

Nature Study



First Nations People

*Teaching About Native American
Culture & Ecology*



(see page 31)

Whole Volume 46

March 1994

A JOURNAL OF ENVIRONMENTAL EDUCATION AND INTERPRETATION

FROM THE EDITOR

Why? How? When? Where? What?

I listened in horror as the cry "Woo Woo Woo Woo" rang through the woodland, and was answered by another group approaching on a different path, "Woo Woo Woo". As the docents and interns of the environmental center gathered in a circle to begin a workshop on Eastern Woodland people and their environments, I threw all the things I had learned in a lifetime of teaching to the winds and greeted them with unconcealed anger, "Why would you do a racist thing like that?"

The young leader of the interns looked at me in consternation. "Was it really wrong? I am sorry. I wouldn't want to be a racist. I was looking forward to this. I don't really know very much but I do have an Indian great grandmother, so I'm a little bit Indian myself."

Obviously, there were other things to be discussed and taught before we looked at Mayapples and blooming spicebushes.

When I think of the sad history of the past 400 years, I realize that our problems stem from a number of attitudes and that these must be faced before any real teaching will take place. Unless children learn:

- Of the universality of humans, their worth, their dignity, their capacity for love and suffering, regardless of culture, language or color.

- Of the beauty, the wonder, the completeness of a healthy earth.

- Of the interwoven patterns of that Earth, the circles, spirals, webs and cycles and of the destruction that breaking these natural relationships produce.

- Of a sense of time. When I walk into a classroom and see posters saying, "This is the way the Indians lived. This is the way I live," I know that not only are the Native Americans being short changed, so are our modern day children. Chauvinism is destructive to all concerned. Furthermore, the things that are pictured have nothing to do with health, family or happiness.

- Children need values. They need to know the joy of giving and of saying, and meaning, "thank you."

All too often children in our "gimme" society grow up self-indulgent and greedy. How many of the historic conflicts between The First Nations People and the European settlers arose from greed? The settlers in Georgia and North Carolina and the Cherokees in the mountains lived next to each other for more than 200 years until gold was discovered in the mountains. Then the Cherokees were forcibly removed to Oklahoma.

It was gold that provoked the Battle of Little Bighorn and the ensuing tragedy of Wounded Knee. The buffalo had been almost exterminated on the Great Plains; the food and culture base of the Sioux nations had been destroyed, clearing the way for railroads

and Western expansion. The Sioux were rounded up and given a reservation in the Black Hills of South Dakota. Then Custer discovered gold; the Sioux were told they had to move again. In more recent years it is oil in Alaska, uranium in Grand Canyon, logs in the temperate rain forests, water in the Southwest that is coveted and stolen. Sometimes from First Nations People on reservations, sometime from the land that we all hold: the National Parks, National Forests and the National Monuments.

Five years ago I stood in Dinosaur National Monument enjoying the huge *in situ* fossils. We followed ancient trails to the sweat lodge and the petroglyphs left by the Fremont Peoples. It was an exciting site. A site which for me had special significance for in the 1950's my classes at Fitchburg State College had joined forces with thousands of other people to protest the building of a dam that would have flooded this entire area. To me Dinosaur stands as a monument to what can be accomplished when concerned, responsible people join together.

And there have always been concerned responsible people. In the early 1600's Anne Hutchinson and Roger Williams were both arrested and driven out of Massachusetts for preaching and teaching that taking Wampanaug lands was wrong, that the King of England did not own the land just because his ships docked there.

Social change is slow but when people work together, standing shoulder to shoulder, making a circle of caring, we can make a difference. To do this we may join environmental or Native American groups. Our memberships are important but even more than money is our involvement, our willingness to learn, our willingness to pick up pen or phone, or fax.

This Journal is a blending of nature, the environment, history, art, and language arts. The subject is vast. Five hundred years ago more than 500 Nations existed in North America alone. Today there are many books to choose from. (For a beautiful sampling of the variety of people & cultures that existed in the area that is now continental United States, obtain a copy of the October 1991 National Geographic.)

What we teach should depend on the age group of our students and our geographic area. Four year olds want to know about "mommies and daddys," family relationships and caring. By middle school, history and environmental responsibility begins to be meaningful at all levels of teaching.

To effectively teach about First Nations People we must first deal with misconceptions, bad history and TV drama.

Helen Ross Russell

A NOTE ABOUT THIS ISSUE

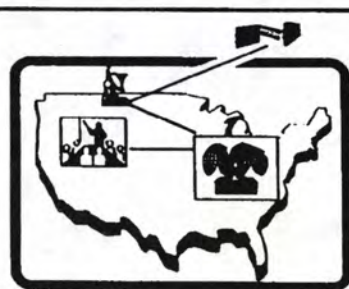
It has taken longer than usual to get this issue of NATURE STUDY ready for publication, but we think you'll agree that it was worth the wait. Editor Helen Russell, working with an all-volunteer crew of writers and editors, has taken care to produce a volume which makes a major contribution to the better understanding of Native American people and their land ethic. Because of the size of this issue and the time involved in its production, we have designated it Whole Volume 46.

It was ten years ago that we produced our first issue devoted to Native Americans; it proved to be one of our most popular.

Additional copies of this issue "First Nations People" can be obtained for \$5.00 plus \$1.00 shipping, for a total of \$6.00/copy. Send requests to:

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We May Be Brothers After All

Chief Seattle

In 1854 President Franklin Pierce made an offer for a large area of Indian land. The following is the reply from Chief Seattle of the Duamish Tribe. It has been described as the most beautiful statement on the environment ever made.

How can you buy or sell the sky, the warmth of the land? The idea is strange to us. If we do not own the freshness of the air and the sparkle of the water, how can you buy them?

Every part of this earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every clearing and humming insect is holy in the memory and experience of my people. The sap which courses through the trees carries the memories of the red man.

The white man's dead forget the country of their birth when they go to walk among the stars. Our dead never forget this beautiful earth, for it is the mother of the red man. We are part of the earth and it is part of us. The perfumed flowers are our sisters, the deer, the horse, the great eagle, these are our brothers. The rocky crests, the juices in the meadows, the body heat of the pony, the man—all belong to the same family.

So, when the Great Chief in Washington sends word that he wishes to buy our land, he asks much of us. The Great Chief sends word he will reserve us a place so that we can live comfortably to ourselves. He will be our father and we will be his children. So we will consider your offer to buy our land. But it will not be easy. For this land is sacred to us.

This shining water that moves in the streams and rivers is not just water but the blood of our ancestors. If we sell you land, you must remember that it is sacred and you must teach your children that it is sacred and that each ghostly reflection in the clear water of the lakes tells of events and memories in the

life of my people. The water's murmur is the voice of my father's father.

The rivers are our brothers, they quench our thirst. The rivers carry our canoes, and feed our children. If we sell you our land, you must remember, and teach your children, that the rivers are our brothers and yours, and you must henceforth give the rivers the kindness you would give any brother.

We know that the white man does not understand our ways. One portion of land is the same to him as the next, for he is a stranger who comes in the night and takes from the land whatever he needs. The earth

is not his brother, but his enemy, and when he has conquered it, he moves on. He leaves his fathers' graves behind, and he does not care. His fathers' graves and his children's birthright are forgotten. He treats his mother, the earth, as things to be bought, plundered, like sheep or bright beads. His appetite will devour the earth and leave behind only a desert. I do not know. Our ways are different from your ways. The sight of your cities pains the eyes of the red man. But perhaps it is because the red man is a savage and does not understand.

There is no quiet place in the white man's cities. No place to hear the unfurling of leaves in spring, or the rustle of an insect's wings. But perhaps it is because I am a savage and do not understand. The clatter only seems to insult the ears. And what is there to life if a man

cannot hear the lonely cry of the whippoorwill or the arguments of the frogs around a pond at night? I am a red man and do not understand. The Indian prefers the soft sound of the wind darting over the face of a pond, and the smell of the wind itself, cleansed by a mid-day rain, or scented with the pinon pine.

The air is precious to the red man, for all things share the same breath—the beast, the tree, the man, they all share the same breath. The white man does



Eagle by Mark Henderson, a Kwakwih from Vancouver Island. His unique style is related to the historic wood carvings.

not seem to notice the air he breathes. Like a man dying for many days, he is numb to the stench. But if we sell you our land, you must remember that the air is precious to us, that the air shares its spirit with all the life it supports. The wind that gave our grandfather his first breath also receives his last sight. And if we sell you our land, you must keep it apart and sacred, as a place where even the white man can go to taste the wind that is sweetened by the meadow's flowers.

So we will consider your offer to buy our land. If we decide to accept, I will make one condition: The white man must treat the beasts of this land as his brothers.

I am a savage and do not understand any other way. I have seen a thousand rotting buffalos on the prairie, left by the white man who shot them from a passing train. I am a savage and I do not understand how the smoking iron horse can be more important than the buffalo that we kill only to stay alive.

What is man without the beasts? If all the beasts were gone, man would die from a great loneliness of spirit. For whatever happens to the beasts, soon happens to man. All things are connected.

You must teach your children that the ground beneath their feet is the ashes of our grandfathers. So that they will respect the land, tell your children that the earth is rich with the lives of our kin. Teach your children what we have taught our children, that the earth is our mother. Whatever befalls the earth befalls the sons of the earth. If men spit upon the ground, they spit upon themselves.

This we know: The earth does not belong to man: man belongs to the earth. This we know. All things are connected like the blood which unites one family. All things are connected.

Whatever befalls the earth befalls the sons of the earth. Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself.

Even the white man, whose God walks and talks with him as friend to friend, cannot be exempt from the common destiny. We may be brothers after all. We shall see. One thing we know, which the white man may one day discover, our God is the same God. You may think now that you own Him as you wish to own our land, but you cannot. He is the God of man, and his compassion is equal for the red man and the white. This earth is precious to Him, and to harm the earth is to heap contempt on its Creator. The whites too shall pass, perhaps sooner than all other tribes. Contaminate your bed, and you will one day suffocate in your own waste.

But in your perishing you will shine brightly fired by the strength of the God who brought you to this land and for some special purpose gave you dominion over the red man.

That destiny is a mystery to us, for we do not understand when the buffalo are all slaughtered, the wild horses are tamed, the secret corners of the forest heavy with scent of many men, and the view of the ripe hills blotted by talking wires. Where is the thicket? Gone. Where is the eagle? Gone. The end of living and the beginning of survival.



TRACKING, A STORY

Tracking a Deer is like a story
a reflection of all life
following each track
each step a discovery
another chapter in the story

Why the jump over here? pause here? what is
the purpose of these actions?
You need but look at your own tracks
for our tracks are like the Deer
sometimes fast, other times slow
every so often a mistake
then a solution
a step backward
a step in another direction

Like the Deer
our tracks grow with age
mistakes seem more easy
harder to cover up
deeper tracks with age
we need to step more carefully

For these tracks we leave
we cannot change
as the days go on they begin to fade
harder to follow
retracing our own tracks
is impossible
we must always work on new ones improving
each step

Those who are trackers
can read these tracks
learn from them
and if the tracks are good
follow them with grace

Jim Bruchac



Teaching About American Indians

Ned Coates

So you're going to teach about Indians. Perhaps it's been mandated. Perhaps it's the way you want to go. Certainly teaching about society and the environment through a Native American approach is fashionable. But you have misgivings: you're not Native American (Oh maybe a trace) and you can't call in a local exemplary Native spokesperson for more than a one-time appearance for a unit of study or to provide a strand of awareness to be woven throughout a whole" program or class year. So it's up to you. "Well first, what do I call these people?" you ask. "How do they refer to themselves?" Most likely as

Indian people(s) Indians	<i>Possibly confused with citizens of India, but usually clear in context.</i>
indigenous people(s)	<i>Emphasizes millennia on this continent, but perhaps too stuffy for repeated use.</i>
Native people(s) Native Americans	<i>"Politically correct," but capital <u>N</u> not distinguishable by hearers.</i>
American Indians	<i>Clearest in most situations, though <u>American</u> is ambiguous (U.S.? North? South?).</i>
First Nations People	<i>A relatively new but explicit designation that emphasizes both the early history and the variety of cultures.</i>

So any of these can be appropriate in certain contexts. However, Native people in the U.S. and Canada will most likely identify themselves first by nation or tribe: Mohawk, Wampanoag, Yurok, Cree, etc.

"But isn't the nation the United States or Canada or a Latin American country?" you might ask. Some Indians would agree to such nationalities, but many groups that non-Indians might call tribes have a view of themselves as part of a sovereign entity, as in the Seneca Nation, one of six nations to make up the Iroquois Confederacy, the People of the Longhouse, or Haudenosaunee. An Iroquois can point to the fact that his people refused the citizenship forced upon them by the United States in 1924.

"It's looking complicated," you say? Well, very little is simple and absolute in the discussion of American Indians as a whole. In fact, it's usually best not to begin an assertion by saying, "American Indians believe..." for there are over five hundred distinguish-

able groupings of Native peoples in North America today, so generalizations usually must be qualified. And it is certainly inaccurate and insensitive to say "American Indians believed..." for being relegated to past tense is one of the great frustrations for Native people, most of whom are proud of their living and always evolving cultures. Indeed, the teacher must avoid seeing American Indians as locked in the past, for the automobile and the telephone are modern continuities of past modes of travel and communication for Indians just as they are for all Americans. Throughout Indian America we can find a built-in acceptance and anticipation of change. Part of the creation mythology of many Southwestern peoples is the Emergence, an evolutionary progression upward toward the sun. The spiritual implications are obvious, and the metaphor can be applied to each individual as well as to each tribe or nation. Prophecies of Hopi and Algonquin-speaking peoples, to mention a few, tell of changes to come at the meeting of people with different values. American Indian cultures, while maintaining traditional knowledge and values, are essentially dynamic.

Does this dynamism and diversity mean that we can make no generalizations about American Indians? Fortunately not, for much knowledge, many perspectives and attitudes are shared widely among Native peoples from South America to the Arctic tundra. A spiritual leader of Mexico's Mexica (Aztec) people, Tlakaelel, claims to be able to participate with understanding in Native ceremonies from Central America to Canada. In leading nature study and presenting Indian cultures, the teacher can discuss the "three sisters": corn, beans, and squash, the symbiotic planting found in variants throughout much of the Americas. In so doing, the teacher can correct the common misconception in students that Indians of the past were primarily hunters and gatherers, whereas they were, unless the growing season prohibited it, primarily growers. Even what might seem to us to be wild rain forest was, and often still is, managed growth. Native teachers claim that nearly every square mile of the Northeast was cared for.

The teacher can likewise put to rest the misconception that much of what is now the United States was sparsely populated. It was not. Even the Native name for the tidewater area of Maryland and Virginia



Woven Moose Hair - Mohawk

translated as “densely populated.” In the last few decades, estimates of the Native population at the time of the European encounter have continually increased. It was the devastation by European diseases, often in advance of any European settlers, that gave substance to the view that the land was not being used, as well as the European assumption that forest land was idle land. How large populations lived off the land and from the waters without clear-cutting these forests and depleting fisheries is a tribute to Native resource management. Though exceptions can be suggested about pre-contact ecological success—the Mayans in Yucatan and Central America and the Hohokam in the Southwest, for example—agricultural prowess and the management of natural resources seem to be hallmarks of Native American cultures.

Another shared attitude, again with variants, is that on matter itself. In Mexico, a movement to reinstate the ancient knowledge from oral tradition teaches that the science of the Toltecs and their heirs, the Mexica and other Nahuatl-speaking people, holds that everything is energy. The intellectuals of Mexico, it is said, proclaimed this understanding at least as early as the time of Christ. Though the Spanish burned the books of the Mexica and the written record is lost, the claim is made, with evidence hinted in the mythic representations of forces personified as deities, that this theory of energy spawned studies into the medicinal energies of plants, the energies of planetary and lunar gravitational pulls on the earth, the effects of color and light, and the use of crystals and metals to supposedly bring the body into balance. This idea that things have special energies finds its counterparts among Indians north of Mexico, where it is often taught that material things are alive, or have spirit. Or it may in terms of pantheism be said that all things share in the Spirit of the World, the Great Spirit, the Great Holy Mystery, as the concept may be called. Though not quite the same as saying that everything is a unique manifestation of energy, the attitude of respect for the natural world that results is the same.

Traditional Indians approach these special energies of plants for their beneficial qualities as food and medicine. And teachers should be prepared for the question “What’s it good for?” Though a traditional Indian might say that a plant is good simply as a manifestation of creation, the satisfying nature lesson will do more than encourage appreciation of a plant’s uniqueness.

So what *are* they good for? Naturalist Jon Young of the Wilderness Awareness School of Red Bank, New Jersey, says that even poison ivy is good for

making us aware. Without some dangers, we wouldn’t see; we would too often walk obliviously. The teacher discussing Native American uses of plants is probably going to be asked also, “How did the Indians find out that a plant is good for some obscure ailment and for nothing else?” The answer given by an Ojibway herbalist is that “the plants told us.”

Here we have it, the real cultural barrier: traditional Indians believe humans can communicate with plants! Why not? We are communicating pretty well with dolphins and gorillas. And if plants are different in that they can’t make sounds and gestures, perhaps they have other means. It takes, apparently, an “altered state” of consciousness to communicate with them. But altered states are accepted and sought in Indian cultures. And can we say that any of us is fully conscious anyhow? Though it can be argued that the state in which one seems to commune with a cedar is delusory or hallucinatory, it cannot be denied that the tree was at least a passive catalyst, a sounding board, a kind of mirror or symbol that evoked a unique response. Hopis sing to the corn. People claim their house plants grow better when talked to. Does the plant just get a carbon dioxide boost from the proximity of humans (which doesn’t account for the Hopi practice)? Even so, breath and spirit have been equated in the Bible and in all traditions. This merging of empirical and spiritual realms is common to Indians.

But such a perspective on our relationship to the plant kingdom may have to be side-stepped by the teacher who is challenged by students and their parents who take a strictly empirical view or who espouse certain religious beliefs. The cry of “pseudoscience,” “New Age,” or “Satanism” may follow any approach that hovers on mysticism or that sees no separation between the Creator and the Creation.

A response to this challenge may be to secularize the approach. The teacher can talk about the interrelationships of biological species without mentioning spirit. Though, alas, the American Indian essence has been removed, the information base remains valid. Did the American chestnut tree, as Jon Young wonders, disappear as a dominant species in Eastern forests because the manuring of the woods by millions of passenger pigeons ended with the eradication of those birds? Certainly the chemical treatment of lawns connects with reduced songbird populations. What may be the effects of electric bug zappers on the creatures about us? If Indian spirituality is the recognition and appreciation of the connection of all things, this awareness can be transferred to students without religious references.

However, if the teacher of nature study has no opportunity
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Hopi Wedding Shawl

Where Are The People In The Environment?

How does this relate to "We may be brothers?"

Ruth Jacquot

...man dissevered from the earth and stars
and his history...for contemplation or in fact...
Often appears atrociously ugly. Integrity is wholeness,
the greatest beauty is
Organic wholeness, the wholeness of life and things, the divine
beauty of the universe.
Love that, not man
Apart from that ...

*"The Answer" by Robinson Jeffers
Selected Poetry of Robinson Jeffers
Random House, New York, 1966*

Robinson Jeffers' contention that man is an intrinsic part of nature and that the entirety of nature is what is beautiful and worthy of our love has inspired some active research on my part. It was the purpose of this research to gain insight into the extent to which this philosophy is held by groups to whom I spoke. What began as mild curiosity has developed into a pattern of introducing ideas about the environment. It is not claimed that this line of inquiry has produced statistically significant, valid and replicable data. However, a pattern of responses has developed which is worth reporting. As might be expected, more questions than answers are generated from this line of inquiry. It is my hope that by sharing this experience, more questions such as this will be raised.

For the past four years, I have begun presentations to civic groups, to university classes and to workshops by asking the audience to respond immediately to a request. The request was this: "Close your eyes and look closely at the picture which comes to your mind when I say 'the environment'." In a few seconds, I then ask the group to share their imagery. The respondents have been willing, even eager to share their scene. They are also curious about what other people's imagination provided when the word was brought to mind. In order not to skew the answers with directed questions, I ask them to tell me about their picture by giving forced choices rather than open-ended descriptions.

The series of questions has been ordered to disguise the purpose of the inquiry. The question about people in the picture is therefore imbedded in a series of similar questions, ranging from general to specific. The series of questions is: 1. "How many people envisioned a scene which was in a forest?" Answers vary

from 80 to 100%, but it is interesting to note that almost everyone sees a picture which is green and that more people see a vista than a close-up view. This may simply be a reaction to the immediate environment, because for the most part, the participants are from the Midwest and Southeast. Audiences in the Southwest, for example, might view a desert scene. 2. "How many people had water - a stream, river, lake, ocean - in their picture?" Answers range from 70 to 100% - depending on the group and their response to question 1. 3. "How many had animals in their picture?" Answers range from 40 to 80%, with variations of animals...but usually large animals such as deer or large carnivores. 4. "How many had people in the picture?" Responses have followed a consistent pattern with every group - except one. Less than 10 % of the responders imagine a picture which contains people. In some groups, not one person has envisioned people as a part of the environment. The one exception to this 10% response was in a small group of directors of environmental education centers. It is assumed that this question has been part of their learning and teaching about the environment and that they therefore are looking at a picture which has been used before and given much thought. In this group of nine people, five viewed pictures with people in them.

It has been of interest to find that humanity's effect is sometimes in the pictures (and not included in the 10%), and that it may be a picture which is a pastoral scene, or it shows a negative impact such as a polluting smokestack, a ravaged beach or a landfill. Of the 10% or less who do have humans in the picture, these humans are usually the person themselves regarding a wilderness scene or enjoying a pastoral setting, a sort of third/first person view. There has not been one scene described in which a person is seeing themselves as the negative actor in a scene of environmental degradation.

There can be many speculations about these responses, but it is my contention that this is more than an interesting rhetorical phenomenon. I believe that these reactions are a product of a commonly held belief system which does not see humans as a part of nature, but that holds that the environment is only beautiful and real when people are not there or have not been there. The philosophical basis for such a belief system may be religious teaching, or a "Bambi"

view of the environment. Or, a response such as this may express a lack of experience in nature or a continuation of the "manifest destiny" philosophy which grew out of the settlement of this country. It may also be an outgrowth of a rather Hobbesian philosophy about the nature of humanity in contrast to the nature of the environment.

A recent visit to a Russian classroom raises the question of a cultural basis for this philosophy. A third grade teacher began the class by asking "What is man?" Years of catechism training nearly brought a religious response to my mind, but the children responded in a chorus (similar to the Sunday School class process) "Man is a piece of nature." The questioning went on, with learned responses leading in chorus to the concept that we must take responsibility for our actions against nature and be mindful of our role as steward of nature. Linguistics surely play a

"Behold, my brothers, the spring has come; the earth has received the embraces of the sun and we shall soon see the results of that love! Every seed is awakened and so has all animal life. It is through this mysterious power that we too have our being and we therefore yield to our neighbors, even our animal neighbors, the same rights as ourselves, to inhabit this land."

Sitting Bull

role in this line of thought, since there is not a literal translation of the English word "environment" in Russian. Most frequently the terms "ecology" or "nature" are used for the English concept of the total environment, which theoretically could include humans.

There are perhaps many more rationales for the absence of humans in people's snapshot pictures of "the environment." These pictures from memory or imaginings have been the basis for sharing some thoughts about people's place in the universe and their niche in the environment. While the philosophical basis of this system of belief is important, what is most critical is how and what environmental educators teach about the place of people in nature. This question is central to one's value system and guides our actions toward our environment.

