what language is much beyond saying that it is a set of signs and symbols that communicates meaning, we know it is the most highly regarded human ability. Language usage, in fact, often determines social and class order in our societal systems. Without language, we humans have no way of knowing what lies beneath the surface of one another. And yet there are communications that take place on a level that goes deeper than our somewhat limited human spoken languages. We read one another via gesture, stance, facial expression, scent. And sometimes this communication is more honest, more comprehensible, than the words we utter.

These inner forms of communication are perhaps the strongest core of ourselves. We have feelings that can't be spoken. That very speechlessness results in poems that try to articulate what can't be said directly, in paintings that bypass the intellectual boundaries of our daily vision, and in music that goes straight to the body. And there is even more a deep-moving underground language in us. Its currents pass between us and the rest of nature. It is the inner language that Barbara McClintock tapped for her research.

Hearne cites instances in which animals have responded to these inner languages of people. The famous case of the horse, Clever Hans, is one of these. Hans was a horse that could do mathematical calculations and otherwise answer questions by tapping his hoof on the ground. As it turned out, Hans did not do the actual equations. Instead, he read the body language of the persons testing him. "Hans could always find out what the questioner thought was the correct answer, no matter how hard the questioner worked at remaining still and impassive. Hans apparently read minute changes in breathing, angles of the eyebrows, etc. with an accuracy we have trouble imagining." Hans' owner was denounced as a fraud. But, as Hearne points out, wasn't it a remarkable thing that the horse knew so well how to

read people, even those other than his owner? They could not conceal from him the correct answer.

The critics of the ape language experiments worked vigorously to discredit the careful work of the researchers and one of the variables they mentioned was this kind of unconscious leakage.

Another point that needs to be made is that when issues become obscured by distorted values or abstract concepts, we lose a clarity that allows us to act even in our own best behalf, for survival not just of ourselves but of the homeland which is our life and our sustenance. These responses stand in the way of freedom from pain. They obstruct the potentials we have for a better world. It is a different yield that we desire.

It must have been obvious at the inception of the language experiments that the work's very design was to determine whether or not a speaking ape might have a consciousness similar to that of a human. However, the results were distressing and the fate of the signing chimpanzees has been disastrous, some of them having been sold to research labs for other kinds of experimentation, including AIDS research.

We might ask what is to be gained by bridging the species gap? If it is, indeed, to determine intelligence levels, it seems that the talley on the side of the chimpanzees adds up to more points than ours, since the chimps are now bilingual. But, whatever the impetus, Linden says that the loser in the conflict concerning human and animal community is science. And while the chimps are the primary victims of this ongoing struggle, we also are "victims of a skewed view of our relationship with the rest of the natural order."

What we really are searching for is a language that heals this relationship, one that takes the side of the amazing and fragile life on our life-giving earth. A language that knows the corn, and the one that corn knows, a language that takes hold of the mystery of what's around us and offers it back to us, full of awe and wonder. It is a language of creation, of divine fire, a language that goes beyond the strict borders of scientific inquiry and right into the heart of the mystery itself. LeSueur writes: "Something enters the corn at the moment of fusion of the male and female that is unknown to scientists. From some star, a cosmic quickening, some light, movement-fast chemical that engenders illuminates quickens the conception, lights the fuse." Life itself, though we live it, is unknown to us. It is an alchemical process, a creative movement and exploration with the same magic in mind as the researchers had when they originated their search for meaning and relationship within the world.

We are looking for a tongue that speaks with reverence for life, searching for an ecology of mind. Without it, we have no home, have no place of our own within the creation. It is not only the vocabulary of science we desire. We want a language of that different yield. A yield rich as the harvests of earth, a yield that returns us to our own sacredness, to a self love and respect that will carry out to others.

In most southwestern Indian cultures, the pollen of corn is sacred pollen. It is the life-giving seed of creation and fertility. Anthropologist Ruth Underhill wrote that Papago planters of corn would speak to the life-sustaining plants. "Night after night," she says, "the planter walks around his field, singing up the corn":

The corn comes up;
It comes up green;
Here upon our fields
White tassels unfold.

Blue evening falls;
Blue evening falls;
Near by, in every direction,
It sets the corn tassels trembling.

I know that corn. I know that blue evening. Those words open a door to a house we have always lived in.

Once, I ground corn with a smooth, round stone on an ancient and sloping metate. Leaning over, kneeling on the ground, grinding the blue corn, seeing how the broken dry kernels turned soft, to fine meal, I saw a history in that yield, a deep knowing of where our lives come from, all the way back to the starch and sugar of corn.

She, the corn, is called our grandmother. She's the woman who rubbed her palms against her body and the seeds fell out of her skin. That is, they fell from her body until her sons discovered her secrets. Before she left the world, she told them how to plant. She said, plant the beans and corn together, plant their little sister, squash, between them. This, from an oral tradition, came to be rediscovered hundreds of years later, almost too late, by agriculturalists in their research on how to maintain the richness of farm soil.

Cherokee writer Carroll Arnett once gave me a bracelet of corn. There were forty-nine kernels, representing the number of clans, stitched round in a circle of life. I said, If I wear it when I die and am buried, won't it be wonderful to know that my life will grow up, out from beneath the earth? My life inside the green blades of corn, the stalks and tassels and flying pollen? That red corn, that corn will be this woman.

Imagine a woman, a scientist, listening to those rustling stalks, knowing their growth so intimately that "She could write the autobiography of every plant she worked with." What a harvest. What a different yield. In it is the pull of earth and life. The fields are beautiful.

Corn meal and pollen are offered to the sun at dawn. The ears of the corn are listening and waiting. They want peace. The stalks of the corn want clean water, sun that is in its full clean shining. The leaves of the corn want good earth. The earth wants peace. The birds who eat the corn do not want poison. Nothing wants to suffer. The wind does not want to carry the stories of death.

At night, in the cornfields, when there is no more mask of daylight, you hear the plants talking among themselves. The wind passes through. It's all there, the languages, the voices of wind, dove, corn, stones. The language of life won't be silenced.

In Chaco Canyon, in the center, my sister Donna told me, there is a kiva, a ceremonial room in the earth. This place has been uninhabited for what seems like forever. It has been without water so long that there are theories that the ancient people disappeared as they journeyed after water. Donna said that there was a corn plant growing out of the center of the kiva. It was alone, a single plant. It had been there since the ancient ones, the old ones who came before us all, those people who wove dog hair into belts, who witnessed the painting of flute players on the seeping canyon walls, who knew the stories of corn. There was one corn plant growing out of the holy place. It planted itself yearly. It was its own mother. With no water, no person to care for it, no turning over of the soil, this corn plant rises up. Earth yields. We probably knew that would be true.

Do you remember the friend that the leaves talked to? We need to be that friend. Listen. The ears of the corn are singing. They are telling their stories and singing their songs. We knew that would be true.