Until we take a firm position on the matter of our relation to the rest of the world, living and non-living, we cannot hope to have a significant impact on the most important problems which have become environmental. Legislation cannot carry the entire burden of bringing about a healthier environment. We must depend on the caring, positive actions and good will of individual citizens. This is the basic rationale behind environmental education.

The problems of resource conservation, of maintenance and of population control are standing on shaky philosophical ground unless we see ourselves as a part of, not apart from, the system within which we live and from which we derive the resources to live our lives. As people lose direct contact with this system, it becomes more difficult to impress on students of all ages that we really do belong in the picture of the environment. If it is a generally held belief that we are not intrinsically a part of the system that we classify as natural, then we as educators and environmentalists are taking an indefensible position in trying to influence people to follow natural laws in their choices and behaviors. We are not above the law - natural law, that is. And being subject to it calls for knowledge of how humans and nature interact, not of a natural history which does not include us.

As a naturalist, I used to cringe when teachers would introduce children to the park by saying, "This is the home of the animals, and you are visitors to their home." I tried to find ways to counter this concept whenever possible. Sometimes I was able to use the Jack-in-the-Pulpit. When, upon an examination of Jack in his pulpit, children were asked what they thought Jack might be saying, I tried to include the thought that Jack might be saying "Welcome home! You belong here! These are your woods, too"

This is a nice thought, but it doesn't reflect the way most people feel or live. Our lack of continued exposure to the natural history of our own immediate surroundings is breeding an even deeper division between people and their environment. We as environmental educators and naturalists have an increasingly difficult task.

Imagine a children alienated from their heritage by family breakdown, or entire cultures torn apart by civil war. What becomes of family traditions, of cultural traditions, of literature, music, those things which make up a family or cultural life? They lose their significance to following generations. Our relationship within the environment is similar. We are learning to define ourselves not only as the problem and the solution to the problems of the environment, but as visitors in the natural world. We as a people are losing our traditions and practices which identify us as part of the natural world. Specialization, industrialization, urbanization, education - these have all served to remove us from participation in the rhythms, the extremes, the beauty and the consequences which are a part of living closer to nature.

At the university where I teach, there is a program of "environmental immersion" as part of a science/social studies methods class. All students must participate in a weekend activity in a large natural area which is designed to provide maximum contact between people and nature. Recently, while sharing a morning sunrise with a group of students, some of them said that they had never watched a sunrise

before. This revelation was not so surprising when one considers that they had also never taken a closer look at the ground beneath a rotting log, poked at a mass of salamander eggs in a pond, sat alone in the woods for any length of time or shared any of these experiences with someone who was important to them. These symptoms of the alienation of people and their natural environment may not be the root of the problem but it is the barrier to the solution. Unless people have experiences which allow them to care for the continued health of their natural environment, then the only environment worth their attention, effort and caring will be of their own creation. The best teacher, the most knowledgeable environmentalist, the finest curriculum or the most gripping documentary will not remove this barrier to caring, knowledgeable participation in improving our environment. Who we are must be defined in terms of who we are in relation to the environment. We are a part of the picture, not apart from it.



Dr. Ruth Jacquot is director of the Center for Environmental Education at Murray State Univ., Murray, KY 42071

"Even the seasons form a great circle in their changing, and always come back again to where they were. The life of man is a circle from childhood to childhood and so it is in everything where power moves. Our tipis were round like the nests of birds and they were always set in a circle, a nation's hoop, a nest of many nests where the Great Spirit meant for us to hatch our children."

Black Elk

Readings which expand this train of thought are:

The Turning Point "The Turning of the Tide" Chapter 1
Fritjof Capra, and

Earth in the Balance "Dysfunctional Civilization" Chapter 12
Al Gore, and

Envisioning a Sustainable Society "Stories About the Way the World Works: Belief Paradigms" Chapter 6
Lester Milbrath,

and so will sharing with children:

The Indian Way, "Learning to Communicate with Mother Earth," John Muir Publications \$9.95, writ-

ten by Gary McLain (Eagle/Walking Turtle) an Irish/Choctaw artist and writer.

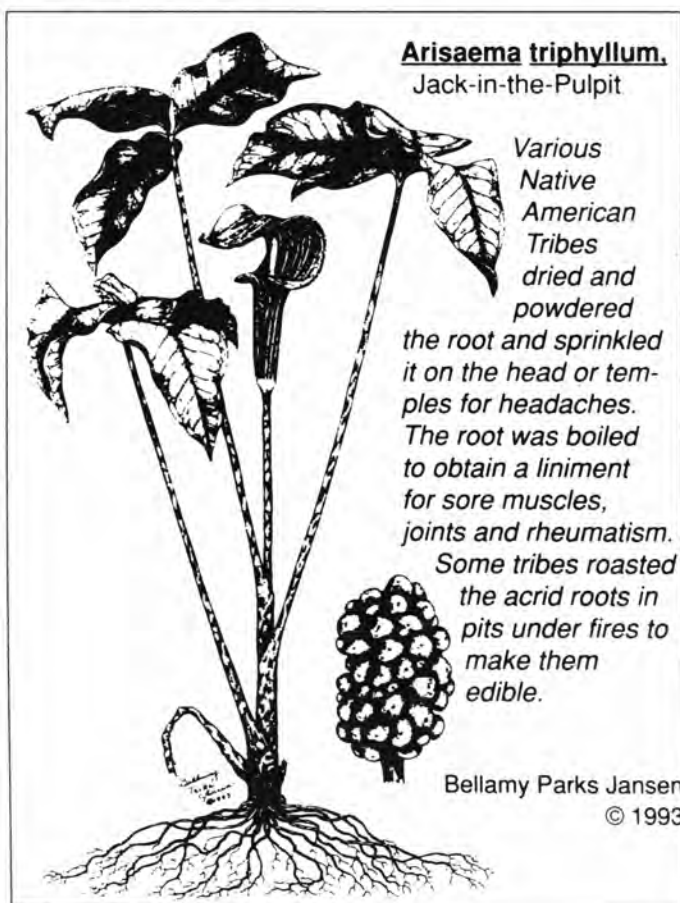
In this book Grandfather Iron tells stories of the twelve moons weaving together legends, history, nature observation, activities and, most important, a sense of belonging to and loving the Earth. Contrast the introduction to this book with the story told by Ruth Jacquot.

The Indian Way is about how Native Americans once looked at and lived within our environment. Many still follow this way today. It is a philosophy that has much to teach us.

All the stories in this book, about food, elders, the home, animals, art, and so forth, are closely related to each other, and all of these things make up the environment we live in. It is not good to live well in just one area of our lives and not others. All must receive equal attention.

While there are many different kinds of solutions offered to modern problems of pollution, waste, and abuse of the earth and sky, this way of seeing ourselves as just one part of – not better than – the landscape is a good beginning. If each of us starts from within ourself, we can reach out to the whole world and make it better for all earth's living things – people, animals, plants, water, and air.

Join with me to listen to Grandpa Iron's stories. Follow his wisdom.



Arisaema triphyllum.
Jack-in-the-Pulpit

Various Native American Tribes dried and powdered

the root and sprinkled it on the head or temples for headaches. The root was boiled to obtain a liniment for sore muscles, joints and rheumatism.

Some tribes roasted the acrid roots in pits under fires to make them edible.

Bellamy Parks Jansen

© 1993

New York City Pre-History

Susan J. Miller

GETTING SOME HELP FROM HISTORIC NATIVE AMERICANS

To help us imagine how the prehistoric Native Americans lived, anthropologists, scientists who study cultures, use information from historic Native People who were descendants of our prehistoric Native Americans. After Europeans came to New York City, most of the Native People here died of imported diseases, were killed, or ran away to join other Native People. The groups that our people joined were 1) the Munsee, 2) the Lenape (also called Unami and Delaware), and 3) possibly the Unquachog. For details from that time, look for writers who lived with our Native Americans and their descendants while they were still in the east: John G.E. Heckewelder, David Zeisberger (both Moravian missionaries) and William Penn. Some of our Native People stayed and intermarried with Blacks and Europeans.

We can use only a tiny bit of evidence from the historic period, because life changed very much for most Native People after Europeans came. What we can definitely use is information about the way the Native Americans treated each other, the way they respected the spirit world, and other basic beliefs and values.

Chiefs were not needed by Native Americans because the bands were small and scattered - that is, until someone had to represent the Native People in the sale of their lands in the New York City area.

War leaders were not needed until the European fur trade and settlements made the leftover hunting and fishing areas worth fighting about. No laws were needed to tell Native People right from wrong. Everyone knew it was right to be kind and good. Everyone knew it was wrong to hurt another in any way. Government, in the way we know it, was not needed. The Native People were free and they loved their freedom, but they knew they were not free to hurt another person. This is called self-government. If someone was hurt by another, the guilty person was punished by the hurt person or his family band. Fair punishment had been agreed on for hundreds of years.

These beliefs are not unusual for deeply religious people. The Native Americans believed that the Great Creator created all things and sent good spirits to help people. If one led a good life, one could live with him in the after life. All of nature - animals, plants, streams, trees, - everything - contained a spirit. If a spirit was in everything, then everything was to be pleased and respected. The Sun was the spirit

stepfather who had the job of giving sunlight. The Moon was the spirit elder brother who protected and guarded people at night. The four parts of the earth, and the winds that come from them, were guarded by 4 powerful grandmother spirits. The earth was thought of as the Mother of all life. . . and everyone was grateful for her blessings. All of rich Mother Earth was open for anyone to hunt or to fish.

Native Americans showed how grateful they were by never wasting the gifts of Mother Earth. The spirits of any plant or animal that was taken were thanked for their gifts. The spirits of medicine plants was so important that special thanks were given before the plants were taken. The historic Delaware in Pennsylvania smoked an offering to the four Grandfathers to take pity and bless the sick person.

Sometimes the tobacco was buried in the ground by the medicine man, as with this similar Chippewa medicine plant prayer: "You were allowed to grow here for the benefit of mankind, and I give you this tobacco to remind you of this so that you will do the best you can for me."

People who had the gift of communicating with the spirits, especially for healing the sick, were highly respected. Healing ceremonies were combined with family herbal cures. Modern "holistic medicine" was a gift of the Native Americans.

Sometimes special ceremonies and feasts were held. Many people came to important ceremonies, especially to give thanks at maize harvest time, for example. Ceremonies were also held in the spring to celebrate new life. So you see that some ceremonies were held alone, some with only the family, and some with the entire band of related people.

This quote compares Native and European values. In 1633 David De Vries, tells what a Native American had said about the European contact: "He told how we first came upon their coast; that we sometimes had no victuals; they gave us their Turkish beans and Turkish wheat, they helped us with oysters and fish to eat, and now for a reward we had killed their people..."

We can use other information from early European contact to help us understand how our prehistoric people lived. Anthropologists say we must remember to use only what the earliest Europeans saw, not what was written later. Why can't we use what was written later, after Europeans had been living here for years?

But beware! A good scientist-detective will NOT

use European writing unless there is archaeological evidence that says the same thing. The following quotes have some archaeological evidence to support them.

The house "contained a great quantity of maize, and beans of last year's growth, and there lay near the house for the purpose of drying enough to load three ships, besides what was growing in the fields." (De Laet, with Henry Hudson)

"All the inhabitants of this place are very fond of agriculture, and provide themselves with Indian corn for the winter, which they store in the following manner: they make trenches in the sand..., some five or six feet deep... Putting their corn and other grains into large grass sacks, they throw them into these

trenches and cover them.... taking them out as their needs require." (Champlain)

"They had copper tobacco pipes and other things of copper they did wear about their necks." (Robert Juet, shipmate of Henry Hudson)

The use of copper came to New York City during the Woodland period. It was a special copper that could be pounded into shapes. It is called "Native Copper" and came all the way from the Great Lakes area, especially Michigan. Other cultures nearer to the Michigan area had used it earlier and made many objects, such as hunting points, axes, and needles. In New York City archaeologists find mostly copper beads.

GOOD NEWS FOR THE COOK!

The earlier stone pots were hard to make and heavy to carry. The best stone for bowls had come from far away. And then it happened - CLAY POTS came to New York City!

Archaeologists don't know how, or who, but they do know when: about 3,000 years ago, or 1,000 B.C. The evidence is usually only broken pieces of pots which archaeologists call "sherds". After years of finding pottery sherds, they tell us that the popular styles changed over the years.

The Native women dug clay from clay pits, such as the one on Staten Island, They kept the clay as dry powder, adding water and tiny broken rocks or shells, called "temper" when they were ready to make pots.



Powdering the clay.



Wetting and kneading the clay



Adding temper

Our Native women usually built their pots by adding coils of clay one on top of the other.



In our area, they most often smoothed the coils together with a cord-wrapped paddle.

Fishing in New York City had been going on for thousands of years before the Europeans arrived. New York City has very special rivers called estuaries. An estuary is a freshwater river that empties into salt water bays or oceans. The part that meets is mixed water. Some fish (like sea bass) and shellfish (like oysters) can be regularly found in this mixed water.

An estuary can be a very wonderful place to fish when it is time for fish to migrate through them. Salmon, sturgeon, shad, and alewives migrate, or travel, from salt water to fresh water to lay eggs. Eels also pass through estuaries but the eel migrates from fresh water to salt water to lay its eggs.



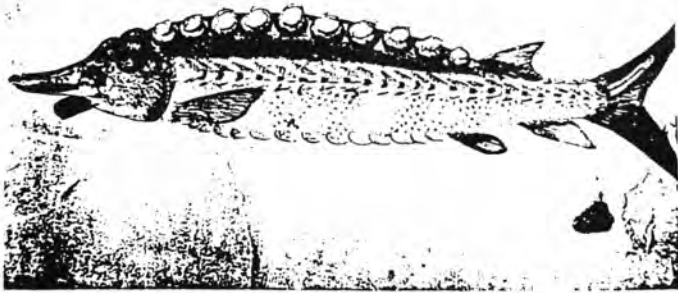
American eel



Atlantic salmon

PORCUPINE QUILL DECORATION

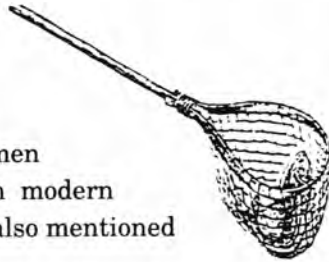
Scales of the Atlantic Sturgeon were found at the Ryder's Pond site in Brooklyn. Large flat stone cutters were found there also. Archaeologists think they were for cutting the big fish that was normally 1,000 pounds. The Atlantic Sturgeon is very rare in modern times.



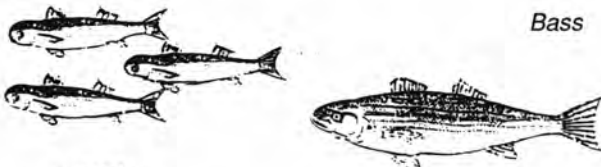
Atlantic Sturgeon

The people fished at the fresh water rivers, lakes, and ponds, and at the Hudson River estuary and in the bays of New York harbor.

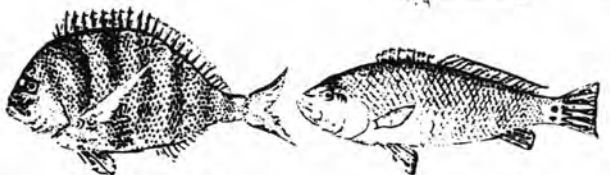
The fish seen and drawn by John White are still taken by fishermen around New York City in modern times. These fish were also mentioned by Van der Donck.



Mullets



Bass



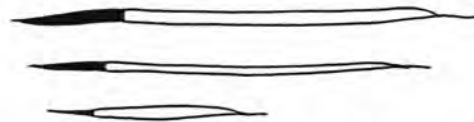
Sheepshead

Drum

Decoration of clothing and containers with porcupine quills is a craft unique to the native people of North America. Outstanding examples that survive today illustrate the major accomplishment of the women of North America who discovered the possibilities of dyeing the whitish, tubular quill of the porcupine and perfected techniques for its use to embellish clothing and other personal articles.

The quill resembles a round, hollow tube. It is white, with a brownish tip. Both ends of the quill are sharp, and the smaller end is also barbed. Thousands of quills cover the body of a single porcupine. Vegetal matter was boiled with the quills to give them color. The quills were moistened to soften them, flattened and then applied to hides, or leather, in patterns that are similar in appearance to the outline and satin stitch of embroidery. The threads used to fasten the quills to the hide were usually sinew, the tendon muscle of the deer. It seems likely since the North and Northeastern sections of the continent are the natural habitat of the porcupine, that the craft originated there and spread to the Plains area. Many fine examples of quillwork were produced by people on the Plains who had to acquire the quills in trade. Techniques, dyes, and design patterns differed from one region to another, though there is much evidence of a continual exchange of ideas. By the 1800's, trace beads had supplanted the quills in popularity, probably because beads were easier to handle. However, the older techniques and styles had a strong influence on the development of bead decoration and often both beads and quills were used on the same article.

Porcupine quills differ in length, thickness and stiffness, depending on their location on the animal's body. Four sizes are usually distinguished; those from the tail are the longest and thickest and measure about four inches. The finest are from the belly and are about one inch long. The width of the quills varies from 1/16th to 3/32nds of an inch in diameter. Different sizes were kept in separate containers.



The equipment needed for quillwork was simple and consisted of pouches for holding the quills, a bone marker for tracing patterns, an awl for piercing the hide, sinew thread, and a knife.

This material comes from NYC Pre-History, a unit of study prepared for fourth grade by Susan J. Miller. It consists of videos, teacher information and student activities. Susan is a curriculum coordinator and conducts in-service courses for teachers. Her address is 100 Second Place, Brooklyn, NY 11231-752



The Educating Of Native Peoples

Lessons of the Past - Foundations of the Future

Ron Clees

A group of Lummi children are gathered around a tribal elder, a grandmother to many of them. She is telling of her experiences as a child when her mother took her out to gather wild plants. As the children listen intently, she explains how plants are used as medicines, teaching the Lummi names for the herbs and where they grow. The children are learning valuable information as a tribal elder shares her life experiences and relates humorous tales.

This scene could have taken place during the tenth or eleventh centuries in the Pacific Northwest. It is, however, occurring in the late 20th century at the Lummi Early Childhood Education Center; one example of how education can preserve traditional tribal language, customs and spirituality and also teach academic skills. For the Lummi this is happening because tribal leaders and parents have taken control of the schooling of their children.¹

Conversely, there stands on an Army post in southeastern Pennsylvania a tragic reminder of what may happen when a people lose control of their most precious resource - their children. One enters the gate of a military-style cemetery in a quiet corner of the U.S. Army War College at Carlisle as a distant bugle sounds. There are no war heroes buried here. The nearly 200 small white gravestones in neat rows bear names such as: "Ernest, Son of Chief White Thunder, Sioux, December 14, 1880;" "Kate Helen Adam, Crow, August 17, 1903;" "Geoffrey Iskie, Apache, July 5, 1889;" "Melissa Metoxen, Oneida, April 6, 1893;" and on and on. All of these children died while students at the Carlisle Indian School. All died many miles from family and homeland and without the proper spiritual burial of their people.

Children at the Carlisle boarding school were subjected to strict military discipline, dressed in uniforms and forbidden to speak their own language. They had been taken from their homes to Carlisle in the

misguided belief that American Indian children could be "Americanized" by destroying their native culture, language and religion.

Although boarding schools like Carlisle have been closed or their methods and philosophy drastically changed, far too few Native American children have an opportunity to attend tribally controlled schools as do the Lummi. However, thanks to the efforts of Indian and non-Indian educators, tribal leaders and elders, parents and even the Bureau of Indian Affairs, the number of such schools is slowly increasing.

Across North America, there are Native American children learning the wisdom of their ancestors along with the academic skills necessary to survive in the 20th and 21st centuries. This trend is also benefiting the larger society. In an era in which the natural world is constantly subjected to the excesses of

Western technology, we have much to learn from Native Peoples who have lived in harmony with the earth for thousands of years. Education, once used by Europeans as



drawn by John W. Brainerd

Wampanaug Village - Where children learned by doing, playing and working with adults.

a tool to destroy native cultures in the name of assimilation, is now being used by Native Americans to perpetuate their traditions and languages.

Although there were nearly 600 different languages and widely varying customs among Native Peoples prior to the arrival of Europeans, a common element in the education of most children was survival, often in an unforgiving environment. If an infant's crying would alert an enemy to the band's hiding place, the child's mother would gently pinch the nose at the first sign of a whimper. Through games, boys were taught to use weapons and develop stamina. Girls used pretend tipis and played at the household skills that they would carry out as adults in order to insure the survival of the family.²

Learning was usually holistic and experiential. To learn to make a basket a child was apprenticed to a basket-maker, first watching and then doing por-

tions of the task, then eventually being able to make the basket. The child would also be taught where and in what seasons to gather the plant materials. Thanks would be offered to the plants for giving their lives to help the people. Thus the child learned not only basketmaking, but also botany, seasonality and spirituality. Culture was also passed on through ceremonies and storytelling.³

The educational methods of arriving Europeans were vastly different. In a French Jesuit Indian school of the 1630's. "the students rose to say their prayers and then go to Mass. After breakfast they were taught reading and writing. After a brief recess, the priest taught them catechism. After dinner they had more prayers with reading in the afternoon. They then had a recreation period, supper, more prayers, then they went to bed."²

In the Spanish Southwest, Franciscans taught Indian children to read so that they could study the Bible to become Christianized and "civilized." The Spanish emphasized vocational skills over academics because Indian labor was needed to support their missions and the hacienda system. Christianized or not, Native Americans in Spain's New World dominions were conquered and brutally forced into labor, an estimated 12,000,000 dying in the first 50 years.⁴

English settlers tended to see Native Americans as a nuisance to be eliminated rather than a source of labor. One way to reduce Indian opposition to colonial expansion was to pressure them into assimilation. This nicely coincided with missionary efforts to persuade Indians to forsake their language and customs and spirituality to become Christians. Missionaries were especially successful where Indian self-reliance was diminished because of war and disease. In Massachusetts Bay Colony, converts were encouraged to adopt white dress and customs, leave their tribal groups and move into "Praying Towns." In the mid-1600's, 14 such praying towns were established with an estimated population of 1000. Although the inhabitants of the praying towns learned both the good and bad ways of whites, their townships were put into trusteeship by the state. By the 1870's political and property rights were virtually eliminated for Indians of Massachusetts.

Much has been done in the name of American Indian education which ultimately only served the purposes of the dominant white culture. The training of Indian youth was a stated goal in the charters of Harvard, Dartmouth, and William and Mary. In 1766 Samson Occum, a converted Mohican, was sent to England by his mentor Eleazar Wheelock to raise

funds for educating Indians. The eleven thousand pounds Occum raised was used by Wheelock to found Dartmouth College.² Dartmouth's impact on Native American education was minimal, graduating fewer than 50 Indian students through 1970.⁴ Dartmouth's current efforts will be described later.

An "educated and civilized Indian" was one who had given up tribal identity, language, spirituality and appearance. The best way to accomplish this was to remove children from their parents and tribe and immerse them in the white man's culture along with a good dose of strict discipline.

The federal government's role in Indian education is based on treaty obligations which usually guaranteed education as well as food and clothing in return for ceding land. By 1842 there were 37 federal Indian schools.⁴



*Symbol of the American
Indian College Fund*

Perhaps the most painful aspect of boarding school was the removal of children from their families. Kiowa author N. Scott Momaday: "The family is a very strong organization in the Indian tribes...Everything that sustained him in life came directly from the immediate relationship of the family . . . The loneliness of the children being uprooted from that and placed in what was effectively a prison had to make for a loneliness that is difficult to imagine."⁸

The Allotment Act of 1887 endeavored to break tribal influence by allotting tribal lands to individuals and selling off the "surplus." In the process, nearly 90 million acres fell into non-Indian hands, Indians became even more impoverished and education continued to suffer at the hands of those who sought to "civilize and Christianize" through government and mission schools. Although the Meriam Report of 1928 deemed the federal boarding school system a failure and called for a curriculum based on local Indian life and experience, no significant changes occurred until the Indian New Deal of the 1930's.

In 1933 a "bohemian social worker," John Collier, was appointed Indian Commissioner.¹⁰ Under his leadership, the Bureau of Indian Affairs abandoned its efforts to assimilate Indians by destroying traditional cultures, reversed the land grab policies of the allotment system, encouraged self government and self determination, assisted Indians in using the land as they desired, and provided cultural and religious liberty.¹¹ Much of the momentum for change initiated during the Indian New Deal was lost during the conservative post World War II period. The federal government began following a policy of "Termination." This was another effort to destroy tribal influence by terminating reservations and federal treaty obliga-

tions. Tribal lands and other assets were to be distributed to tribal members. Native Americans were encouraged to leave the reservations and move to urban areas. Collier's emphasis on Indian culture and language diminished in BIA schools. English language was seen as the key to Indian progress, the old off-reservation boarding schools were reemphasized, and parent and community involvement in schools suffered.

It was not until the late 1960's that the movement toward self-determination again gained momentum, influenced by the social turmoil of the period and by enabling legislation. The American Indian Movement (in addition to its takeover of the BIA Headquarters in Washington DC and occupation of Wounded Knee) sponsored actions at local high schools demanding the teaching of Indian culture and history as well as greater Indian involvement in running the schools. A variety of legislation provided an environment in which Native Americans could begin exercising greater control over their children's education, e.g., Indian Education Act, Economic Opportunity Act (Head Start, Upward Bound, Job Corps, Vista), Indian Self-Determination and Education Assistance Act, expansion of the Johnson-O'Malley Act, etc.²

And what should be the nature of Indian education? Vine Deloria, Jr., Standing Rock Sioux scholar and author, ".... Local control should emphasize control over curriculum, with teaching about tribal history, tribal customs and traditions and tribal languages at the earliest possible age with a maximum use of traditional people."¹⁰ Many educators and Native American leaders now believe that with a knowledge of and respect for their own culture, Indian children will be better prepared for academic success and be able to follow the 19th century advice of Sitting Bull to take what is good of the white culture and reject what is bad.

Throughout the U.S. many schools are successfully combining traditional Indian values with academic achievement. One such school is the Onondaga Indian School in Nedrow, NY on the Onondaga Nation reservation. The school, operated by the Onondaga community, successfully incorporates Iroquois traditions into its teaching. For example, the school closes for mid-winter ceremonials and holds a maple festival at the time of giving thanks to maple trees for their sap.

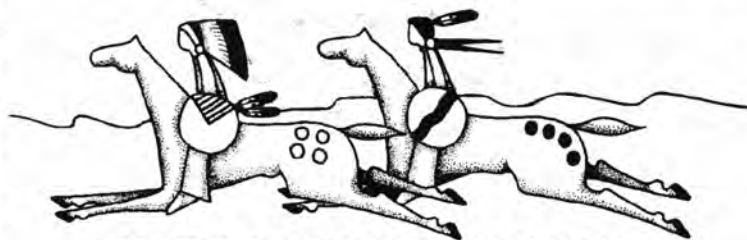
Located in the heart of Navajo land is the Rock Point Community School. As early as 1960, Rock Point recognized the value of the Navajo language by beginning English-as-a-second language instruction

and bilingual instruction in 1967. In 1972 community control was initiated when a school board was elected and it contracted with the BIA to operate its own school. The school was expanded one grade at a time until it graduated high school seniors in 1982. Through the teaching of Navajo language and history, development of Navajo educational materials, training of its own teachers, community involvement and much else, Rock Point has an enviable record of academic achievement in reading, language arts and math. Attendance rates average 94% or better.

The inclusion of tribal knowledge into the school's curriculum is a powerful motivator. In 1979 the Zuni, NM, Public School District inherited a dropout rate of 46% when it broke off from a larger school system perceived as racist and with substandard facilities. Teachers, parents and students were brought together to develop a community-based curriculum. The teaching of Zuni history, culture and language was increased in the schools. After operating for nine

years under local tribal control and public input, the dropout rate fell to 2.8%!¹²

In May 1993, a camera crew representing the Discovery and Learning Channels arrived in Kyle, SD on the Pine Ridge Reservation. They were filming the integration of technology



SINTE GLESKA COLLEGE

and the science curriculum in the classroom of teacher Misty Brave of Little Wound School. Brave connects her students with others in various states via a picture phone. Her use of technology in teaching is supported by the Christa McAuliffe Institute. Barby Halstead-Worrell, producer of the series, comments, "Misty's work broadens the world for kids who are isolated while maintaining the cultural ties. It is important for kids to have pride in their culture and to understand who they are, where they are in the world and within their own community."¹³ And in the school with TV cameras and high technology, John Around Him's students are tracing their family genealogy as a way of learning about their Lakota traditions.

Advancements in Indian education are being made in several different arenas. Special curriculum materials, establishment of tribal colleges and science camps are but a few. In the summer of 1989 the American Indian Science and Engineering Society (AISES) held its first science camp at Clarkson University in Potsdam, NY. Thirty young Native Americans, seventh through ninth grades, from the Mohawk, Seneca, Cayuga, Lumbee and Shinnecock tribes attended. The objective of the camp is stated

by head instructor Misty Brave of Little Wound School, "What we are hoping to achieve here is to see more Indian scientists. We are the minority of the minorities in the science professions, yet we have many problems on our reservations. Who knows better how to solve them than those who live on reservations."¹⁴

The efforts of Native American scientists to solve our pressing environmental problems is certainly welcomed. Western thinking tends to compartmentalize science into many separate disciplines. Native Peoples have, however, understood the natural world in holistic ways for thousands of years. Everything is connected. (See the review of a new science curriculum based on Native American knowledge and philosophy in this issue.)

With a college dropout rate of 55-85% for Native American students, some mainstream colleges and universities have taken steps to reverse this trend. At the Akwekon House on the Cornell University campus 35 students live together; half are Native American. It is part of Cornell's American Indian Program which provides academic and social support for Indian students who often suffer cultural shock upon arriving on the Ivy League campus. Founded in 1981, Cornell's program now has a retention rate of 80-90%.¹⁵ Dartmouth College has a similar program, reversing its abysmal results since its colonial era founding. Today, 80% of American Indian students at Dartmouth graduate compared with a national average of approximately 10%.

On the vast Navajo reservation in northern Arizona a new kind of institution of higher learning appeared in 1968. The first tribally controlled college was founded - Navajo Community College. Today there are 27 tribally controlled colleges making up the Indian Higher Education Consortium. Three are four-year institutions; the rest are two-year.

In addition to providing training in standard academic and vocational areas, tribal colleges give courses in tribal culture, language and traditions. They also integrate Indian thought into the entire curriculum. Tribal colleges tend to take on roles unique to their communities. Turtle Mountain College in North Dakota works closely with a tribally-owned manufacturing plant in training employees and furthering

much needed economic development. On the Flathead reservation in Montana, officials at Salish Kootenai College have developed special programs to deal with the community's alcoholism and unemployment. Little Big Horn College took on the problems of discrimination in voting districts and hiring practices in its community. As a result, Indian political power and job opportunities have greatly improved on the Crow reservation. Tribal colleges are becoming a powerful force for renewal. "...these unique institutions provide routes to advancement for Native Americans who, through education, gain the skills and confidence to rebuild their nations and their cultures."¹⁶

The glowing examples of Indian education cited above should not be construed to mean that all is well. Far too many Native American children are raised amidst poverty, alcoholism, unemployment, poor housing and poor nutrition. Many local public schools have difficulty satisfying the social and cultural needs of Indian children. BIA schools and BIA contract schools have financial problems when federal funds are delayed or budgets cut. Private and mission schools must put enormous efforts into obtaining funds.

We should see the progress that has been made in American Indian education as a tribute to the persistence of Native Peoples and the strength of their traditions.

John Collier, Indian Commissioner during the New Deal: "Harried into the wastes, secreted there for lifetimes, and starving, still the Indian grouphoods, languages, religions, culture systems, symbolisms, mental and emotional attitudes towards self and world continued to live on."¹¹ If Native Americans can survive all this, they have something to say to all of us. As our Western economies struggle and technology degrades the environment, could we perhaps learn from Native Peoples who have lived in harmony with the earth, understood the web of life and maintained their spirituality for thousands of years?



The Oglala Lakota College, incorporating Lakota values and symbols in its efforts to maintain and strengthen Lakota culture, has adopted a symbol that could very appropriately be called the Education Shield of Oglala Division of the Teton Nation. The shield incorporates the traditional Lakota values and symbols with contemporary goals, objectives and philosophy of the Oglala Lakota College.

The peripheral feathers represent the districts of the Pine Ridge Reservation.

The four pipe feathers represent the sacred concept of the winds and the four Lakota virtues of bravery, generosity, fortitude and wisdom.

Finally, and certainly not the least, is the crossed sacred pipes in the center, used for healing and as an instrument for peace.

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continued to page 32

Lenape History Alive In Delaware

—as taught by the Delaware Nature Society

Linda J. Young

Imagine you are among an Algonkian tribe of Native Americans about 500 years ago, in the area now known as Hockessin, Delaware. As you walk through meadows, marshes, and woodland, observe sources of tools, food and medicine. You enter a small bark-covered hut filled with animal skins, gourd bottles, bear grease, mortar-and-pestle, a turkey wing, bows, a deer jaw and other signs of "home."

These are just a few of the experiences obtained in two and a half hours by several thousand school children annually at the Delaware Nature Society's Ashland Nature Center. For the past fifteen years, the Nature Society has offered *Lenape in Delaware* and *Young Lenape* modified frequently to reflect current studies and sensitivities. The objective is for each group of about fifteen students to understand how the Lenape depended upon plants, animals and rocks for survival. At the end of the program, each student should remember at least one piece of clothing, tool, weapon, and food used by the Lenape and know where the materials came from. Volunteer guides carry with them a bag of tobacco, a bag of stone chips, fish-hooks, a deer antler tool, an arrowpoint or spearpoint, a bag of nuts and acorns, and a bag of gathered seeds. While walking, the volunteers note that the only land boundaries

in the days of the Lenape were rivers and mountains and that all tribal members had rights to the use of the land. Guides ask groups to visualize what the land may have looked like in the 1600s. (All forest except for marshes and the flood plain.) How has the creek changed—could we find the same types of food? (Today we find fewer aquatic animals due to pollution and increased sedimentation as the banks were cleared for farming and housing.) Weirs, nets, and hooks were used for catching fish; fire for preserving the catch by smoking and drying.

Throughout the all-outdoor program, plants serve as props for explaining uses and beliefs. Lenapes ground cat-tails and arrowhead roots to make flour, applied jewelweed to relieve poison ivy, dried and cooked skunk cabbage

leaves for eating and brewed willow and cherry bark to treat fever and coughs.

To emphasize the gathering of nuts by the Lenape, students collect seeds found in the woods and meadows. What did the presence of nuts indicate? That the site was a good place to hunt for turkeys, bears, deer, squirrels and other seed-eating animals. A stop is made at a tiny tributary crossing to gather clay and demonstrate the basics of pottery. At midpoint along a hillside, everyone settles down for a discussion of hunting and gathering practices and the roles of Lenape men and women. Why did the Lenape sprinkle tobacco at the base of a tree? The act was a gift to the spirit of the tree for providing the wood for a bow. The Lenape respected all living things and feared if they were not polite and careful to every living thing they caught, cut, shot or picked, the *manito* (spirit) of the things might

make them die or disappear. If no more hickory trees, no more bows!

Every year, the Nature Society's Lenape program is updated. In November 1992, over 150 educators from four states came together at the Ashland Nature Center for a weekend Lenape Conference filled with workshops and lectures by the region's leading authors, anthropologists, archaeologists, and educators. Each came in a personal quest to obtain accurate information



in the interpretation of a fascinating time in history.

During the conference, C.A. Weslager, author of *The Delaware Indians* and 22 other historical books, noted that Lenape has been translated as "common" or "ordinary people." Archaeology professor Jay F. Custer from the University of Delaware pointed out that there is little archaeological evidence for any significant use of agricultural food sources prior to European contact in Delaware. The rich natural food sources of the forests and estuaries supported hunting and gathering groups. This region has the greatest diversity of trees (short of tropical rainforests). Coastal plains comprise diverse habitats in mosaic patterns. Amaranth, chenopodium, and wild rice—known as menomin, sustenance for life—were important plants for

the Lenape along with oysters and fish. Nuclear and extended families wandered from site to site, spending the winter along the shore and the summer in the piedmont.

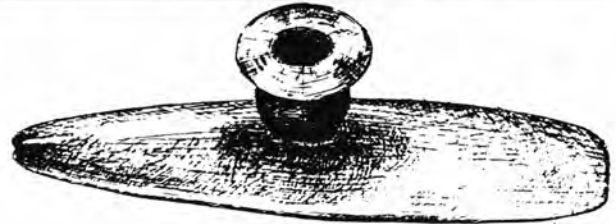


Anthropology professor Dr. Michael Stewart from Temple University reported that many people tend to think of native peoples or "Indians", including Lenape, as possessing a homogeneous, common way of life. Discoveries have demonstrated that differences existed in their ceramic traditions, types of rock used for tool manufacturing, trade and political connections, use of domesticated crops and gardening techniques. Maize, beans, and squash were tropical in origin and the use spread by Native Americans. Evidence from teeth indicate that dental problems increased tremendously when Lenapes in the Philadelphia, Pa., area ate corn extensively.

The Lenape Conference served as an ideal forum for

updating and debating, learning interpretation techniques and expanding resources.

Educators interested in the Lenape culture are welcome to contact the Delaware Nature Society for resources. At the Ashland Nature Center a library and Nature Store features many publications about the Lenape and other Native Americans. One or two hour programs and



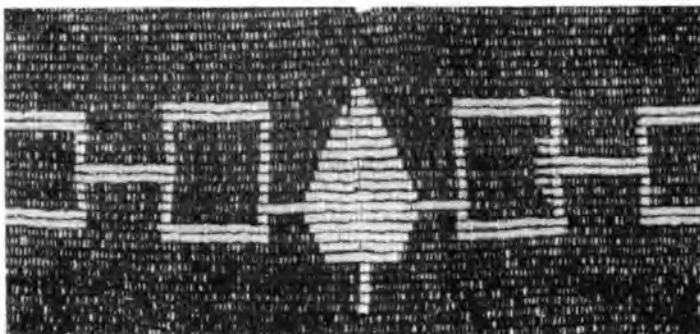
overnight programs for groups focusing entirely on the Lenape are available. Programs are available also at the Nature Society's Abbott's Mill Nature Center. For information, call (302) 239-2334 or write to the Delaware Nature Society, P.O. Box 700, Hockessin, DE 19707.

Founded in 1964, the Delaware Nature Society is a non-profit membership organization that fosters understanding, appreciation, and enjoyment of the natural world through education; preserves ecologically significant areas; and advocates stewardship of natural resources. Two nature centers-Ashland Nature Center near Hockessin and Abbott's Mill Nature Center near Milford—serve as regional hubs for environmental activities in every season.



*Linda J. Young
is a part of the staff of
the Delaware Nature Society*

*Margaretta Bredin Brokaw illustrations
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Delaware Nature Society's book:
**Delaware's Outstanding Natural Areas
And Their Preservation (1978)***



*Wampum Shell Record
of the
Great Law of Peace*

Children and Nature: Strengthening the Bonds

A Guide to Activities and Resources

Joanna Clees

As an environmental education instructor, I look for ways to help children feel closer to the natural world. North American Indian cultures, although varied, have many common lessons to share about living on the earth with care and a sense of connection.

In this article, I would like to discuss two concepts and some corresponding elementary-age activities which reflect the spirit of Native American cultures. Understanding these ideas and acting them out can help children develop stronger bonds with the natural world.

Taking Only What You Need

Almost without exception, Native Peoples have lived according to the axiom of taking from nature only what is needed for life, using each gift/provision - plant, animal or mineral - fully and without waste, and ceremonially returning the unused parts to the earth, thereby completing the circle of receiving what is necessary for life and offering thanks.

Keepers of the Earth by Michael Caduto and Joseph Bruchac contains many wonderful Native American stories and environmental activities for children. One story, "A Journey with the Abenaki," will capture the imagination of your class and set the stage for developing understandings about living in harmony with the earth. Tell the story in a quiet spot outside or seated in a circle, using a few appropriate visual props. Afterwards, discuss ways to carry out the lessons of silence, respect, sharing and circles that are illustrated in the story.

Or have your class study the Plains cultures. No more perfect ecological web has existed than that which connected the peoples of the Northern and Central Great Plains with the great herds of buffalo and the grassed prairies. This harmonious and balanced triad did not exist by accident, but was nur-

tured by the tribes themselves - Sioux, Cheyenne, Blackfeet, Kiowa, Arapaho among others - whose religious respect for the life-giving buffalo and culturally-held belief in taking only what was necessary to sustain life, allowed the buffalo herds to continue to flourish.

The Plains Indians used virtually every part of the buffalo carcass for either food, clothing, shelter, tools, weapons or ornaments.

The following list is adapted from T.E. Mails' Mystic Warriors of the Plains and Bear Butte State Park Museum, Sturgis, South Dakota. Bear Butte is a traditional sacred site to many Plains Indians. Ceremonies continue to be held there.

Whole animal - Existed as a totem or symbolic spiritual presence. Served as a clan symbol.

Buckskin - Moccasin tops, cradles, winter robes, bedding, breechclouts, shirts, leggings, belts, dresses, pipe bags, quivers, tipi covers and dolls.

Rawhide - Containers (including parfleches) for clothing and food, shields, moccasin soles, rattles, drums, splints, cinches, ropes, saddles, knife cases and quirts.

Hair - Headdresses, saddle pad filler, pillows, ropes, halters and ornaments.

Horns - Cups, fire carriers, powderhorns, spoons, ladles, headdresses and toys.

Brains - Used for tanning hides.

Skull - Used in a variety

of ceremonies and prayers.

Stomach and paunch - Liners used as containers for carrying water and for cooking vessels.

Meat - Nearly every part was used for food, either immediately or by converting into jerky or pemmican.

Muscles - Sinew for bows, arrows, cinches and thread.

Bones - Used for a variety of tools and implements, including scrapers, knives, arrowheads, shovels, splints, sled runners, arrow straighteners, saddle



trees, war clubs, awls and toys.

Bladder - Made into sinew and quill pouches and small medicine bags.

Tail - Medicine switches, whips and lodge decorations. Buffalo chips - Fuel, signals, ceremonial uses.

Your students will enjoy designing and constructing parfleches out of heavy paper, about 12" by 18" in size. Rawhide parfleches were beautifully painted storage and carrying cases. According to T.E. Mails, they measured about 3" when folded, were usually made in pairs to hang on either side of a horse while travelling, and were virtually waterproof even in the hardest rain.

Plains Indian artists used plants, earth, clay, berries, ore and rocks as sources for their paints and applied the paint with brushes made of "chewed cottonwood or willow sticks" or "from the porous edge of a buffalo's shoulder blade or the end of his hipbone." (T.E. Mails)

Although Indian artists worked out their designs as they went along, your students may prefer to make a pattern or sketch as a guide. When completed, punch holes in each end flap, fold the parfleche as indicated in the diagram, and tie together with rawhide laces or twine.

Hopi, Pima and Tohono O'odham Indians of Arizona as well as the Pueblo Indian communities along the Rio Grande River in New Mexico have practiced dry farming techniques for generations. Learn about the ancient sowing and harvesting ceremonies that the people believe are integral to the success of the crops. Your students will realize that sustaining Mother Earth as well as survival is at the heart of the annual cycle of prayers, plantings, ceremonies and harvests.

Native Seeds/SEARCH, an organization devoted to researching and sharing information about traditional Southwestern Indian agricultural methods, offers a catalogue with a wide variety of traditional seeds - corn, chilis, beans - some of which are adaptable to other locations. Their newsletter details dry farming experiments and methods and contains articles on a variety of subjects including making cornhusk dolls and ancient uses of gourds. Native American stories from the region are sometimes included.

Projects for your classroom in connection with the study of traditional Southwestern dry farming might be the following:

1) Start a variety of native seeds in the classroom or, depending on time of year and your location, in a school garden plot.

2) Acquire dried corn and have the children try their hands at grinding corn with mano and metate, ancient grinding stones.

3) Compare the general health and ideal family size between sedentary farming cultures and nomadic

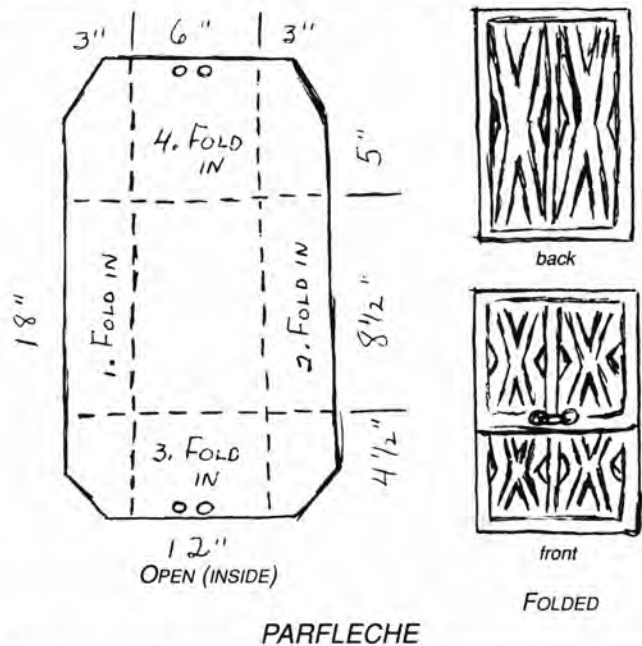
hunting cultures.

4) Write poems about the seasons, planting and harvesting or offering thanks for a successful hunt.

5) List ways that each child can conserve resources and take only what is needed in their daily lives.

Silence and the Senses

An opportunity for silence is important in helping children develop a sense of connection to nature. Children love to explore. I have found that even children who arrive at an outdoor center expecting a robust day of hiking and active games can get into the spirit of silent or whispered exploration as long as the idea is presented with a little mystery, a few simple



tools and some structure.

Take the children, with additional adults, to a quiet spot outdoors. After everyone is seated in a circle, talk together about the five senses. Discussion points can include the necessity for ancient hunters and today's wildlife watchers to sit motionless or move silently in the woods, how animals use their senses to find food, each species' special sensory adaptations, lessons for survival that Native American children have learned by observing animal behavior. Tell them that loud voices and brusque movements interfere with learning about the natural world.

Have the children try using "deer ears," cupping their hands behind their ears to push the ears forward slightly. This enhances the sense of hearing.

Have the children name animals whose eyes, like rabbits, are placed so that their peripheral vision is enhanced, helping them see in two directions at once. Have the children stand very still without moving their heads to test their own peripheral vision and

compare how differently human eyes are arranged from some animals.

Discuss the idea that a wet nose may enhance an animal's sense of smell. Tell the children that the group is going to perform an experiment to decide whether the "wet nose theory" can be proven. Pass mint leaves or crushed pine needles around the circle to smell. Then pass a small vial of water and have each child wet a finger and make a "water moustache" under his/her nose. Now smell the mint or pine. Does a wet nose make a difference?

Include time for silent exploring in special spots. Remind the children of the importance of silence in the story of the Abenakis. Two simple tools will help establish a mood of quiet exploration. Steve Van Matre and Bruce Johnson in *Earthkeepers* introduce the idea of having the group pull down a "veil of silence" as a pledge that no one will break the silence until the group lifts the veil together later on. Nothing works better for setting the tone for silent exploration. Small plastic magnifying lenses, one per child, may also be distributed to help focus concentration and help explore nature's tiny wonders up close.

Now take a silent walk to the places to be explored. Have the children explore their special spot alone; or, if you have a large number of children, have them work as partners. If it's difficult for the partners to work in silence, you might decide ahead of time to allow them to communicate in whispers or sign language as they make their discoveries. Make sure each child or set of partners has their own spot several yards from the rest of the group to insure a sense of privacy and ownership. In order for this activity to be successful, you will need: an interesting and relatively spacious outdoor area, the children's understanding that they will be in one spot silently for 5 to 10 minutes, a somewhat structured location and a sufficient number of adults to assist.

When you're ready, or sense that they are, call the children back to the circle (a bird whistle or bird call works well as a signal), raise the veil of silence together and share the discoveries.

Sensory games are fun for the children as well as for the adults in the group. I don't know the origin of "Hug a Tree," but this blindfold game is popular at many outdoor centers. Children love it.

Have each child find a partner; then you demonstrate with a volunteer how each child will help his blindfolded partner find her own special tree. Lead your blindfolded volunteer in a circuitous but safe route to a tree that you have chosen for her. Let her touch the trunk, feel its girth, the texture of the bark, the shape and smell of the leaves, the tilt of the branches if they're low enough, and any identifiable characteristics that surround the tree on the ground; anything that will help her learn about her tree and be able to identify it later without the blindfold.

After your partner has had a few minutes to get to know her tree, lead her back to the starting point and remove the blindfold. She will get lots of encouraging cries of "you're warm" or "you're cold" from the group as she searches for her tree.

Now that everyone understands what to do, its time to pass out the blindfolds and have the partners take turns being the guide and the guided.

In this activity, a demonstration first is important because it illustrates by example that care must be taken in leading a blindfolded person through the woods. Some safety precautions: Since you will have children going in different directions at the same time, have additional adults to make sure that the guides are leading their partners among the trees safely. Do this activity on flat ground away from steep climbs or drops, and indicate boundaries ahead of time. Finally, make sure that the children understand that the hairy vine (and the leaves attached to it) that grows up the sides of some trees is poison ivy and should not be touched.

This activity works just as well regardless of whether your site is populated with a variety of different kinds of trees or a stand of just one type. Spend a few minutes afterwards processing the activity by asking the children to recount their experiences as the guide and the one being guided.

"Hug a Tree" is essentially a game of touch, but "Bat and Moth" focuses on listening. It can be played indoors as well as outside. You will start with the children standing in a circle. Two participants - one bat and one moth - are blindfolded in the center of the circle. This game is based on the idea of bats catching moths using echolocation. Each participant holds a small rattle or noisemaker - film canisters with pebbles inside work well. The blindfolded bat must try to catch the blindfolded moth by shaking her rattle and getting a rattling sound in response each time from the moth. At the same time that the bat is trying to locate the moth from his rattling response and catch him, the moth is trying to keep track of the bat from the rattling sound that she sends out and stay clear of her.

The circle of children, with hands linked or arms outstretched, have the important job of keeping the participants inside the circle and safe from walking into trees or other objects. It's also important that everyone is as quiet as possible so that the bat and the moth can hear each other's rattles. Running by the blindfolded participants should not be permitted - bumped heads are usually the result. Once the moth has been caught (and he usually is), have the two participants choose another bat and moth until everyone in the circle has had a turn.

The children will be interested to know that a similar game has been played over the years by Pueblo Indian children and conjecture is that it may have

been derived from the ancient Anasazi. Today, we call our game "Bat and Moth." It would be interesting to know how Pueblo children have viewed their game.

Crow Canyon Archaeological Center, Cortez CO, where Pueblo children's games are played with visiting elementary school classes, researches and studies the prehistoric cultures of the Four Corners area. The Center offers educational programs for children and adults on archaeology, ecology and Southwestern pre-history.

The concepts - taking only what you need and valuing silence while using one's senses to the fullest - that are discussed here are only two of the guiding principles of many Native American societies. They were and are important to indigenous peoples not only because they were essential to survival, but also because they contribute immeasurably to the sheer joy of living. Children of today, exposed to excessive consumption and sensory overload, can have their lives enriched by participating in experiences that carry out these concepts.

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Teachers' workshops, school programs and cultural explorations that focus on the prehistoric inhabitants and cultures of the Southwest



Joanna Clees is an environmental educator who has taught children in Pennsylvania, New Mexico and The Black Hills of South Dakota. She lives in Lycoming Co., PA.

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Life in the Sharakakpok Village

A Native Peoples Study for 8 - 9 year olds - 5 month curriculum

Doris Finkel

This study is a multi-subject unit including social studies, science, the arts and literature.

The curriculum focuses on Manhattan (where the school is located) and the New York Eastern Woodlands area.

At Manhattan Country School this is the first experience the children have in studying another culture.

1. WE START BY STUDYING THE ENVIRONMENT - the kind of land, climate, plants and animals

that were here before the Europeans came. A research trip to Inwood Hill Park on the northern end of Manhattan Island (the only area whose vegetation is as it was when Native Peoples lived there). This provides the opportunity to study the topography and the plants and how they were used by Native Peoples. The students collect leaf

specimens and record information, names, and uses in their science journals.

The students also study the types of animals that lived in the area. They draw 3 animals, classify them and record information about their habitat, reproductive methods and diet. They look at relationships between the animals and the environment and with each other. A large environmental mural of Manhattan is created. The children make maps of Manhattan and "share views" of the Sharakakpok village and cove. They write stories about how and why people came to settle here. A model of the cove environment is made.

2. THE PEOPLE OF THIS AREA ARE STUDIED

A. First we discuss Native Peoples today and some of their issues and concerns. We look at children's books and discuss what makes a good book about Native Peoples - what is stereotypical or prejudiced. The children make illustrations of one specific problem. We visit the Museum of the American Indian and interview artists from their Native Arts program. Native People are invited to the classroom. We compare what it was like to live in the New York City area today as compared to 500 years ago or before Europeans came. We talk about culture, what it is and what it includes - - and develop a definition.

We exchange letters with Native American children.



B. We then research what people were like who lived in this area before Europeans came. We discuss the things we would like to find out about them, for example:

What their shelters were like?

How they hunted?

What the men's responsibilities were?

What the women's responsibilities were?

What holidays and celebrations they had?

What did they eat?

What games did the children play?

What tools and weapons did they use?

C. Then we divide into small research committees and study one specific question. The children use various sources to get facts and then collate their information for a written report.

D. The children are divided into groups of 3 - 4 children and become tribes in a hands-on-creative project where they internalize the facts and information that they have researched.

3. MAPPING

Each group must create a map on 16" x 24" white paper of their tribe showing where these things are located: shelters, garden, their hunting area, water source, sacred place, learning place, chief's house, sacred object, forbidden place, place of safety and lookout.

Through discussion which requires listening to suggestions and ideas and compromises, each group creates the legends and traditions of their tribe:

- A. Each person writes 3 or 4 legends:
 1. How the place got to be sacred.
 2. How the place got to be forbidden.
 3. How the tribe chose special animals.
 4. How and why an object is important.
- B. Each group acts out one of their legends.
- C. Each group makes a game of skill.

4. HARVEST FESTIVAL

A three sisters harvest festival is held during December. The children cook the foods they have studied as authentically as possible. Authentic tools are used - i.e. shells for spoons — rocks to crack nuts — corn husk strainers and containers for bread — wooden dishes etc.

The festival includes sharing of original prayers of harvest and thanksgiving. Eating the feast, hearing legends from "the elders", sharing their Native Peoples' names and stories. The children wear everything they have made: pouches, shirts, moccasins and headbands.

5. Throughout the study, literature is used to expand and illuminate the students' work. Myths and legends are used. Stories like Sound Of The Bear, Two Worlds, Sing Down The Moon, illustrate the multi-cultural conflicts.

Throughout the rest of the year the students use their knowledge of Native Peoples, their culture and traditions and most importantly their respect for the land and the belief that people are a harmonious part of the natural world as a basis of comparing and contrasting the other groups and cultures that came to this land.

6. SCIENCE CLASS PROJECTS

In science classes we study the plants grown for food, learning about corn, beans and squash, their growth and structure. We look at the relationships; both of the agricultural process and the nutritional ones.

When a summer squash left on the science table molds we look into food preservation. Every child dries one or more native plants: squash, string beans and sometimes sweet corn, and/or berries. We weigh the foods before and after drying and determine the water loss. We ask why does removing the water preserve the food? What attacks the food? When is this bad? Is it ever good? We have studied producers and consumers, now we look at the decomposers.

We look at the adaptations and biology of a fish before we plank it for the feast. (Many children's fish experiences are limited to classroom goldfish and fish fillets).

At the end of the study we move on to water. We learn properties and uses that are the same as they were in the 17th century. We look at quantity, quality and needs and see a tremendous difference. What things involving water can't they do that Little Bear could? What are our responsibilities? What things can we do to help solve the problem?



Doris Finkel is the third grade teacher at Manhattan Country School, a school dedicated to pluralism (economic, cultural, racial and gender related) with a sister school, Tipitapa, in Nicaragua.

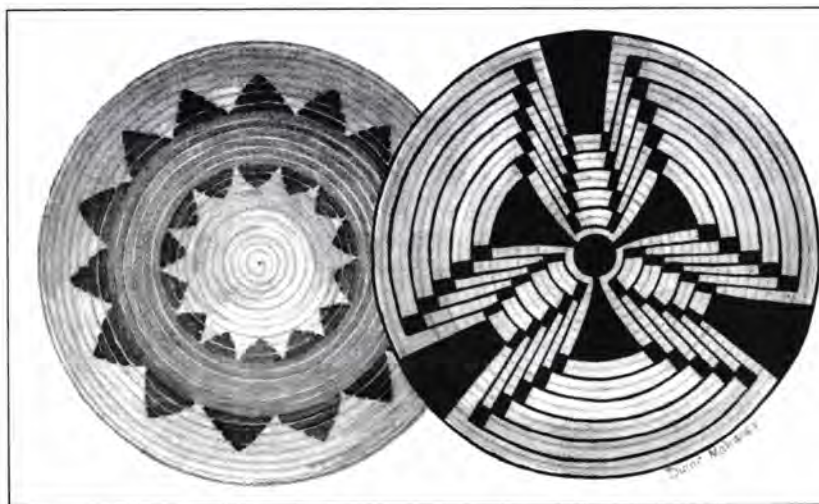
Coiled Meal Baskets

These baskets are made by coiling each layer around a central foundation in a spiral until the desired shape and height is reached..

On the left is a Navaho basket. As with many Native Americans, their crafts are so finely developed that they can be considered true Art.

The Pima basket on the right is characteristic of their highly geometric designs, symbolic of a "water source" in the center and radiating lines representing "streams".

Illustration by Diane Mahaney



Keepers of the Dawn Land

Teaching the Traditional Abenaki Life of Ecological Balance

Michael J. Caduto

Everyone has eaten and is resting in the smoky air of the wigwam. Eyelids grow heavy.

Smoke from the fire collects near the roof before drifting through a hole into the chill air. Outside, frost crystals form on a red and orange carpet of leaves. It is the time of Penibagos Kisos, the "Leaf Falling Moon." The storytelling season has begun.

The wind penetrates the wigwam's bark near a sleeping child. Shivering, the child rises and walks over to an old man curled up on some deer skins. Sensing her presence, he looks up.

"Grandfather," she says, "Why do we have the wind? What makes it blow? It feels so cold!"

The old man sits up. He takes the child's hand and gently answers: "Let me tell you why we have the wind and why it is a good thing. Listen now to how Gluskabi learns these lessons."

And so the story of Gluskabi, a central character in Abenaki tales, begins. Others listen. Occasionally during the story the old man shouts "Hol" to which the people answer "Hey!" signaling that they are awake and listening.

By the glow of countless fires, the images that have danced in the imaginations

of Abenaki storytellers have been passed on. They are stories that grew from the land and the native people who have inhabited Vermont, New Hampshire and the neighboring regions for thousands of years. Even today, these ancient myths and tales are an essential part of a traditional Abenaki upbringing.

The tales are traditionally told between the first and last frosts. Summer is not a time for sitting

around listening to stories; it is the season for planting and tending crops, fishing, hunting and completing other chores essential to preparing for the next winter. Stories were and are sources of wisdom, inspiration and strength during the long, cold winter nights.

In my northeastern storytelling programs the stories often serve to introduce people to the Native American presence in New England, and perhaps in their own neighborhoods. For more than 10,000 years Western Abenakis have lived in what we now call

Vermont and New Hampshire. They are the "People of the Dawn" because their land begins at the eastern edge of North America, where the sun's morning rays first strike. The Abenakis refer to their home as Ndakinna, "Our Land," which includes the north-central fringe of Massachusetts, western Maine, Vermont, New Hampshire and neighboring regions of Quebec. Today there are over 20,000 people with Abenaki ancestry living in Vermont. This population includes more than 2,000 registered members of the Abenaki Nation of Vermont living mostly in the north-western part of the state. The Abenaki tribal offices are located in the town of Swanton. Over 15,000 people of Native



photo by: Dan Hunting

Master storyteller Michael Caduto shares a Native American tale with children

American ancestry currently live in New Hampshire. The closely related Eastern Abenaki peoples, including the Penobscot, Passamaquoddy, Micmac and Maliseet, live farther to the east.

Abenaki tales often teach children the lessons needed to maintain a balance between people and nature. In the Abenaki story about Gluskabi and the Game Animals, Gluskabi captures all of the animals

in a magical game bag. Later, he learns from Grandmother Woodchuck that the animals will all die if left in the game bag. Gluskabi learns that hunting helps to keep him fit and allows the stronger, wiser animals to survive. So he frees the animals and restores the natural balance. All of these lessons support the contemporary tenets of wise wildlife stewardship.

This connection with animals on the physical and spiritual levels begins at the moment of birth among the Abenakis, as it does with other Native North Americans. Children are born into a clan such as the Bear Clan or Turtle Clan. A child's clan animal is important in determining his or her personality. It is said that those among the Turtle Clan tend to think things through carefully, considering the options before taking action. Members of the Bear Clan are strong and tend to act quickly and decisively. Many healers are born into the Bear Clan.

Traditional Abenaki education and upbringing consists of learning by doing. In modern educational jargon this would be called experiential and wholistic. A child learns how to make a birchbark canoe, for instance, by helping and showing interest.

But the child learns much more. He or she becomes acquainted with the seasonal rhythms and ecology of the plants used to fashion the canoe, as well as the other uses of those plants and the stories associated with them. The child learns the spiritual practices for respectfully gathering from wild plants — how to ask permission, give thanks and show respect. The artistic techniques used to decorate the canoe, and the meanings of those designs are mastered. The child then learns how to prepare for launching the craft, and, finally, is taught the Abenaki canoeing song:

Ki yo wah jee neh
Yo hey ho hey
Ki yo wah jee neh
Ki yo wah jee neh

The lessons of life are not always easily mastered, however, and children do make mistakes. When Abenaki children misbehave, traditional discipline involves an admonition and/or the telling of a story in which the story character would misbehave in a similar way, with disaster ensuing. Physical punishment is not used. It is believed that by being hit, a child remembers the beating and forgets the lesson it is meant to reinforce, and that one breaks the spirit of a child with physical abuse. Instead, a badly misbehaved child is taught by being caused to confront the quiet in his or her self. This is done by gently keeping

the child on the outside of social and family activities for a while until the lesson is learned. Discipline is used not as a coercive force but to lead the child back into balance with his or her own center and that of family and community life.

To live in balance with nature is another important lesson taught to Abenaki children. "Balance," to Native North Americans, does not necessarily mean to leave nature undisturbed. It means to treat nature with respect and to do what is appropriate to sustain the well-being of plants, animals (including people) and the non-living parts of Earth. Even killing an animal can be done in a respectful way, but only from a survival need, not for sport.

Throughout their lives, traditional Abenakis treat nature with great respect. The individual has a relationship with the spirits of the natural world. Prayers are offered to the Owner or Creator Tabaldak in order to show respect and thanksgiving for the lives of plants and animals killed so that people might live. When wild herbs are picked many are left growing, especially the largest "Grandmother" plant of that patch, and seeds are sprinkled in the fresh earth left behind by uprooted plants.

In my program "Nature in Native American Myths," I use story, song, dance and guided imagery to convey a picture of Abenaki environmental ethics. Everyone lies on her or his back, eyes closed, and imagines the following journey that accurately depicts the nature of traditional Abenaki existence and shares some important lessons that are commonly found in Native North American cosmology. A drumbeat accents the action in this fantasy journey.

Read "A Journey with the Abenakis." When you are done, have the children sit up and repeat the four lessons: silence, respect, sharing and circles. Write these lessons where everyone can see them. Now have each child string four wooden beads onto a piece of cord that is about 29 inches (74 centimeters) long. (Use a waxed cord, or glue the end of each string so it does not fray.) Each bead represents one lesson. When all four beads are strung, have each child tie the ends of his or her string together to make a necklace.

A Journey with the Abenakis

Our journey begins in the pine woods. As we walk, the wind sighs through the pine boughs and causes them to wave. Little patches of sunlight shine on the soft pine needles beneath our feet. A twig cracks underfoot. There is a clearing in the distance and gentle curls of smoke rise into the sky. We can smell wood burning as we approach.

In the clearing are some dome-shaped shelters with arched roofs made of bark wrapped over poles. There are holes in the roofs for chimneys and smoke

pours out of them. Many lodges are arranged in a big circle that is surrounded by a high log fence. We walk over to one house and feel the lines in the bark on its side. There is a pair of snowshoes leaning on the house.

We turn and walk to a great fire ring in the center of the camp, where a group of men and women are warming themselves by the blazing fire. The women wear their hair long, as do the men. Women are wearing leather skirts and leggings with moccasins attached. A blanket covers each woman's head and flows down over a leather coat. Men wear leggings and a small, skirt-shaped piece of leather. But on each man's head is a hood-like cap with two feathers sticking out of the tip. A bow and arrows are carried by the hunters, along with spears and knives that are laced to their belts.

These people prepare to go on a hunt by burning tobacco, a sacred plant whose smoke carries their prayers up to the "Owner" or Creator, Tabaldak, and the animal spirits. These prayers ask for permission to hunt. They also express the people's respect and appreciation for the lives of the animals they will soon hunt, and offer thanksgiving for the food, clothing and other gifts the animals will give the people. Soon the hunters leave the fire ring, carrying their weapons, and walk through the pine grove.

Some faint deer signs are found and two of the hunters begin to follow the trail very quietly. After a long, slow, tiring search, some animals are heard chewing on the buds of small trees up ahead. The hunters creep closer and look through the branches of a low bush. The animals are deer! And so we learn one of the lessons of survival in nature: SILENCE.

The hunters look carefully at the deer in the herd, recognizing each one individually. Two of the deer are pregnant does who the hunters know are expecting fawns—these two will not be hunted. Finally, the hunters decide on a certain buck as their quarry.

In an instant several arrows are strung and sent whistling through the air. The buck is shot and it falls kicking on the ground, blood flowing from wounds in its side. One deer alone is taken because the others are needed to produce more young to keep the herd alive and because the hunters take only what they need. A second lesson of survival in nature is learned: RESPECT—respect for other life besides people's.

The hunters quickly skin the deer, cut up the meat

and lash the pieces onto a pole that is carried between them on their shoulders. When they arrive in camp people are excited to see them with their catch. "A successful hunt," a child cries out. "We will have food to eat!"

The deer is not kept by the hunters and their families; it is cut into smaller pieces and given to all those who need food beginning with those who are the most hungry. Another lesson is learned of how people can survive in the natural world and with one another: SHARING—sharing the gifts of nature.

As the meat is prepared, the people burn some fat on the glowing coals of the cooking fire. The smoke that drifts upward is an offering to Tabaldak. Every part of the deer is used, because to waste any would show disrespect for Tabaldak and the animal spirits and make them angry. Finally, the deer's bones are returned to the land where the animal was killed. This offering of the bones completes the circle of giving and receiving—the Creator and deer giving life through the gifts of food and clothing to the people, and the people completing the circle by giving the deer bones back to show respect, appreciation and thanks. A final lesson is learned for living well with the natural world: CIRCLES.

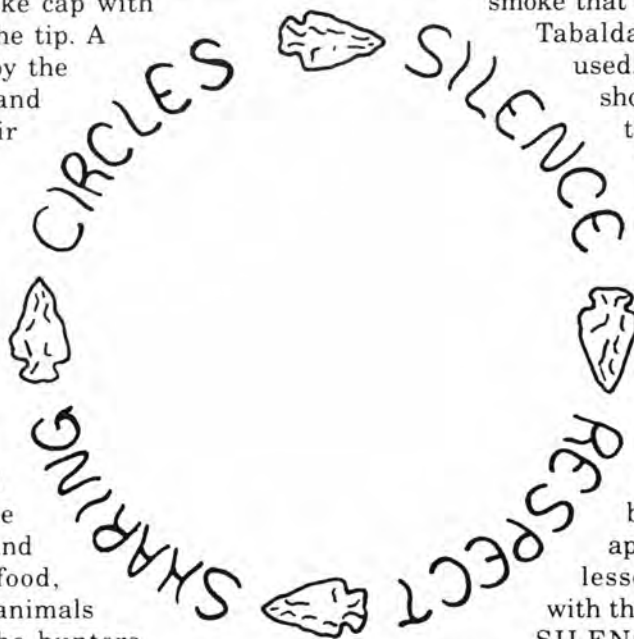
SILENCE-RESPECT-SHARING-CIRCLES—these are lessons to be remembered each day. If we live by them we will be able to live in peace with other people and in balance with the Earth and all living things.

It is a matter of balance, of faith, and, to Native North Americans, of a spiritual relationship with all of creation. Native North Americans believe that when we fail to be respectful, to prepare and to give thanks in a ceremonial way when we take from Earth, or when we harm Earth with our greed or pollution, we are on bad terms with the spirits and their manifestations in this world.

Although rooted in antiquity, these lessons are directly relevant to contemporary environmental and social problems. The symptoms of our present life out of balance can be found in the plethora of environmental problems that we now confront: ocean pollution, over-fishing, acid rain, depletion of the ozone layer, the greenhouse effect, overpopulation, destruction of the Amazonian rainforest and issues of peace and justice the world over.

It is up to each of us to establish this balance in

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Environmental Education Tips

More than a Story

Fran Ludwig

"But scientists say that the Earth was formed from swirling dust," protested a precocious second grader, "so that Indian story couldn't be true." I had just finished telling the creation story common to Northeast native peoples, that of Turtle Island. In it, little muskrat, the meekest of the animals in the tale, dives until he thinks his lungs will burst in order to find some soil to place on turtle's back. After several tries, he finally succeeds where the other animals failed, and surfaces with a bit of soil in his sharp claws. The soil magically grows until it becomes land as we know it.

For a long time I was dissatisfied with my ability to lead these concrete thinkers beyond the literal interpretation of the story (though I did point out that some traditional Native people still prefer to believe in it word for word). Recently, I discovered an analogy that has unlocked a new level of understanding for my young audiences. Before telling the ancient stories, I review a modern fairy tale with the children. "Tell me what Cinderella was like. How about her step sisters? What happened to Cinderella in the end?" Even little kids can tell you that Cinderella was kind to people even if they were mean to her, and in the end, she marries the prince and lives happily ever after. "So," I point out, "if you're kind even when it's difficult, good things will happen to you. That's kind of a 'story within a story'." I challenge the children to come up with a "story within a story" for the Turtle Island tale. They have no trouble saying that even the smallest creatures can do big things if they keep trying.

Most boys and girls jump to identify with the muskrat. "Some people say that the Earth is in trouble and that kids are so small that they can't do anything about it do you think that is true?" I ask. Eager voices yell, "No!" The youngsters explain that they try to do their part by recycling, not wasting water and turning off the lights, caring about the animals. They agree that if enough people did these things Earth would be healthier.

It should not be surprising that many Native American tales have a moral twist to them. Values were often handed down in long winter nights when the storyteller held youngsters spellbound in a warm tepee or longhouse. I have been delighted that these ancient stories have lost none of their power.

The Gluscabi stories by Joseph Bruchac are a rich source of environmental messages. In Gluscabi and the Game Bag, the boy giant of Algonquin fame stuffs all the animals in the world into his bottomless game bag. Content that he will never have to go out hunting again, Gluscabi proudly hauls his booty to Grandmother Woodchuck's house. Old grandmother wise to his mischievous ways, explains to Gluscabi

that the animals will sicken and die and that he and his children would have nothing to eat if the animals stay in the bag. Today's youth quickly relate this tale to the elephants, rhinos and pandas that are being hunted to extinction.

The Wind Eagle is also a powerful story. The wind annoys Gluscabi because it makes it harder for him to paddle while duck hunting. Ever impulsive, he decides to make the wind stop blowing. Grandmother Woodchuck, with some trepidation, explains to her grandson that the wind only blows when the Wind Eagle flaps his wings. Gluscabi eventually tricks the Wind Eagle, ties his wings and returns to duck hunting only to find that the ducks are gone and mosquitoes fierce. He learns the hard way that the wind helps to keep the water clean and bugs away. After hearing the tale of the Wind Eagle, children are ripe for considering the difficulties humans have caused by trying to change nature.

A poignant post-Wind Eagle discussion began by considering our need for air conditioning. Hundreds of years ago in New England, Native peoples often changed their summer location to take advantage of cooler temperatures near the shore. Today, we change our environment quite literally by using electricity to operate air conditioners when it gets hot. In the Northeast, some of the power to operate air conditioners comes from HydroQuebec. Waters dammed to produce electricity for cities has destroyed Cree hunting grounds and villages in a 4000 square mile area and released poisonous mercury into the food chain. More dams are planned. All of this results from the short sighted human tendency to think like Gluscabi.

Young listeners, on comparing the Gluscabi's trick on the Wind Eagle to HydroQuebec's plan to dam Cree territory, sprang into action. They made resolutions to reduce their use of electricity so that additional power would not be needed. They also wrote letters to their political representatives to express their concern for the environment that we all share. Truly, the children understood the Native view of legends--that the words are more than just words--they make things happen.

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Fran Ludwig is K through 5 Science consultant for the Lexington, Massachusetts schools and has written a course of study called Walk in My Moccasins.

The Storyteller



The representation of the storyteller in clay or paint is common in many Native American cultures. Most commonly the figure surrounded by children is a woman. In this version the artist has chosen a bear to tell the story and has surrounded it with figures, from the past, present and future.

Thus we find her holding two figures in her arms, Sequoyia (circa 1770 to 1843), the inventor of the Cherokee alphabet and author of many books and the contemporary Goingback Chiltoskey (see Contemporary First Nations People). In her lap a little girl, a modern child, the hope of the future, is flanked by Stalking Turkey, a 19th century chief and John Ross (1790 - 1866), the Scot who was married to a Cherokee, who because of his non-Indian status, was able to use money donated by many people (as a protest to the removal of the Cherokees) to buy land in North Carolina, when Congress passed a law barring Indians from purchasing land. This land would form the basis for the present North Carolina Reservation. Next to the bear her two cubs are important parts of the future.



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Teaching About American Indians

continued from page 4

nity to do more than perpetuate the stereotype that American Indians were closely involved with the environment, the teacher has failed students and Native peoples alike. Such an approach overlooks the contributions of American Indian societies beyond basic ecology. The Native study of the natural world has been extended to the study of humans also. The Indian view that interdependence and cooperation, more than competition, are the real survival techniques applies to the social order. It is from observing how the world works, of what the Iroquois call the Natural Law, that American Indian societies developed their basically democratic forms. The New England town meeting was developed from the model of Indian councils. Many of the provisions of the Constitution came from the the Iroquois Great Law of Peace. A well-known Seventh Generation principle for Indian decisionmaking contrasts our society's approach to social issues (the quick fix) and to the environment (the quick buck—fix later) with the Indian dedication to the survival and well-being of future generations of people, plants, and animals. These great teachings from Native America form a complementary whole which should not be overlooked by the teacher of nature study.

So what do we owe Native America for these teachings? Felix Cohen of the Franklin Roosevelt administration, an advocate for American Indians, once pointed out that Indians are the "miner's canary" for all of us. What happens to them may happen to us. Dumping toxic waste on Indian lands may pollute aquifers that everyone uses. The "legal" denial of religious freedom to Indians when a government interest is present applies to the religious freedom of all Americans. The exploitation of resources on Indian lands by government corporate collusion weakens every individual's political power. Do twenty-nine-cent-per-pound bananas, harvested thousands of miles away by primarily Indian and other minority people, suggest a third-world exploitation of labor that will haunt us morally and politically? "Is your wealth," as Chippewa activist Winona LaDuke asks, "the result of someone else's poverty?" Are we all connected in ways none can deny?

Must not our teaching about the natural world include the concept of our being gardeners and keepers of all the planet's life forms? The Native symbolic concept of concentric rings, of that energy connection present everywhere, the cause-effect rippling outward (and inward) of every act, is the great lesson American Indians would have us teach. We owe it to them, ourselves, and our students to do so.

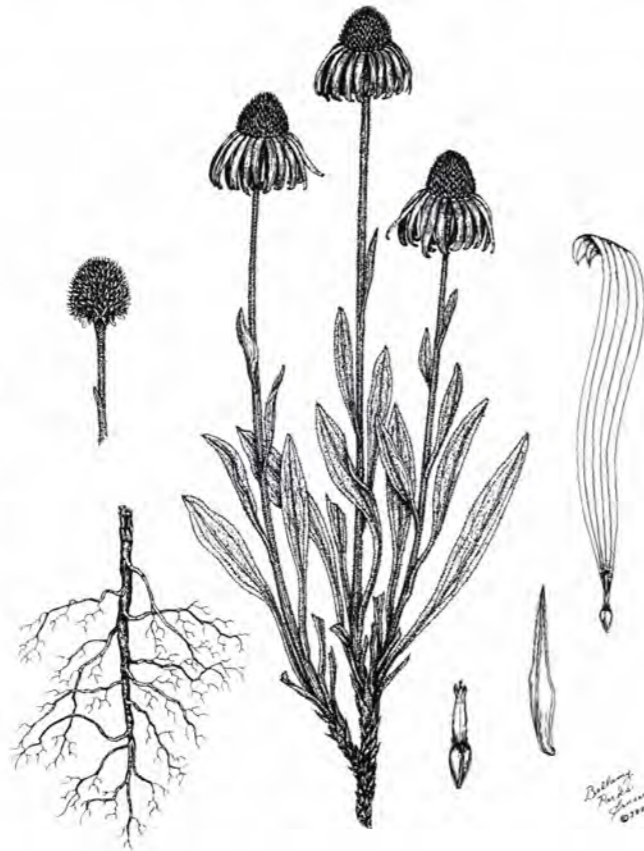


Ned Coates is Assoc. Professor of English at Pennsylvania College of Technology at Williamsport, who has spent his lifetime learning about and from Native Americans.

Plants important to Native Americans of the Southwest United States

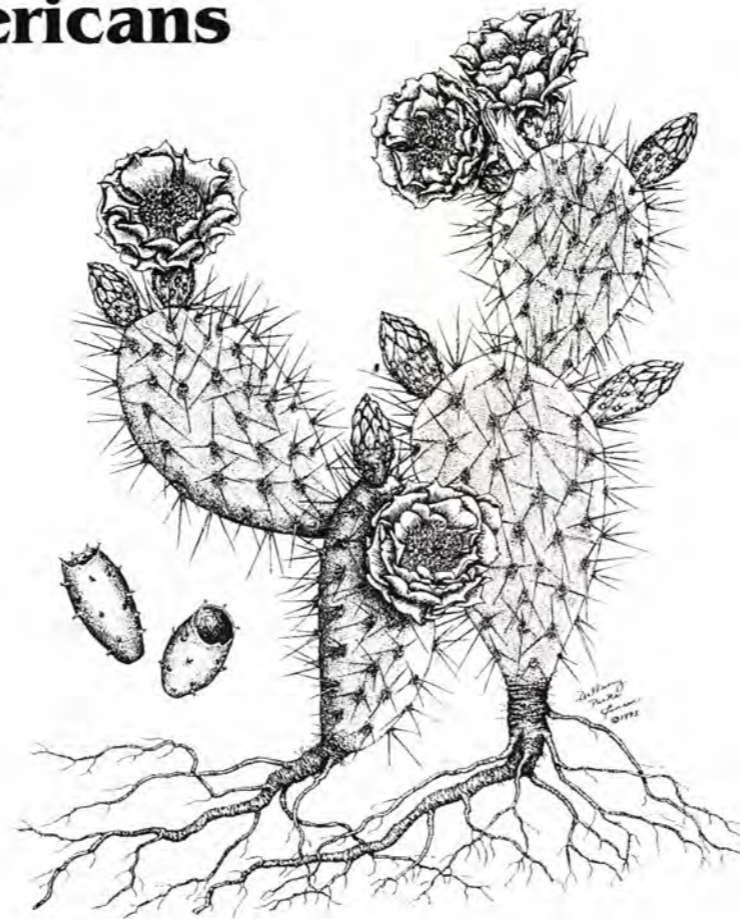
Echinacea angustifolia. Purple Coneflower

The roots and leaves were used by Native Americans as an antidote for snakebites and poisonous conditions. The root and juice from the leaves and roots were applied as a topical toothache remedy, for enlarged glands, colic, bowel pain, stomachaches and sore throats. Coneflower is currently used to stimulate the immune response system against colds and the flu.



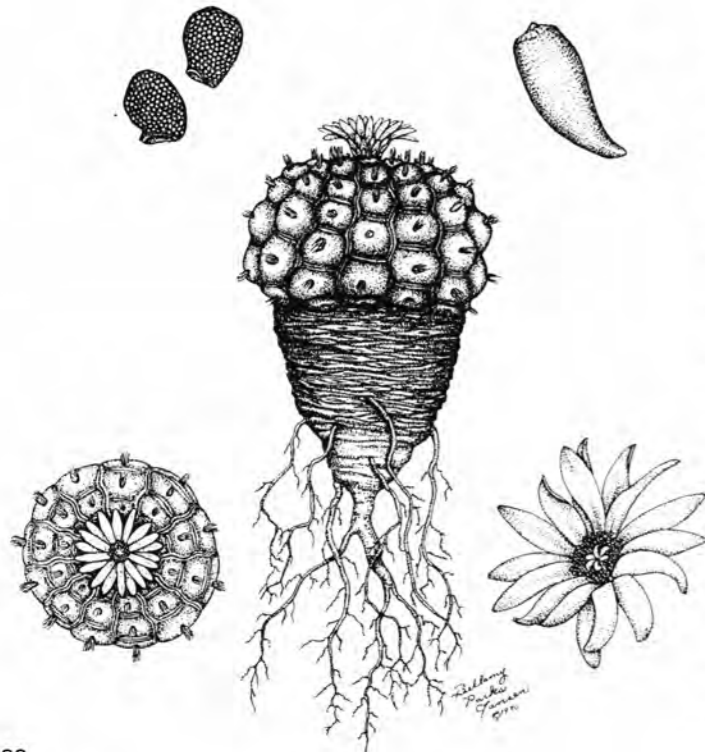
Opuntia polyacantha. Prickly Pear

Various Native American Tribes collected the fruits to eat raw after the bristles had been removed. They were also split with the seeds removed to be dried for winter storage and stewed with meat for thickening. The pads were split and peeled to be applied to wounds as a bandage to aid in healing. They were also boiled to remove the spines and obtain the soft interior to be fried. The flower buds were despined, roasted and dried to be cooked in stews.



Lophophora williamsii, Peyote

Many Native Americans attribute wonderful mystic powers to peyote. The basis for the doctrine and belief connected with the Native American Church is a blending of older religious beliefs with many Christian ideas absorbed from Christian missionaries. The use of peyote for religious exercises is surrounded by detailed symbolism and ceremony. The plant is a powerful hallucinogen with its major physiological effect stimulating the optic centers of the brain. Native Americans associated with this religion believe that deity dwells in peyote. The powered plant top (button) is consumed to internalize the divine spirit, to induce good, and to exorcise evil. The practice is analogous to the Christian use of bread and wine for communion.

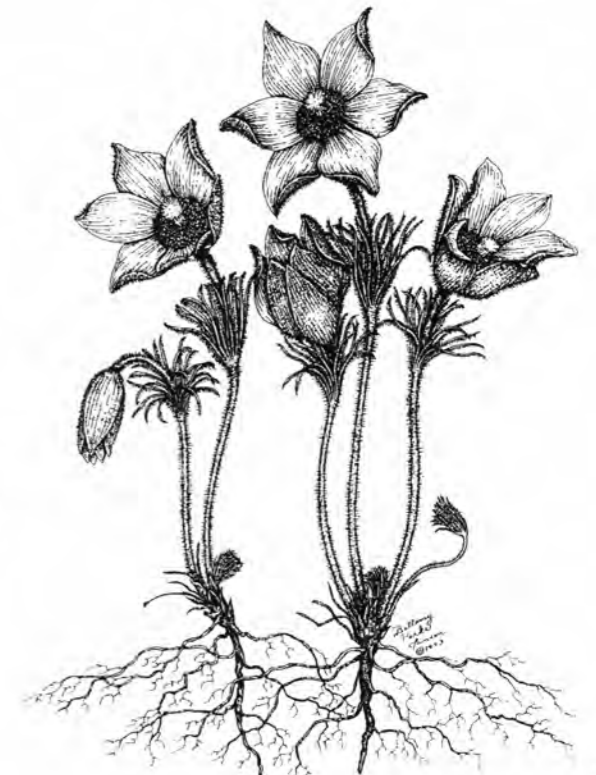


Yucca glauca. Soapweed, Yucca

Many parts of the soapweed were utilized by Native Americans. The roots were used as a soap for washing hair. The leaf blades were bundled together and used as a drill for starting fires or they were macerated until the fibers were cleared with the point still attached and used as a needle and tread. The immature flower stalks were collected as they emerged to be boiled and eaten. The flower petals were eaten raw in salads.

Anemone patens. Pasque Flower

Many Native American Tribes used the leaves for cases of rheumatism and similar diseases. The fresh leaves were crushed and applied to the surface of the skin over the affected area. The plant acted as a counter-irritant and was said to cause a blister if left on the skin too long. Pasque flower is harmful if taken internally.



Bellamy Parks Jansen is a talented artist who has a degree in botany. These pictures come from a copyrighted post card series of prairie plants which she has generously permitted us to use. She is a scientific illustrator who prefers drawing plants but has done other topics for magazine articles & books.

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NABS Program

(Native Americans in Biological Sciences)

An Executive Summary

Oklahoma State University at Stillwater

The NABS program is designed to impact the large population of Native Americans which resides within the state of Oklahoma and to serve as a model for the effective recruitment of students into the biological sciences. It is based on the use of role models, early exposure of secondary students to the university, and frequent participation by all students in experiential activities. The University is requesting **\$1,992,480** to implement a program of enrichment and outreach in the secondary schools, and the development of a "research track" biology curriculum at the university. Inherent to program design is a degree of flexibility which will accommodate the different needs of participating schools and sensitivity to the cultural milieu of the target students, while still maintaining strong college preparatory programs and university biology curricula.

The outreach portion of this proposal was developed with three school districts which are 10%-52% Native American. Specifics of the program will be approved or modified by an advisory board composed of persons from the secondary schools, tribes, Title V Indian Education programs, and the university. A high school teacher will be chosen to coordinate the program in each school system. These individuals will be Native American, where possible. A Native American liaison officer will correlate the efforts of the director, advisory board, program coordinators, minority counseling services, and the university summer programs.

Summer enrichment programs will be provided by the school system for elementary grades and will be general in nature. OSU will develop summer-session programs in biological sciences, bringing Jr. High and High School students to OSU for 3-4 week field and laboratory experiences. During the school year, the program coordinators will form science study-groups to foster participation in extracurricular activities and prepare students for the on-campus summer programs. Students participating will serve as docents to lower grades to reinforce a sense of achievement in the docent and provide a role model for the younger student. OSU will provide supplies and equipment to the public schools through a "footlocker program" and Biology Enrichment, Advanced Placement (AP) Chemistry, Physics, and Mathematics via satellite.

OSU will develop a "research track" within the existing university biology curriculum. Freshman students will prepare to participate in research laboratories

by taking two intensive 4-6 week laboratories. The first will expose the student to a range of research activities, and information related to potential careers. The second will focus on basic laboratory techniques which will be required in the research laboratories they will enter as sophomores. Students accepted into the research track will participate in a seminar program and an annual symposium to report on the results of their research efforts. As seniors, students will also act as mentors to entering freshmen and the NABS summer outreach programs.

The program is not exclusive. Native Americans will be specifically targeted in the primary and secondary school systems by working within existing



Summer Camp 1993 - Nikki Harrison and Carlee Walkingbull

Title V programs, using tribal facilities to hold summer camps, fostering tribal and family support for student participation, etc. At the university, NABS will provide stipends and research monies for Native American students. Native Americans participating in the "research track" will be mainstreamed with students in the existing Honors and Freshman Research Scholars Programs.

Municipal Wastewater Effluent in Cottonwood Creek: Environmental Effects, Treatment Alternatives, Economics and Regulations

The summer program of the Native Americans in Biological Sciences Program was titled "Exploring Contemporary Biological Dilemmas." This program

was a four week residential academy at Oklahoma State University for Native American students having completed the 8th and 9th grades.

The academy was based on a problem solving, discovery approach. The focus of the camp was a real life problem. All of the students were engaged in studying the problem and searching for solutions, but were divided into small groups each approaching the problem from different areas of concern.

The problem chosen for study concerned the waste water treatment plant for the city of Cushing, Oklahoma. Less than ten years ago the city constructed its plant with financial assistance from the federal government to meet the requirements of the state of Oklahoma for release of treated water into a nearby stream, Cottonwood Creek. Shortly thereafter, the state conducted a routine survey of the creek and upgraded its status from an unclassified body to a warm water fishery and recreational primary body contact area. Cushing's treatment plant was not capable of cleaning the water sufficiently to meet the new, higher standards. Estimate of the cost to bring the plant into compliance were in the millions of dollars and federal assistance was no longer available. The city also contended that without the release of effluent from its plant the stream would be reduced to stagnate pools during the summer months.

Our program introduced students to the problem during the first week of the academy. The Cushing City engineer and a representative from the Oklahoma Water Resources Board spoke with the students. The students determined seven areas of study needed to understand and investigate the problem and in groups rotated through exercises in each area. The areas were: Water Quality, Engineering, Microbiology, General Stream Ecology, Ichthyology, Public Policy, and Documentation. At the end of the week students ranked these in order of their interest, and were then divided into groups based on these rankings.

The groups conducted research in their areas interdependently for the remaining three weeks of the program, but all met together formally once each week to report on their progress and seek the advice of other groups.


The staff of the academy included a graduate teaching assistant for each group to provide expertise in the diverse areas under study, three public school teachers for the three schools from which students were drawn, Dr. Alan Harker NABS Program Director and Associate Professor of Microbiology and Molecular Genetics, Dr. Rob Burnap, Assistant Professor of Microbiology and Molecular Genetics, five graduate and undergraduate counselors, NABS Counseling and Outreach manager, and NABS Technical Programs Manager. Instructors were trained in a problem solving approach to be facilitators for the students – allowing them to determine



Summer Camp 1993 - Shelby Palmer and Lyndsey Warrior

their own investigative methods - rather than providing lessons or procedures for the students to follow.

At the end of the fourth week, each group prepared a brief written report of their activities. Presentations were made at a research seminar and banquet on the final night of the academy. Guests at the seminar included parents, school administrators, Tribal administrators, Cushing city engineer, the press and the Oklahoma State University President. Copies of the final report were presented to the city of Cushing and to the Oklahoma Water Resources Board.

The methods employed in the instruction at this academy are far from new or original. They are unique only in that they were actually put into practice rather than being offered as the way things "ought to be done." The problems encountered were what one would expect – high personnel costs because of the need for facilitators expert in many different areas of science, high materials cost because of the need to allow students to explore and difficulty in obtaining supplies at the last minute. Students were not accustomed to having to think for themselves and instructors were not accustomed to allowing or even forcing students to do so. After some initial discomfort, this problem worked itself out to an extent that the University faculty members are teaching inquiry based laboratory sessions this fall and the school teachers are increasing the inquiry or problem solving time in their classrooms. In a survey following the camp 57% said they would prefer to use this approach to lab work rather than being given a prepared procedure, and none of the students said that they would prefer to have a prepared procedure. All of the students (100%) indicated that they would like to return to a NABS sponsored camp next summer. 

Nancy Gettys, Manager of Technical Programs for OSU, provided these executive reports. Student reports were put together in a 47 page booklet.

Food Crops That Pre-Dated The Three Sisters in the Eastern Woodlands

Mary D. Houts

One of the basic things we all learned in elementary school, along with the fact that George Washington was our country's first president, is that three food plants were cultivated by some of the first peoples in North America - corn (maize), beans and squashes. Somewhere along the line as we grew older we may have learned that corn and squashes were domesticated in Meso-America and that the seeds and the knowledge of how to grow them slowly made their way north. These seeds and this knowledge, we were taught, were what freed early tribes at last from a life of total dependence upon hunting and gathering.

However, a fascinating article which appeared recently in *Anthro Notes*, the National Museum of Natural History bulletin for Teachers*, proves us wrong. The author Ruth Selig relates the story of how detective work by scientists, in particular that of Bruce D. Smith, an archaeologist, ** has shown that at least 2200 years before the first use of maize, tribes of the Eastern Woodlands had started to plant and harvest at least seven seed plants indigenous to their region. Four of these plants, chenopod, marshelder, squash and sunflower were domesticated fully (new forms created from wild plants). Three others - erect knotweed, little barley and maygrass - were also being used as food crops. The cultivation of these crops supported the flowering of some of the eastern tribes that occurred between 250 B.C. and 200 A.D. Although maize was introduced from Mexico at the

end of this era (around 200 A.D), it did not become a major food source for Eastern Woodlands tribes until after 800 A.D.

According to Selig, textbooks should now read:

Native North American women and men domesticated local plants, including the wild ancestor of squash and several highly nutritious seed crops, long before any domesticated plants were introduced from MesoAmerica. This revolutionary contribution of Native North Americans makes eastern North America one of the world's four major independent centers of plant domestication along with the Middle East, China, and MesoAmerica"

* Selig, Ruth O. "A Quiet Revolution: Origins of Agriculture in Eastern North America", in *Anthro Notes*, National Museum of Natural History Bulletin for Teachers, Vol 15 No. 2 Spring 1993.

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Mary Houts is Ass't Director / Curator of Education, Hershey Museum, Hershey, PA. The Hershey Museum's Native American collections include 19th and early 20th Century objects made by tribes from the Eastern Woodlands, Southwest, Great Plains, Northwest Coast and Alaska.

The Educating Of Native People *continued from page 14*

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16. Paul Boyer, "Higher Education and Native American Society," *Tribal College*, Summer 1989

Ron Clees is an environmental educator residing in Lycoming Co., PA. He has earned graduate degrees in education from Indiana U. in Bloomington, IN and has been a high school teacher and corporate trainer.

Pots and History

Robert S. Russell

You are telling me that peanuts did not originate in Africa? That zucchini and tomatoes did not originate in Italy or potatoes in Ireland? How about corn, beans, squash and pineapples, papayas, avocados sweet potatoes, sweet peppers, hot peppers and cacao.

The historical records sent to Spain by the Conquistadors and the missionary priests shortly after the fall of Mexico to Cortes in 1519 and the conquest of Peru in 1532 clearly tell of the new foods to be found in the Americas. Of even more significance are the 1000 to 2000 year old pots decorated with fruits and vegetables. In many instances the pottery fruit was an exact duplicate of the actual plant part having been made in a press mold.

In 1988 Archeologists uncovered one of the major finds in the Americas at Sipan on the coastal plain of North Peru. The tomb of a chief dated to approximately 290AD yielded gold and silver jewelry, pots and turquoise. For a complete listing see the **National Geographic**, October 1988. Among the many items in the tomb is a necklace of oversize gold peanuts and also one of actual size in silver.

The Moche flourished from 100AD to 800AD, building temples and irrigating the fields with water from the Andes. Between 800AD and 1000AD a new group of people moved in and revitalized the culture. We call these people and the new culture Chimú. Around 1460AD they were conquered by the Incas. The Chimú assimilation of the Moche seems to have been a peaceful joining of cultures. Both the Moche and Chimú have left a legacy of pottery depicting peanuts, squash, beans, corn, potatoes and many of the tropical fruits that grow in the area.

We are fortunate today to see these fine examples of the potters art because of their strong belief in an afterlife. These two cultures also left us a record of how they looked in portrait heads, half size in clay. They also put in pottery replicas of food from the sea; crayfish, and fish; plus depicting frogs, dogs, parrots, monkeys, and other wildlife that abounded in their area.

On the cover of this journal are three North Coast pots (2 black Chimú, 1 Huari) with a corn decorated

motif and in the front is a single ear of corn that was purchased in the farmers market in Trujillo, Peru.

MAJOR FRUITS AND VEGETABLES FROM NORTH AND SOUTH AMERICA

CORN — Originated in Mexico and had spread to almost all areas where rainfall and length of growing season was adequate.

BEANS — Many local varieties - all beans of genus *Phaseolus* come from North or South America.

SQUASH — Recent research sets development of summer squash in U.S. 2000 plus years ago, and Winter Squash from tropical America, possibly Peru.

POTATOES — The Andes — Peru, Bolivia

SWEET POTATOES — The coast of Peru and Chile



photo by Russell ©

Inga pachai - 2 of these bean pods are from the market, and one is a chimu pottery replica.

PINEAPPLE — The Tropics - It was highly regarded in Peru.

CASSAVA (Tapioca, Manioc, Yucca) — Tropical and subtropical America.

CACAO — First encountered by Columbus sailors in the Caribbean, it also grew in Central and South America.

TOMATO — Peru

PEANUT — Probably first cultivated by the Chimú. Columbus saw them in Haiti. Cortez saw them in Mexico.

PEPPERS — Sweet and Hot growing from Southwest U.S. to tropical and subtropical South America. Christopher Columbus named *Capsicum* "pepper" because it tasted like the Asiatic pepper he had set out to find.

PAPAYA — Native of Caribbean but had reached Peru by at least 1000AD being reproduced in Chimú and Nazca pottery.

AVOCADO — Mexico; it was growing in Peru when Spanish arrived.



Robert S. Russell taught and lectures on Pre-Columbian art.

Environmental Problems on Native American Lands

Lenore Miller

The closing decade of the 20th century has brought with it a new awareness of the many environmental issues facing Native Americans in all the nations of North, Central and South America. Increased vocal opposition to exploitation, media/communications sophistication, and emulation of the successes of other political movements (like civil rights) have enabled these groups to bring their message to the rest of the continent dwellers.

The environmental issues that face the various Native Americans should be viewed before the backdrop of economic deprivation. Likewise, consideration must be given to the historical context, since the native populations were separated from their traditional ways of living. Like the fabric of a tribal blanket, environment, history, economics, and politics are all interwoven into a complex pattern whose threads must be teased apart to find solutions.

For the rest of us, we are well-served by Native American activism and their refusal to allow the issues to pass unnoticed because (to paraphrase Chief Seattle) we are ALL part of the same web. Whatever happens to one part of the web, happens to us all.

What are some of the current environmental issues facing Native Americans that have become "newsworthy" in recent months (or years)?

- Hydro-Electric Power and Dams: the damming of the rivers at James Bay in Quebec has already destroyed a large tract of fishing and hunting grounds. James Bay II Project would have resulted in greater destruction and the relocation of many people to provide plentiful (cheap) electricity for New York and New England. Publicity and pressure by Native Americans and other environmental groups (Sierra Club, among others), have resulted in a postponement and perhaps cancellation of this portion of the project.
- Forest Conservation: Some alternatives to the destructive practices that threaten not only the physical aspects of the rainforests and other forests (globally), but also destroy the way of life and the cultural traditions of the tribal people are:
- Ecotourism: the promotion of tourism as one way to earn money from the natural environment without destroying it. People will come to the forests to experience their beauty. Natives act as guides, provide food and lodging.
- "Good Wood" Timber: selective cutting, promoting use of non-endangered species.
- Non-Timber Forestry: using products other than timber. The forest then becomes more valuable when it's standing up rather than cut into board-feet. Some examples are nuts, fruits.
- Mineral deposits on Native American-held reservation lands: Their extraction, sale and degradation of

surrounding areas are tied in with the Mining Act and its possible eventual (hopefully soon) repeal.

- Waste Disposal Sites: with places to dump toxic and/or hazardous (including nuclear) waste becoming less available for every place else, the amount of money paid to those who are willing to accept it rises. The temptation to provide a steady income and employment (unemployment rates are 25-75% in some areas) sometimes becomes irresistible. Dissension within tribal communities over these issues also exacerbates these problems.

- Archaeological Protection and Preservation: to protect Native American artifacts from site removal or destruction. Legislation has been enacted to prevent this kind of damage.

- Gambling: It may be stretching it a bit to think of gambling as an environmental issue, but since the situation (including gun-toting stand-offs) has become newsworthy, finding it on Page 1 or at the top of the evening TV news, calls attention to the financial concerns of Native Americans. Casinos may threaten their way of life but because they have a chance to earn legal big bucks this way, media does not allow the rest of the world to ignore concerns.

- Cultural Preservation: art, music, language, religion. The "politically correct" atmosphere now prevalent serves Native Americans well. "Dances with Wolves" is a far cry from old cowboy-and-Indian westerns.

It is a philosophy of the Iroquois Confederation that "In our every deliberation, we must consider the impact of our decisions on the next seven generations". It is to be hoped that this commandment governs not only the actions of Native Americans, but holds true for all of us.

Here are some helpful resources:

National Indian Youth Council, 318 Elm SE, Albuquerque NM 87102

Native Lands Institute, 823 Gold SW, Albuquerque NM 87102-3014

WOJB-FM Radio Station

Route 2 Box 2788, Hayward WI 54843
715-634-2100



Lenore Miller is Educational Specialist for Gateway National Recreation Area in Staten Island.

Recently the battle to save Cave Creek Cove in the Chiricahuas of Arizona from being leased by a South African Mining Company to be used for a cyanide gold mine was won by dedicated efforts of concerned citizens, including some ANSS members.

S.O.S.

Save Ohio's Serpent Mound

THE ONLY WORLD FAMOUS NATIVE AMERICAN MONUMENT IN OHIO IS IN DANGER.

A land speculator and recreational housing developer plans to forever alter the landscape that surrounds the GREAT SERPENT MOUND located in southern Ohio about an hour's drive south from Columbus. Brian Emler, of Mount Vernon, Ohio, president of US. Concord, Inc. plans to dam Brush Creek, backing up the water to create a lake that will flood the farm land around two-thirds of the Serpent Mound. The lake will cover the remnants of small mounds that exist along Brush Creek and, according to Ohio Historical Society spokesperson Maggie Sanese, "If that lake is built, a lot of valuable archaeological resources could be destroyed. A lot of questions—including who built the mound and when—might never be answered. Erosion from the lake is a big concern."

SAVING THIS PRICELESS TREASURE IS A BIG CONCERN!

Ohio has preserved many Indian mounds from destruction. The great conical Miamisburg Mound, Fort Ancient, Fort Hill, Mound City still remain. THE GREAT SERPENT MOUND, THE MOST MAGNIFICENT AND MOST RENOWNED MOUND IN THE COUNTRY, HOWEVER, IS NOT SAFE.

If Mr. Emler transforms this farming community and the free flowing Brush Creek into a recreational complex (lake, golf course, and condos), the Serpent Mound, which has survived from over 2000 years will, in effect, be destroyed. The mound will have lost all semblance of its original context. Ohio and the nation will have lost the greatest effigy monument in the world.

THE **S.O.S.** SOCIETY IS ASKING YOU TO EXPRESS YOUR OUTRAGE AT THIS PROPOSED DEVELOPMENT. Contact all of the persons and organizations listed below. If you value our collective heritage, if you are concerned about the destruction of Native American sacred sites, if you are concerned about this most extreme violation, a wounding of the soul of the Ohio Valley, indeed of America, please join us in honoring this place by stopping this development.

Gov. George Voinovich
State House
Columbus, OH 43215

American Rivers
801 Pennsylvania Ave.
Suite 400-R
Washington, D.C. 20003

Secretary Bruce Babbitt / Department of the Interior / C St. NW / Washington, D.C. 20240

Senators John Glenn & Howard Metzenbaum (Ohio)
Ben Nighthorse Campbell (Colorado), **Paul Wellstone**
(Minnesota), **Daniel Inouye** (Hawaii)
[address: US Senate, Washington, D.C. 20510, phone: (202) 224-3121]

Corps of Engineers / U.S. Army Engineers Division
550 Main St. / PO Box 1159
Cincinnati, OH 45201

For more information contact:

S.O.S.: JOE NAPORA, 2800 MOORE STREET, ASHLAND, KENTUCKY 41101 / (606) 324-1953

ENVIRONMENTAL EDUCATION TIPS:

MAKING FIRE, MUCH MORE THAN A SKILL. IT'S A PHILOSOPHY.

James Bruchac

I begin to swing my arm back and forth, my bow gripped firmly in my right hand. With my left hand I push down on the handhold, forcing the spindle into the notched hole of my cedar base board. My left foot holds the base in place and gives leverage for my left wrist, keeping it steady. My right knee and foot are on the earth behind me, in line with my bow strokes. Each piece of my kit is cut and shaped to fit together, like a finely tooled machine. As I increase my speed after a dozen or so strokes small amounts of smoke come from the notched hole. I push down harder on my hand piece and increase my strokes. The smoke thickens. After half a minute or so black dust forms around the base of my spindle, and the smoke is very strong now. I give ten more good strokes before I stop to remove the spindle, revealing a small black coal smoking in the notch of my base board. I blow lightly onto the coal, creating a little red glow and more smoke. Taking my knife I place it gently over the coal. Lifting the board, the coal is left behind sitting in my shredded cedar tinder. Slowly I lift my tinder wrapping it softly around the coal. More smoke appears. I blow light dry breaths into the bundle holding it slightly raised in the air close to my mouth. As the smoke increases a small flame appears. I blow harder and my tinder bursts into flames. Quickly, I place this burning tinder into the door of small tipi sticks, joining with more tinder, small twigs and light grasses to create an even bigger flame. After a few seconds the small sticks ignite. I add bigger sticks, as my chore is complete. I have given birth to fire.

Many Native and Non-Native peoples around the world have mastered the ancient arts of fire making. Techniques vary from the above mentioned bow drill to a variety of others including the hand drill, plow method, or more recent flint and steel variations. For every one of these methods there are many combinations of materials and techniques for achieving fire. For example, with the bow drill some prefer the use of a hard (spindle) on soft (base) wood combination. Others may use the opposite or prefer an exact match. Universally, medium soft woods are preferred such as

ceder or aspen for both tasks but just about any properly dried wood combination can eventually achieve a fire. Individuals may also prefer certain variations of tools used to fit their particular build and style. For example, due to the tall stature and thick upper bodies of the males in my family, we have adapted to a spindle as long as 12 inches and over an inch in diameter, accompanied with an arm length bow. Others of smaller stature may prefer a very short thin spindle with a miniature bow requiring quicker shorter strokes. Overall, there are many ways of making fire. People can argue, without my being concerned about what is the best method, because as I have learned, making fire goes further than a simple act of friction.

Fire making is a philosophy and in many cases a sacred one, a philosophy that all too many of us seem to ignore or not understand. As I have learned throughout my life there is significance in every act we do. Many, such as making fire, require the utmost respect. One of my uncles taught me that every step and tool used in making a fire has a life-giving significance that needs to be understood. Looking at each piece of the bow drill kit, I was told the hand piece represents the creator above, the spindle the male, the board the female, the notch provides the womb, and the tinder represents the earth. Once a coal is formed it represents the seed of life created by the bow strokes. Finally, our breath on the tinder gives fire birth from the earth into this world. Before this birth tobacco is often offered to the creator Ktsi Nwaskw and even more is offered

after the fire is created giving thanks, Wliwni Ktsi Nwaskw, for the many blessings it offers. Since I was a small child I have been taught to always give thanks for all that I am given in life, especially for gifts as important as fire. To better appreciate the significance in making a fire we must truly know the power of fire itself.

Ever since humans mastered the art of using fire, making fire has been a crucial part of survival. Fire brought our prehistoric ancestors warmth, cooked their food, and gave them protection against many



Jim Bruchac (on left) and his brother making fire.

feared predators. In the modern world fire does even more. It runs our cars, creates our energy, and has even helped put humans into outer space. Every day a new and more efficient use of this ancient gift is discovered. Fire making may seem to be truly mastered. Indeed, fire helped us into a new age, but do modern people still know its true power? Many ancient legends have been told about the spiritual importance of fire. There are legends that span the globe and, for those who still know how to listen and understand, the real gifts of fire are not forgotten.

Within the Cherokee legend of fire, for example, it is said that it was the sun's job to watch over the humans, but since the sun wanted to sleep at night she created fire to watch over the humans. Because of the fire's role as a sacred guardian, it is always respected by the Cherokee people. Native peoples across the continent share a similar respect for fire, and due to this understanding it is considered disrespectful to throw garbage or anything unclean into a fire, and you must never urinate on a fire. This understanding is in many ways a contrast to some Judaeo-Christian beliefs in which fire represents possible evil with its hell-like qualities. In contrast to this, fire also plays a major part in Native American ceremony. One such ceremony is the sweat lodge where fire has a crucial importance. Fire heats the stones placed in the lodge. The red glow and fiery heat of these stones help us to become closer to our mother the earth, closer to ourselves, closer to all of creation. When a person leaves a lodge they are like a new baby born into the world. Just as we can create fire, fire can help recreate us. This is one place where the power of fire lies.

In this modern world we find ourselves distanced from ourselves, from our fellow humans, and the rest of creation. Modern technology, while it may seem to make our lives easier, also breaks us apart. People work in climate-controlled offices protected from the outside world, each sitting at their own little desk, doing their section of "the job," separate, distanced. When people go home they sit in a small room in front of a little box that becomes their view of reality, waiting only for the next paycheck so they can purchase the next rage in technology - creating more distance from reality.

People everywhere are moving to safer neighborhoods and buying bigger guns. People and whole countries are harnessing the power of fire in the form of weapons, from small weapons that destroy a single life, to large weapons that can destroy all life. Everywhere it seems, distance built on fear that resulted in war and hatred, causing death and destruction. More than ever, we need to return to that old understanding, those old connections that

made us part of a circle, a circle that can be found around the glow of a fire. The legends, the ceremonies, all of the beliefs surrounding the fire, can help us to return to that flame.

In my wilderness classes I tell my students that you can survive in the woods without fire, and indeed you can, with a good shelter. But in the world today we need to do more than survive. From the landing of the first Europeans in the Americas the idea of survival has been premiere on this continent. It has been people against nature, people against each other in order to survive. The Spanish in Central and South America, the Dutch, French, and English in North

America all fought against nature, the original inhabitants and each other to survive. This legacy has continued on this continent and around the world to this day and it needs to stop. Many have survived, but it is now time to live. It is time to live not for your own survival but for the survival of all life through the power of understanding and balance, an understanding that can be helped by the healing gifts of fire.

Whether it is the fire in the rocks of a sweat lodge or the wood flames of a camp fire, the healing power of fire can still be felt. Sitting around this ancient gift, if you open yourself the old understanding will enter you. It is an understanding that the real danger in the world lies in our own hearts, within the

fear of ourselves. If you allow the flames to enter your heart, they will help burn away your fears and return you to balance, balance found in a circle of people sitting around this gift of fire, joining their hearts together, joining themselves back to each other and the earth. Legends, ceremony, song, and laughter around the fire are an ancient tradition joining us together. This gift of unity with all humanity is fire's most important gift. If we can't respect our fellow humans, how can we respect the rest of creation?

Because of the fire's power of unity the hand drill is my favorite way to birth fire. Not a single person hand drill, but one that requires two or more people. Two or more people work to create this ancient gift, working together to give birth to an ancient flame. Indeed, fire making is much more than a skill. It is a philosophy, a philosophy built on respect for this ancient gift. The ancient gift of flame has so much power that, if abused, it can destroy all life. However, fire also has a power which if understood and respected, can help bring us all back together again, back together within ourselves, with the rest of humanity, and with all of creation.



James Bruchac is a member of The Abenaki Nation and co-director of Northeast Tracking Project.



ENVIRONMENTAL EDUCATION TIPS:

MARKING SOLSTICES AND EQUINOXES

Helen Ross Russell

Curriculum Areas:

Science, history. Middle School and up, Camp.

Rationale:

Early people everywhere were tuned into the sky and their personal relationship with sun and stars. Today we have turned observation, measurement, and discovery over to instruments and computers and in so doing have lost a sense of belonging, joy and wonder.

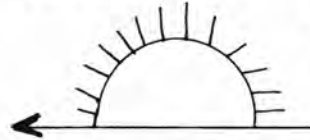
Background:

Through the ages people not only observed but measured, recorded, marked and predicted the "Travels of the Sun". They have celebrated and geared their activities to the Summer Solstice, Fall Equinox, Winter Solstice and Spring Equinox for untold thousands of years. As markers for these events turned up, questions were asked, and answers began to appear. Eventually in the last 30 years a new science developed called Astro-archeology or Archeo-astronomy. These scientists search for markers for these sky calendars all over the world and try to discover what they measured. Their research has not only fostered an appreciation of the commonality of humans who were tied into the Earth; it has impressed the 20th century "aren't-we-great superiors" with the fact that investigating, researching, reasoning brains are neither our invention nor sole preserve and that our proliferation of knowledge comes not because we are smarter but because we stand on the shoulders of our ancestors, including the ancient ones.

Astro-archeologists have found observatories all over the world. Many are newly discovered sites, some like Stonehenge are old monuments whose alignment and significance has been rediscovered by measurement and study. There is the gold disc on the front of an Egyptian tomb positioned in such a way that the light from the noonday sun strikes the exact center on the summer solstice. We find Celtic circles scattered over Europe and are just beginning to learn something about their relationships to the sun, moon and stars.

In North and South America many astro-archeological sites have been discovered: a golden disc on the temple of the Sun just outside of Lima catching the Sun's rays on the first day of summer; a hole in the roof of a cave near Xoxicalco in Mexico constructed so the rays of the sun at noon of the summer solstice are directed to and reflected from a floor of mica which had been brought or purchased from another

area; an observatory of sophisticated sighting structures and recordings at the Chaco (900 to 1250 AD) Anasazi site in New Mexico. An interior room at Casa Grande, near Phoenix, Arizona whose window looks out on a second window on the exterior of the tower and lines up with a point of the horizon where the sun sets on the first day of summer. Recently a simple and exciting site was recognized on a rock outcropping known as Newspaper Rock on the edge of the Painted Desert. This rock is covered with scores of petroglyphs whose significance is not known but on the very top is a sun on an arrow.



If you kneel and sight along the arrow you will be looking at the point on the horizon where the sun sets on the first day of summer.

How many other ancient sun markers remain to be discovered? How many will never be discovered because they have been destroyed, or buried or decomposed or disintegrated? We will never know. Many people had visited Newspaper Rock; it took a young astro-archeologist to realize that she was looking at something that had a message. There are many sites to be discovered and recognized. There can also be the excitement of making our own record of the seasons.

Materials:

1. An observable horizon
2. Stones, wood, a hole through which the sun shines or any other material or structure that can be used to mark a straight line between you and the setting (or rising) sun, or a place where the rays of the noonday sun can be caught and recorded.

Activities:

Select your location and the special date and time that you are going to mark; i.e. sunrise, or sunset of the summer solstice (a camp activity) or sunset of the spring equinox (after school program) etc.

Locate the appropriate horizon and observe the setting (rising) sun's position over a period of time. Decide on your sighting site and assemble the materials. You will need to set up two points that will lead directly to the sun on the horizon on the day of the equinox or solstice. They must be adjustable at the specific moment and must then be secured so that they are readable for purposes of prediction for years

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ENVIRONMENTAL EDUCATION TIPS: A Gift for a Tree

Fran Ludwig

Ten year old Mike triumphantly yanked a horsetail up by the roots. "Wow, look at this weird plant. Did the Indians use this one?"

Wincing, I introduced my group of Earth Club youngsters to the theme of our summer "Walk in My Moccasins" program. I explained that traditional Native Americans have a very special relationship to all the things of the earth – trees, raccoons, rock and horsetails. Indian people believe that the earth is their mother and that every part of her has its own special value. Long ago, when European people arrived in Massachusetts, they found native villages where all of the necessities of life came from the land or sea. Today we are beginning to realize that all of our life is still connected to the earth, but we don't always see the connections.

Traditional Native children are taught to respect all natural things as expressions of the Creator. All creatures are part of the great circle of life on Mother Earth, with no one thing (including humans) being more or less important than another. In fact we all depend on each other as brothers and sisters. This cycle of giving and receiving is fundamental. If a woman harvests birch bark for cooking pots, she first apologizes to the birch for diminishing its life to make hers better. If a man hunts a deer, prayers and gifts such as tobacco are offered to the spirit of the animal hunted. If the animal appears, it is taken as a sign that the animal accepts the offering. Nothing is wasted after the animal is killed as a further sign of respect.

"Today, let's imagine that we are living here 600 years ago. All our food, clothing and shelter must come from Mother Earth. As your elder, I will teach you the first lessons in finding food plants. As we collect plants to sample and snack on, we must take no more than we can use, and we must offer a gift of thanks to our green friend. But what kind of gift shall we give? Many Native Americans use tobacco. But most of you don't have tobacco to offer. Let's use something you value, something that, like tobacco, comes from a plant. This gift was discovered by the Native people in South America. It is made from the sap of tree, chicle, and is often flavored with spearmint. That's right, it's chewing gum! We will take turns offering a piece of gum from our group (unwrapped) to

each type of plant that we gather food or medicine from. Whatever gum is left, you can keep."

We thanked the spirit of the white pine for its healthful nibble of vitamin C with Beech Nut gum. Our gratitude to the yellow birch for its twiggy taste of mint took the appropriate form of teaberry (another name for the lowgrowing wintergreen plant) gum. Likewise, blackberries, hazelnuts, blueberries and staghorn sumac (from which a tangy drink was made) were ceremoniously acknowledged.

With our hunger pangs hastily quelled, we hiked to a hemlock grove and quietly listened to

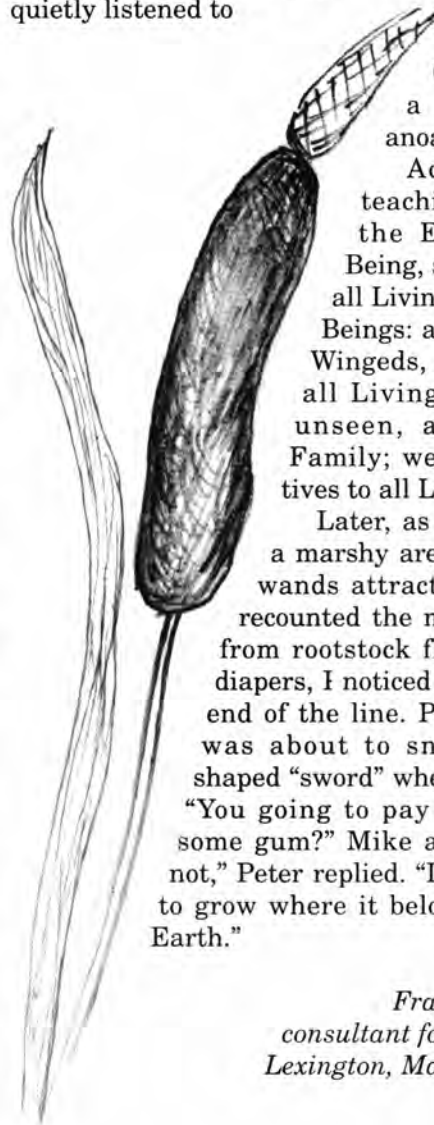
words of Gkisetannemoogh, a Mashpee Wampanoag:

According to the teachings of our People, the Earth is a Living Being, she is the Mother to all Living Beings. All Living Beings: all Earth life, all the Wingeds, all the Water Life, all Living Beings seen and unseen, all these are our Family; we humans are relatives to all Living Beings.

Later, as we passed through a marshy area, fat brown cattail wands attracted the group. As I recounted the many uses of cattail from rootstock flour to stuffing for diapers, I noticed a commotion at the end of the line. Peter, Mike's friend, was about to snap off a sausage shaped "sword" when Mike cut him off. "You going to pay this cattail spirit some gum?" Mike asked. "No, I guess not," Peter replied. "I'll just leave it here to grow where it belongs. Sorry Mother Earth."



Fran Ludwig is Science consultant for K through 5 of the Lexington, Massachusetts schools.



ENVIRONMENTAL EDUCATION TIPS:

Samp in the Stew Pot

Helen R. Russell

Curriculum Areas:

Social Studies, Botany, Cooking. Grades 1-8

Rationale:

Learning about the food of any people gives us insights into their culture and lifestyle.

Background:

Corn, beans, and squash known as "The Three Sisters" by the Iroquois and a number of Algonquin tribes, including the Cherokees, were the basic food crops wherever rainfall and frost free days were adequate for their growth. Of these three, corn was the primary food source. Corn was prepared in many different ways, but the most common day-to-day food was a coarse corn meal called *samp* by the Iroquois. Generally, samp had one or more food items added to it.

Recently, I visited the restored Wampanoag Village at Plymouth, Massachusetts. In the center of the bark wickiup food was bubbling in a clay pot. The young Wampanoag who had been working on the dugout canoe came in with his wooden spoon and bowl and helped himself. "What's in it?" I asked. "Corn meal, dried squash, and raccoon," he replied.

When we have our festival at Manhattan Country School our samp is cooked with duck and cranberries. Nobody made cranberry sauce in a period of history when sugar was virtually unknown, but cranberries added to cooking game certainly improved the stew!

When the botanist, John Bartram (1699-1777) walked from Philadelphia to Canada following the Hudson River, he moved from one Iroquois village to another. In his journal he not only recorded plant information, he also told of his meals. One day he wrote that the woman with whom he was staying had "more than 100 recipes for corn meal." Since neither native people nor colonists had cookbooks, this was a way of expressing admiration for a good cook as well as for a good botanist who knew many edible plants and their seasons. Today you can make some of the various foods that she cooked by shopping in the grocery store.

Materials:

From the grocery store:
 corn meal, white or yellow
 cranberries
 blueberries

hazel nuts
 black walnuts
 sunflower seeds
 squash seeds
 pumpkin seeds
 duck (The ducks we purchase today are descended from ducks domesticated by the Aztecs.)
 turkey - also domesticated in Mexico and the ancestor of our holiday bird. The *wild* turkey is a different species.

fish
 clams
 oysters
 smoked oysters
 string beans
 dried beans (soaked)
 pumpkin
 squash
 mushrooms
 sun chokes

If teacher or some family members hunt, game may be used. Or, depending on the season (Sp., Su., F) and geography, add some wild foods:

ground cherries	F.
paw paws	F.
beach plums	Su.
wild persimmons	F.
hog peanuts	Su. F.
violet leaves	
and/or flowers	Sp., Su., F.
puffballs	Su., F.
morels	Sp.
passion flower fruit	F.
spicebush berries	F.
bergamot (Monardo Sp.)	
leaves and/or flowers	Sp., Su., F.
basswood flowers	Sp.
male catkins of pine	Sp.
pine seeds	F.
wild onion	Sp., F.
hawthorn berries	F.
elderflowers	Sp.
elderberries	Su.
huckleberries	
or blueberries	Su.

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ENVIRONMENTAL EDUCATION TIPS: Green Corn

Helen Ross Russell

Curriculum Area:

K to Adult. Camp or classroom. Culinary arts, science, history

Rationale:

Harvest time for "green corn" was always a time of celebration. Corn was a twelve month basic food but green corn (e.g. unripe corn), depending on climate, soil and weather, was only available for days or possibly weeks, if there had been a series of plantings. Also, if too much corn was harvested green, there would not be a winter supply of food.

Background:

Sometimes we purchase sweet corn and are disappointed in its flavor. We say, "That wasn't a good variety." Actually, it probably was a perfectly good variety that had either been picked after it had begun to ripen or had been in the store so long that the sugar had begun to turn to starch. Any corn - field corn, sweet corn, popcorn - is sweet when it is green; as it ages the sugar is converted to starch for storage purposes.

Activities:

1 - Corn on an outdoor fire. There is nothing better than corn on the cob roasted on embers. Soak the corn in the husk 5 to 8 minutes. Lay the corn on the embers or across 2 green logs 1 1/2 - 2 inches in diameter. Turn after 5 minutes. Remove 5 minutes later. Check for doneness. If evenly roasted, husk and eat.

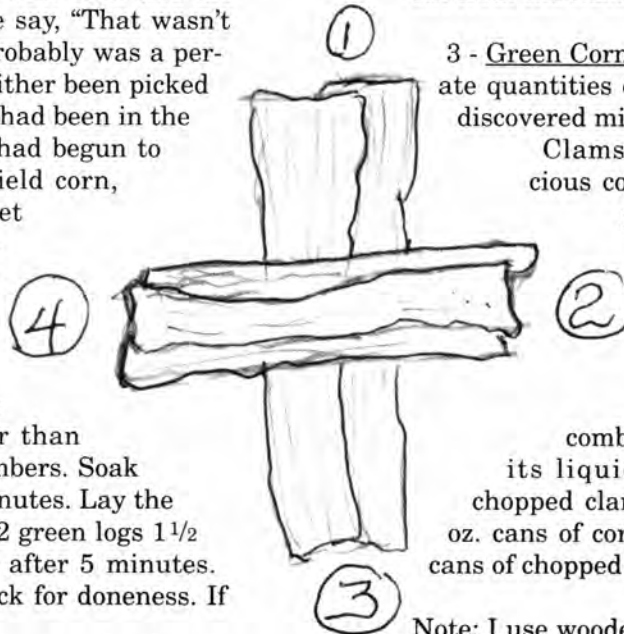
Lacking an outdoor fire, corn may be done in the oven. In this case, do not soak in water.

2 - Iroquois Dumplings as reported in Bartram's Journal.

This is a good group activity. Put a pot of water on to boil. A clay pot on an open fire is authentic but rarely available. Iron pots were trade items that appeared in many places in the 17th century. It may be used on an outdoor fire, in a fireplace or on a stove. Or an electric fry pan will enable you to work in a classroom; or saucepan on a burner.

Divide the class into 4 groups. Group 1 will cut corn off the ears using clam or oyster shells after

removing the husks and laying them aside. Group 2 takes three-quarters of the husks and lays them out in a cross form - one for each participant. Group 3 tears the remaining husks into 1/4" narrow strips and knots them together to make 16"-20" long "strings". Group 4 mashes the beans with a smooth rock or a wooden spoon. Corn and beans are combined. A mussel shellful of the combination is put in the center of the cross. Bartram said husk was "lapped" (folded) over the mixture. Start with number 1 and go clockwise, overlapping snugly. Hold packet firmly while someone from Group 3 ties it from both directions. Drop into boiling water. Cook 8-10 minutes. Remove, let drain, and cool until touchable. Open packet and eat from the husk.



3 - Green Corn and Clams. East Coast peoples ate quantities of shellfish, as their frequently-discovered middens attest.

Clams and green corn make a delicious combination. If you are "starting your meal from scratch," corn may be cut from the ear as in Activity 2 and clams roasted in their shells, and combined in a clay or iron pot. But a simple but authentic classroom meal can be made by combining a 12 oz. can of corn and its liquid with an undrained can of chopped clams. For a larger group, two 16 oz. cans of corn may be combined with three cans of chopped clams.

Note: I use wooden bowls, quahog shells, wooden spoons, mussel shells, corn husk for serving. I do not use plastic or paper when I am teaching about a society that often remade broken arrowheads into scrapers, used broken pots as griddles for bread, used every bit of the deer or other animal harvested. If I am in a situation where wood and/or shells are not available, I would use pottery or china and stainless steel. While these were not used by native peoples, the spirit of care and re-use is infinitely more authentic than the throw-away-after-one-use philosophy. Furthermore, I would discuss the basis for this decision with the group.

Good stones for crushing beans, cracking nuts, grinding seeds can be collected in many areas.



Meet Some Contemporary First Nations People



Keva Herman

Lakota Sioux

I am Keva Herman.

I go to school at Red Cloud Indian School. I'm in the 4th grade. My favorite subjects are Math and English. I'm in the gifted and talented Math group.

I am in the dance club and I dance jingle dress. We go to Pow-wows of other schools. I live with my Mom and my 3 sisters - Maisie 2, Sammi 5, and Sarah 1.

We are always busy. I like to swim and ride my bike. I have a dog named Tammy; she always barks at everything. I got a perm in my hair last week. I like it.



Marianne Left Hand Bull

Rosebud Sioux

Marianne Left Hand Bull may not be a typical Sinte Gleska University student, but she certainly represents the type of student the University has attracted and served during its 21 year history. Marianne is 44 years old, the mother of seven children, who came to the University after her youngest children [twin daughters Christa and Candace] started kindergarten.

"A few years after my twins were born, I tried to get work, but couldn't find a job. The job market outgrew me. The jobs available demanded more advanced skills than when I worked before," she says. What convinced her to enroll in a college program? "My son, Larry, challenged me to go back to school. He was a student at Sinte Gleska and he was thinking of dropping out. I kept telling him to hang in there, to go to all of his classes, not to let it go. He said, "If it's so easy, you go back. If you go, I will." The challenge worked for both of them. Marianne received her Bachelor of Arts degree in Human Services at the August graduation ceremonies. Larry, age 24, received his Associate of Arts degree in Education, begins his student teaching in the fall, and should receive his Bachelor's degree in Elementary Education next August. University life wasn't without its fears and stresses. Very honestly she says, "I was afraid because of my age. I didn't know if I was capable of handling it; of raising a family and going to school at the same time. The work was tiring. There was a lot of stress involved, especially with a family and bills to pay. But I sit and study after everyone goes to bed, usually until 1 and 2 in the morning, then up at 7. After a while, the body adjusts and it's not so bad. All the studying and the papers—when I passed, there was a satisfaction there, that I did it!" She laughs, remembering one particular instructor and the heavy workload required for his class, "It's worth it."

Marianne gives a lot of credit to the instructional staff at Sinte Gleska and what she calls a "happy atmosphere". According to her, "The instructors and staff are there to help you get an education. If you have any problems, there are places to go and people will help you. They bend over backwards for students here. There are instructors; there are tutors; there are students who help other students. It's a friendly place where people look out for each other."

It's literally been a long road for Marianne from the first semester to graduation. When she began her career four years ago, she caught the 8 a.m. van that took her from her home community of St. Francis in the Rosebud Sioux Reservation in South Dakota to the mission campus, a trip of 21 miles. That first semester she had evening classes which meant she didn't leave for home until the last van pulled out of the university parking lot at 10 p.m.

Marianne's plans for the future include continuing to work with the Human Services FIPSE project (Fund for the Improvement of Post- Secondary Education) for the next two years. This project is developing appropriate strategies and interventions for Native American clients and incorporating this research into the department's courses. After that, Marianne would like to work as a counselor in the elementary school, or set up a program for young children that helps them develop coping skills for the problems that often beset them at a young age.



Joseph Bruchac

Abenaki

Born in 1942, Joe Bruchac lives with his wife, Carol, in the Adirondack mountain foothill town of Greenfield Center, New York, in the same house where his grandparents raised him. Much of his writing draws on that land and his Abenaki heritage. Although his Indian heritage is only part of an ethnic background that includes Slovak and English, those Native roots are the ones he has been most nourished by. He is an enrolled member of the Abenaki Nation of Vermont, St. Francis Sokoki Band.

From 1960 to 1965 he attended Cornell University, where he was a varsity heavyweight wrestler, editor of the student literary magazine and graduated with a B.A. in English with a minor in Wildlife Conservation. He then obtained his master's degree at Syracuse University, where he held a Creative Writing fellowship. From 1966 to 1969 he lived and taught in Ghana, West Africa and on his return to the United States founded The Greenfield Review Press, which has been described as one of the leading publishers of multi-ethnic literature. In 1974, he earned a Ph.D. in Comparative Literature from the Union Institute (Ohio).

Between 1972 and 1981, he founded and coordinated Skidmore College's external degree program at the Great Meadow Correctional facility. Since leaving Skidmore in 1981, he has been a freelance writer and storyteller and continued, with his wife Carol, to edit The Greenfield Review Press. He has also served as an adjunct faculty member or writer in residence at Hamilton College, Columbia University and The State University of New York at Albany.

Co-author with Michael Caduto of *Keeper of the Earth* (1988), *Keepers of the Animals* (1991), and *Keepers of the Night* (1993), Joe Bruchac's poems, articles and stories have appeared in over 5 publications, from *Akwesasne Notes* and *American Poetry Review* to *National Geographic* and *Parabola*. He has authored more than 50 books for adults and children, including *Thirteen Moons on Turtle's Back*, chosen as a 1993 Notable Children's Book in the Language Arts, and an IRA Young Adults and Teachers Choice. His most recent books include two books for adult readers — a novel, *The Dawn Land* (1993) from Fulcrum Press, and *Turtle Meat* (1992), a collection of his original short stories from Holy Cow! Press — and two picture books for children — *The First Strawberries* (1993) and *Dial and Fox Song* (1993) from Philomel Books. His awards include a Rockefeller Humanities fellowship, two New York State CAPS fellowships, an NEA Writing Fellowship, the Cherokee Nation Prose Award, a PEN Syndicated Fiction Award, and the Hope S. Dean Award for Notable Achievement in Children's Literature from the Foundation for Children's Literature. In 1993 he was given the Benjamin Franklin Award as "Person of the Year" by the Publisher's Marketing Association.

As a professional teller of the traditional tales of the Adirondacks and the Native peoples of the Northeastern Woodlands, Joe Bruchac has performed widely in Europe and throughout the United States. A former member of the Board of the National Storytelling Association (NAPPS), he also served on the board of the Poetry Society of America and is a past chair and board member of COSMEP, the Independent Publishers Association. He was the primary organizer and National Chair of **Returning The Gift**, a project for Native American writers which culminated in the first-ever North American Native Writers Festival in July 1992 in

Norman, Oklahoma which more than 200 Native writers from throughout the continent attended. In 1992 he was featured at the National Storytelling Festival and was one of the featured poets at the Dodge Poetry Festival.

He is deeply involved in the study and teaching (with his two grown sons, James, 24 and Jesse, 21) of traditional Native skills such as basketmaking, tracking, fire-making, and survival skills. He is also interested in gardening and the martial arts. He holds a black belt and the rank of instructor in Pentjak Silat, the martial art of Indonesia and has studied Tai Chi and Kung Fu Wu Su.



Goingback Chiltoskey

Cherokee

His Cherokee name is Utsvdy Tsiladoosgi; the modern Cherokee people speak English and call him Goingback Chiltoskey. His wife Mary calls him G.B.

A family story tells that G.B.'s grandfather was one of the Cherokee people driven to the West during the removal, the infamous Trail of Tears. His son, Will Chiltoskey, was so unhappy and homesick that he often talked of plans to go back to the mountains. In time he did return and named his youngest son Goingback in tribute to the stubborn strength of his people.

Goingback Chiltoskey was born in the Smoky Mountains near Cherokee, North Carolina on April 20 1907, the tenth and last child of Charlotte Hornbuckle and Will Chiltoskey. His parents spoke Cherokee and he spoke only the old language until he was ten.

One of G.B.'s earliest memories is his older brother Watty carving and letting him whittle with a new pocket knife Watty gave him. Watty and Goingback would remain close and work together at times until Watty's death in 1973.

When Goingback was ten, two truant officers found G.B. near his home at the forks of Bright's Creek and Big Witch and "took him down to the boarding school at Cherokee."

At the Bureau of Indian Affairs boarding school Goingback lived in the boys' dorm where the boys were to speak only in English. He tells about trouble understanding the instructions he was given. Punishments for speaking Cherokee including washing out the students' mouths with soap and being locked in or sent to their rooms. G.B. remembers taking his pocket knife and going out in the woods with some of the other boys so they could whittle and talk in the old language and rest a little from the new demands.

The Chiltoskeys lived off the land so they had no money to help G.B. He had to find ways to earn what little money he needed. Early on he learned he could carve things that people valued and which they would buy.

After completing the ninth grade in 1927, Goingback went to Parker High School in Greenville, South Carolina. He found odd jobs in his four years at Parker and again he found that people liked his carvings enough to buy them. He remembers that he was the "only Indian in town," and some of the citizens of Greenville seemed afraid of him, afraid that he would "turn wild."

After Parker, G.B. was admitted to Haskell Institute in Lawrence, Kansas, a tribal school established in 1884 for American Indian students.

At Haskell, he was in demand for camp work all over the country. He worked at camps teaching children the Cherokee crafts, while he studied woodworking, carving, and crafts of all kinds at Haskell and Santa Fe, and later at Oklahoma State University, Purdue University, Corcoran School of Art in Washington D.C. and the Chicago Art Institute.

Goingback teaches the way he sees things, carefully, without regard to the present time. He remembers seeing buffalo on a ranch in New Mexico and describes his way of looking at the animal. "I would go around and around the buffalo," he said.

"You know, when you see a picture of a buffalo, you don't see the buffalo because you don't see the thickness, the textures." He is frustrated sometimes when people ask him how long it takes to finish a carving because he doesn't deal in time.

He taught at Cherokee High School eight years while he continued carving. Several of his carvings, including his famous *Woman Carrying a Bundle* and *St. Francis of Assisi*, were displayed at the Smithsonian Museums in Washington. He was awarded the first Purchase Award for woodcarving in the North Carolina Museum of Art for his great horned owl in 1954.

In 1942, Goingback accepted a position with the U.S. Army Corps of Engineers in Washington, D.C., but soon was transferred to the War Department where he worked on scale models of new inventions, invasion maps and bombing targets.

A few days after he left for Washington, Mary Ulmer arrived in Cherokee to teach. Born in a log cabin in Alabama, she had started teaching with a one year certificate when she was sixteen. Seventeen years later, having earned a BA from Livingston College and an MA from George Peabody while teaching, she applied for a job at an Indian Reservation and was assigned to Cherokee. From the time she was a young child Mary had "wanted to be an Indian". She came to Cherokee with a keen interest, a commitment to teaching and a desire to learn.

Very soon, though she had only met G.B. once, she was asked to write a story about him for *Haskell College Alumni Bulletin*. One thing led to another — Mary was visiting, listening and learning. She also felt that it was important to get the stories and knowledge of the old ones on paper. As a starter, she and G.B. worked together on compiling a cookbook of old recipes. (see *Good Reading*)

Even though G.B. was still working on models in Washington, he spent a lot of time in Cherokee. When they began to make wedding plans in 1956, they discovered that it was illegal for them to marry in North Carolina., so they were married in Knoxville, TN. and Mary joined others in having the law repealed. Together they have been involved in many activities. Goingback has produced many sculptures. He was a charter member of Qualla Arts and Crafts which has grown to be a model cooperative throughout the country. G.B. has said of Qualla "our craft people needed to continue their crafts. Only members of the tribe may belong. Qualla is both a showplace and a place where quality crafts are marketed."

When it was decided that the Cherokee children should have the opportunity to learn the old language, a compilation of words done by Will West Long before he died was turned over to Mary to provide a book for children (or any beginners for that matter). She worked on this with G.B. and Watty and *Cherokee Words with Pictures* was published in 1972.

G.B. and Mary were active in the Southern Highland Handcraft Guild from its inception in 1947. In 1982 G.B. was honored with a life membership in the International Wood Collectors' Society. In this society Goingback has contact with people all over the world who love, collect and work with woods. He has made a display of wood samples of the 26 woods that grow within two miles of his home. He has written a paper about them and carved a sculpture from each of them.

A serious stroke in 1988 slowed him down but didn't stop him. In 1990 he was invited to demonstrate using a blow gun for a TV program, and amazed them by hitting the bull's eye. In 1991 he played a revered Mohawk warrior for the feature film "The Last of the Mohicans." In 1989 the Eastern Band of the Cherokee invited Mary Ulmer of Alabama to be an honorary Cherokee. Her Cherokee name is Ah - hi - ga - li - ya Ah - tsi - nv - si - ea - sdi which means "dedicated servant".

Over the years Goingback and Mary have agreed to thousands of requests from groups all over the south to come and talk about Cherokee Crafts, legends and history. They are a combination missionary-ambassadors for the culture they know and love.

Extracted from "The Artist and the Storyteller"
by Mary Regina Ulmer Gallaway 1991





Winona LaDuke

Anishinabeg

Winona LaDuke earned a BA at Harvard University in Native Economic Development. While there, she was assistant director of the Harvard Foundation for Developing Programs for Campus Improvement of Race Relations. Following Harvard she completed graduate work in Urban Studies at MIT and in Rural Development at Antioch.

She is a founding member of *Women of All Red Nations*, co-chair of *Indigenous Women's Network*, Director of *White Earth Land Recovery Program* and a member of the *Greenpeace* board of directors.

While some of her activities have taken her as far away as NM, she has consistently been involved with projects at the White Earth Reservation in northern Minnesota where she was born and educated before her college years.

In the following article from *Environmental Action*, Fall 1993, Winona LaDuke tells some of the history, the problems, the activities that are going on under the White Earth Land Recovery Project of which she is campaign director. For more information write:

White Earth Land Recovery Project
Box 327
White Earth, MN 56591



It's a misty morning on Big Chippewa Lake. An Anishinabeg couple drags their canoe toward the water's edge. The woman boards in front and sits on her haunches. The man pushes the canoe offshore and jumps in behind her. As they pole toward the wild rice beds they can feel the crisp dampness of September on their faces. The man rises to stand, head just above the tall stalks of rice. The woman pulls the rice over her lap with one stick and gently raps it with a second.

There are many wild rice lakes on the White Earth reservation in northwestern Minnesota, of which I am a member. The Chippewa Indians, or Anishinabeg as we refer to ourselves, call the rice "manomin," or gift from the Creator. Over half our people on the reservation harvest wild rice, depending on it for as much as 40 percent of their yearly incomes.

But just how long the Anishinabeg can continue to harvest wild rice is questionable. We face two challenges that increasingly threaten our cultural and economic relationship with wild rice. The first is the degradation of the wild rice ecosystem by industrial society. Pollution is reducing yield and destroying natural rice beds. Altered water levels resulting from the damming of rivers and the draining of wetlands for development have also taken their toll on rice production. The second challenge is the development of a conventionally farmed, paddy-grown "wild" rice. This cheaper imitation rice now dominates the market and has pushed the price of real wild rice so low

that until we organized, we could not make a living as we used to.

Loss of wild rice sales is not our only economic problem. The Anishinabeg reserved an 837,000-acre reservation under the treaty of 1867. This land containing the wild rice beds, pine forests, maple sugar stands and native prairies was selected by our headsmen to provide for the generations of our people. It is unfortunate, however, that the wealth of our land is now the source of our poverty. Land speculators and timber companies coveted our homeland, and through a series of legislative acts, individual transactions and shameful deeds, successfully wrested most of our land from our control. By 1934, only 7,890 acres remained in Indian hands.

The loss of our land drove our people into poverty and many of us off our land. By the 1930's, over half the population had been forced off the reservation, mostly into urban areas in the south, and today only 4,000 of our 20,000 tribal members remain on the land. In 1993, over 90 percent of our treaty-protected land is held by non-Indian interests, including a third of the lands held by the federal, state and county governments. Our people have been made refugees in our own land.

Today, with the majority of our population well below the poverty level and 65 percent unemployment on the reservation, the people are reliant upon the land for subsistence harvest and for what may be called the traditional economy.

Essentially, we need the land to feed our families.

Three-quarters of us hunt deer on the reservation, 60 percent harvest maple syrup and similar numbers harvest berries, medicinal plants, fish and materials for baskets and handcrafts. Increasingly, however, the problem is the conflict between non-Indian land use/ownership and our own relationship to the land. Since we control so little of our land, most of our people are forced to harvest on the remaining tribal land base off the reservation. This restriction of our harvesting ability and loss of access to cultural sites causes great consternation in our community.

While the deer population on our original land base is substantial, we are concerned that it is maintained for our future generations. Non-Indian sport hunting of reservation deer exceeds Indian harvesting by a factor of two to one. In another instance, over 96 percent of the fish harvested in one lake were taken by non-Indians. Wetland drainage, clearcutting, use of defoliants and other toxins in our environment threaten both our people and our relations.

At the White Earth Land Recovery Project we are trying to rebuild our land-based community. We recover land through negotiations and acquisition of significant areas. We are also forwarding federal legislation to secure 45,000 acres of land

the U.S. government took from us that lies within our reservation borders.

In the past few years, we have begun a tribal organic wild rice marketing collective, and in the last year we began our first maple sugarbush harvesting. The project involves members of five families and has produced approximately 320 gallons of grade A syrup.

Last fall, the project hosted our first meeting on traditional ecological knowledge, attended by an invited delegation of Anishinabeg elders from Canada, Wisconsin and Minnesota and environmental resource people. This meeting provided an opportunity to articulate in our own terms the relationship between our traditional values and codes of harvesting

and sustainable land use and resource management practices.

Back on the wild rice lake the first sound is the swish of 20 or more rice heads being pulled over the woman's lap. The second is a short rap of the rice being knocked into the bottom of the canoe. These noises, combined with laughter and talk, are the sounds of the wild rice harvest on the White Earth reservation. And they are sounds of our traditional economy at work, sounds we hope to continue hearing through the generations yet to come.



Rigoberta Menchu

Quiche

Rigoberta Menchu was the winner of the 1992 Nobel Peace Prize. She is a Quiche, a descendent of the Mayans.

Like many Indians in Guatemala, as a child she worked on a coffee plantation with her parents. First caring for her baby brother when she was five so her Mother could work without interruption, then at eight beginning to pick coffee. When she was 13 or 14 she went to the city to work as a maid. While there she learned Spanish in order to protect herself from being exploited, to learn what was going on, and to be able to communicate with people beyond her village.

Before she was born her parents had been forced out of the village with other Indians when the owners of the plantations took over the land. The Menchus had fled to the mountains and carved out a farm. Other families joined them. Rigoberta's father was selected to be the new village leader. Once the land was well enough cleared and cultivated to produce crops the plantation owners again moved in and claimed it. Vincente Menchu organized the Indians to protest. In 1975 he was arrested and jailed. This was the first of several arrests. Since no one in the government would listen to the Indians protest, they took refuge in the Spanish embassy in 1980. When they refused to come out, the 400 soldiers surrounding the

embassy sealed it off and burned it — with 10 embassy employees and 29 Indians inside. A year before, her brother and other protesters had been kidnapped and tortured for 16 days and then set on fire in front of their families. Three months later Rigoberta's Mother was captured, raped, beaten and tortured, then laid out in the sun in public view to die. Rigoberta, then 20 years old, was being hunted.

From the time her father was first jailed until she had to flee 5 years later she was an activist, visiting villages, teaching people to fight off the armed intruders, organizing workers. In order to communicate more effectively she began learning the other major Indian languages. When soldiers located her she fled to a church and from there to a nun's home where she worked as a maid until she could be smuggled out of the country.

She dictated the book I, Rigoberta Menchu, An Indian Woman in Guatemala (first published 1983). She spoke at the UN and continued speaking in many countries.

Gradually organized opposition to the military government grew. On May 13, 1993 the people of Guatemala took to the streets. Four thousand people rallied to the funeral of a student protester killed by police. Rigoberta Menchu arrived in the country May 17 to organize an international indigenous conference and took advantage of her recent Nobel prize to lead the civil opposition.

President Serrano fled the country on June 3. Choosing a new president was turned over to the Guatemalan Congress. Rigoberta's expertise will be needed for years to come as Guatemala begins to recognize the rights of all its people.

Excerpted from Biography Today Vol. 2 No. 1

Published by Omnigraphics, Penobscot Building, Detroit, MI 48226
and Non Violent Sanctions News from the Albert Einstein Institution,
50 Church St., Cambridge, MA 02138



Keepers of the Dawn Land *continued from page 25*

our own lives and, as educators, to pass it on to future generations. A broken relationship will not heal without a willful act from the one living in a disconnected way. It takes a leap of faith, a simple act of healing. The gifts of Native North American stories and environmental activities are the seeds of wisdom they contain. Seeds we may sow in our hearts and in the hearts of children. Seeds of the possibility for continued life on Earth.



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Michael J. Caduto, a storyteller with the Vermont Council on the Arts and an associate of the Atlantic Center for the Environment, actively supports Native American visions of Earth stewardship and successfully integrates them with environmental studies. He has written seven books and over 100 articles for magazines, in addition to co-authoring (with Joseph Bruchac) the national bestseller Keepers of the Earth: Native American Stories and Environmental Activities for Children and recently published Keepers of the Animals: Native American Stories and Wildlife Activities. He currently travels throughout North America presenting environmental and cultural performances, programs and workshops for children, educators, naturalists, conferences and general audiences. For more information about programs and publications contact: Michael J. Caduto, P.O. Box 1052, Norwich, Vermont, 05055. Telephone: (802)649-1815.

Five Books by Eva L. Gordon Award Winners

The Desert is Theirs (1975) and Desert Voices (1993)

These two books written by Byrd Baylor (the 1992 E.L. Gordon Award Winner) sing of the beauty of the desert and of the interwoven patterns of plants, animals and the people who live there. Each is illustrated by Peter Parnall (the 1982 Award Winner). Each costs \$4.95.

When Clay Sings (1972) is also by Byrd Baylor, this time illustrated by Tom Bahti. Like the other two it is delightful reading as it brings together modern children finding potsherds and relating to the life and the history of the people who made the pots long ago. Cost \$3.95.

All of these books have a joyful quality which makes reading and listening fun for children while they enrich any study of environment, of native peoples, of language arts and of art.

Wolves - Laurence Pringle (1982 E.L.G. Award Winner) Charles Scribner's Sons, New York, 1983 \$12.95

The wolf is a much maligned creature, suffering from the same stigma bestowed on snakes, sharks, vampire bats, and whatever other animals strike fear into the hearts of people with little or no justification.

Why the wolf has been subjected to this unpopularity can be somewhat traced to humankind's view of them in the Middle Ages. They were a creature of the night - stealthy and silent - as they hunted their prey to exhaustion. There were the superstitious and ignorant who viewed the wolf as a tool of the Devil because of their unblinking, yellow stare and nocturnal forays. Even those without strong feelings of dislike or unease regarding the wolf would have been hard-pressed to list any positive attributes. Until recently, no group or culture except the Indians and Eskimos afforded them any respect. It took people who depended on hunting to survive to recognize the wolf as a compadre; an animal whose endurance and prowess were a match for their own.

Laurence Pringle's book touches on the myths and misconceptions that have plagued the wolf, and stymied their study, for decades. He introduces the reader to the more realistic, and surprisingly more compassionate, view of this canine. They are strong and relentless hunters but they are also good family members - contributing to the care and feeding of all members of the pack. The struggle for supremacy is important to the pack's survival as more than one leader operating under trying living conditions would be ineffectual, but once established, the ruling wolf, or "wolf couple" act as guardians for the entire group. More than one female cares for wolf pups and all pack members will protect each other and defend their territory. The hunting style of this predator is to stalk and strike. Acting

as a team, they will select their prey and proceed to track it until outsmarted or victorious. Wolves have never displayed wanton killing behaviors. They seek prey who are most vulnerable, usually the old or infirm, and hunt for their own survival. In a contained community, such as Isle Royale in upstate Michigan, the balance of nature between the predator and prey is maintained by the wolves weeding out ill or elderly moose. Harsh living conditions, or the intrusion of people upset this balance and causes unnecessary strains on both populations.

What Mr. Pringle would like the reader to have a better understanding of after reading Wolfman is that wolves have suffered tremendously at the hands of hunters and an uninformed, or misinformed public. With a little more effort, the true personality of the wolf can be uncovered and he, or she, can be regarded as less an animal to be feared and persecuted and more an animal who has earned a right to exist on this planet through practicing a non-threatening lifestyle and peaceful co-existence.

Arly Davis
Central Conn. State U., New Britain

Lost Wild America

the Story of Our Extinct and Vanishing Wildlife

by Robert M. McClung (1966 Award Winner)

illus. with drawings by Bob Hines

Linnet Books (1993) Hard cover, 277 pages Age 12 and up

This updated, extremely readable book is both enlightening and disturbing in terms of history, with some bright spots where we have turned near-extinction around and some challenges for the future.

It may be read from cover to cover, while an excellent bibliography and index make it an excellent reference on specific animals, history, problems, and possible solutions. The book opens with a quote from Ota K'te, Chief Standing Bear, Sioux. "Life for the Indian is one of harmony with Nature and the things which surround him. The Indian tried to fit in with Nature and to understand, not to conquer and to rule. We were rewarded by learning much that the white man will never know. Life was a glorious thing, for great contentment comes with the feeling of friendship and kinship with the living things about you. The white man seems to look upon all animals as enemies while we look upon them as friends and benefactors. They were one with the Great Mystery and so were we. We could feel the peace and power of the Great Mystery in the soft grass under our feet and in the blue sky above us," and it closes with a challenge and a hope: "Today, if we are to survive we must rediscover this natural kinship (with nature) and take it to heart. When we succeed - and we must and will - all wildlife too will have a better chance."



Books for Young People

Clambake: A Wampanoag Tradition

by Russell M. Peters, photographs by John Madama. Lerner Publications Co. Minneapolis. 1992.

Twelve year old Steven Peters smiles from a photo of his bedroom on the first page of this book. He is surrounded by childhood mementos—family photos, a stuffed animal, sports trophies. His cat lolls atop the computer monitor on his desk. At first glance, he is a typical pre-teen. But Steven is about to be initiated into the traditions of his ancestors, the Wampanoag people of Mashpee, Massachusetts.

Beautifully written by Steven's grandfather, Russell Peters, *Clambake* shows how modern elders pass on the wisdom of the old ways to the next generation. The book immerses the reader in the preparation for a ceremonial clambake, or appanaug. An appanaug celebrates the change in seasons or honors an important person.

Fast Turtle, as Russell Peters is known to his Wampanoag community, instructs Steven in the ceremony. In gathering rocks for the cooking pit, Steven (also known as Red Mink) and his grandfather sense the presence of their ancestors who searched for the "stone people" in the same spot long before. Each step in the preparation for the appanaug has meaning. Placing the stones in an oval pit reminds them of the "circle of life." Young friends join Steven as he waits for just the right cycle of the tide to gather quahogs (hard shelled clams) and sickissuogs (soft shelled clams). Steven, guided by his proud grandfather, finally places the food on the sizzling rockweed in the cooking pit.

Excitement builds as guests arrive. Slow Turtle, the medicine man of the Wampanoag nation, changes from a denim jacket to ceremonial regalia of buckskin and feathers. He raises his arms to the sun and offers a prayer of thanks and praise to the Great Spirit. He speaks of the value of all living things as the guests form a circle.

Drums and flutes break the silence as Drifting Goose, the supreme sachem, reminds the gathering that this clambake is held in honor of elder Hazel Oakey for her years of service. While the feast cooks, the guests dance to traditional rhythms. The salt smell of rockweed and delicious odor of steaming lobster, clams and corn permeates the air, and Steven has the honor of speaking to the group. "The chowder's ready," he says.

At the end of the feast, Drifting Goose compli-

ments the young people for their efforts, and gives Steven an eagle feather to commemorate his initiation into the traditions of the appanaug. Steven goes home to get a good night's sleep before his baseball game the next day.

The text is natural and informative as the author captures his grandson's transition from childhood to a more adult participation in the life of the tribe. Excellent photos lend intimacy reminiscent of a family album. Photographic character studies and close-ups of the elements of the clambake capture the joy of the community in continuing their traditions and in celebrating their relationship with Mother Earth. I would highly recommend this book as a read-aloud for primary grades or as an engaging introduction to Native American customs for children in grade 3 through middle school.

The title of the series to which this book belongs, We Are Still Here, summarizes the appeal of Clambake. Other books in the six part series are also authored by Native Americans and describe how to keep the old ways alive a modern world. Each book contains a word list, pronunciation guide and suggested reading list and is available in paperback for \$6.95. Based on the excellent quality of *Clambake*, the following should be worth reading:

Kinaalda: A Navajo Girl Grows Up

Sacred Harvest: Ojibway Wild Rice Gathering

Children of Clay: Pueblo Potters

Ininatig's Gift of Sugar: Traditional

Native Sugarmaking, and

Shannon: An Ojibway Dancer

Fran Ludwig

Indiana Jones Explores the Incas

by John Malam

Arcade Publishing, New York

47 pages - color - \$14.95

Middle School level and up

A well organized historical book about pre-Columbian Peru. The fictional character of Indiana Jones narrates the phases of Inca history.

The chapters cover the organization of the Inca Empire, the Spanish conquest and the Empire's final demise. Aptly covered are the chapters on farming and the importance of the potato and corn and the

section on doctors and medicine and the accomplishments in the use of herbal medicines.

The book is illustrated throughout with excellent color photographs. Each chapter includes a "Fact File" which details interesting items on the daily lives of the Incas.

Reviewed by Robert S. Russell

A Legend from Crazy Horse Clan

by Moses Nelson Big Crow

Tipi Press P.O. Box 89

Chamberlain, SD 57325 1987

36 pages, illustrations. \$3.95

A five-year-old girl, Tashia Grupa, a pet racoon and a baby buffalo, all accidently abandoned when a Lakota Village fled from stampeding buffalo, lived together for about ten years. When the buffalo was killed by a Lakota hunter defending Tashia, she was

returned to her family, married and ultimately became the mother of Crazy Horse. The book is rich in Lakota ceremonies and relationships with nature.

10-year-old oral reviewer, Ashley McFalls, also cited as special the use of Lakota words.

This is a story that children will relate to and learn from.



Tipis in Nebraska - sometimes described as the most efficient home ever devised for nomadic people.

Bibliography - Native Americans

Fran Ludwig

GENERAL:

NATIVE PEOPLES OF THE NORTHEAST

*of interest to primary children

Blanke, Shirley and Robinson, Barbara Robinson. From Musketaguid to Concord, Nipmuc culture and artifacts, legends. 1985. *(good photos)

Bonfanti, Leo. Biographies and Legends of the New England Indians. Vol. 1-4. 1970

Carlson, Richard. Rooted Like the Ash Trees: New England Indians and the Land. 1987

Children's Museum. Wamponoag Cookery. 1974. Recipes and comments on old-time food.*

Day, Michael and Whitmore, Carol. Berry Ripe Moon (story of Penobscot boy) From Tide Grass Press, Peaks Island, Maine, 04108. An excellent children's story/coloring book, with teacher's guide.*

Hughes, Donald. American Indian Ecology. 1983
Should be required reading for all! Many generalizations are documented for attitudes toward plants, animals, religion, and ecology held by virtually all Native American tribes.

Knight, James. Blue Feather's Vision. 1982. Informative story line about the dawn of colonial America.*

Lester, Joan and Mc Cann, Judy. Children's Museum. Indians Who Met the Pilgrims. 1974 (teacher's guide to kit). Excellent hands-on unit with comments from modern day Wampanoags. Directions for making cornhusk dolls, pottery, and preparing hides.

Lester, Joan. We're Still Here: Art of Indian New England. Includes modern arts and crafts. 1987. *(Excellent photos of art and people)

Levinson, David and Sherwood, David. Tribal Living Book. 1984. Directions for making rope.

Mass. Educational Television. People of the First Light. Series of 6 videos, 30 min . History and traditions of New England Indians. Includes modern day. Grade 4-adult.

Peters, Russell. The Wampanoags of Mashpee. 1987. Written by a Wampanoag. *(interesting photos)

Robinson, Barbara. Native American Sourcebook: Teacher's Resource on New England Native Peoples. Concord Museum. 1988. Detailed information on and

activities that explore New England native culture from pre-history through the present. EXCELLENT!

Russell, Howard. Indian New England before the Mayflower. Excellent detail on culture, religion. Complete bibliography.

Sewall, Marcia. People of the Breaking Day. 1990. A story of early Wampanoag life. *

Siegel, Beatrice. Indians of the Woodland, Before and After the Pilgrims. *

Tannenbaum, Harold and Beulah. Science of the Early American Indians. 1988. Gr. 4-up.

Weinstein-Farson, Laurie. The Wampanoags. 1989.

Wilbur, Keith. New England Indians. Unique large format with good sketches. Comments on culture, language, tribes. 1978.*

Wolfson, Evelyn. Growing Up Indian. Gr. 3 up.

NATIVE LEGENDS OF NORTH AMERICA:

Baylor, Byrd. And it is Still That Way. Legends told by Arizona Indian children (why dogs sniff; why coyote isn't blue; why dogs don't talk anymore) SHORT STORIES!*

Bernstein, Margery. Coyote Goes Hunting for Fire. funny cartoon pictures, California tribal myth.*

Bruchac, Joseph. Turkey Brother. Seneca folktales. Turtle's race with bear; how bear lost his tail.*

Caduto, Michael and Bruchac, Joseph. Keepers of the Earth: Native American Stories and Environmental Activities for Children. DON'T MISS THIS ONE! (read aloud legends)

de Wit, Dorothy. The Talking Stone. An Anthology of Native American Tales. (by region) Turkey brother; little burnt face (a la Cinderella) Iroquois, Algonquin.

Fritz, Jean. The Good Giants and the Bad Pukwudgies. illustrated by Tomie dePaola. Wonderful tale of Cape Cod. Wampanoag.*

Goble, Paul. The Gift of the Sacred Dog. Spectacular illustrations, large enough for a group (many others by same author) Sioux.*

Grinnell, George. The Whistling Skeleton. American Indian Tales of the Supernatural. Pawnee and Cheyenne.

Hill, Kay. Gloosgap and his Magic. Excellent for storytelling. Tape also available with Rita Moreno. Wabenaki. Gloosgap and his people; how the rabbit lost his tail; Oochigeas and the invisible boy (Cinderella); Gloosgap the trickster; includes pronunciation glossary!

Johnston, Basil. Ojibway Heritage. Lazy bride—maple sugar, lady's slippers, other stories showing attitudes toward plants and animals, cycles of life and death, visions, (legend robin), naming, meaning of stories.

Jones, Hettie. Longhouse Winter. Useful introduction.*



MARKING SOLSTICES AND EQUINOXES

continued from page 38

to come.

"High noon" (the moment when the sun reaches its peak) is easier to fit into a school day. You do not need gold discs or mica floors. The museum in LaPaz, Bolivia has several stone pillars with holes drilled through them. Set up in the right position they would project a beam of light onto a flat surface positioned in front of them. Angles and projections may be the subjects of a physics class, but remember, the people who made these preInca observatories did it with observation, measurement and their BRAINS in an atmosphere of joy and celebration.

The simplest of all winter solstice markers may be made by watching the travels of the sun over a period

of time on a classroom window sill or floor and being prepared to mark that exact moment on the exact day with paint, or a template which may be drawn on paper and then used to cut out a more permanent marker of wood, lucite or other material of your choice.

Why mark the equinoxes and solstices? They were a time of celebration. They said things like: "From today on the number of minutes of daylight will increase." "Spring is here. In "x" number of days we will plant." "What a wonderful, beautiful Earth; today we have more minutes of daylight to celebrate its beauty than any other time." "It is time to prepare for winter (which may be cold or dry)."



Good Reading

The Encyclopedia of Native American Religions

by Arlene Hirschfelder
and Paulette Molin.

Published by Facts-on-File, 1992.

If you've never read an encyclopedia cover to cover, try this one. Written to respond to the "lack of reliable information about Native American religion in conventional reference books," the Encyclopedia of Native American Religions packs a wealth of information and insight into one volume.

We expect encyclopedias to be informative not necessarily insightful. But as I read many of the entries, I saw not only the diversity, richness and dignity of Native American religious life, but also the harmony between Native American religion and nature as it is carried out in ceremonies, teachings and all aspects of life.

Look up "hogan". A portion of the entry states that in the traditional Navajo dwelling, "The posts represent the four sacred mountains Sections of the hogan correspond to the structures of the universe the earthen floor represents Mother Earth and the round roof symbolizes Father Sky. The doorway faces east since the sun's rays and songs and prayers started in the east."

If you want to learn about religious societies, ceremonies and feasts, there are hundreds of entries covering over 100 tribal groups. Part of the entry about the Iroquois Peach Stone Game: "An ancient sacred game of chance and wagering played between two opposing sides in the longhouse. The game is believed to be a religious act that dramatizes the struggle of fruits and crops to grow in spite of natural elements that are not always favorable." The Onondagas, one of the Iroquois peoples, play this game today as part of the midwinter renewal rite.

Look under Revitalization Movements and you will find cross-referenced a number of movements that sprang up in an effort to heal whole communities that were devastated by disease and upheaval brought by European immigration - movements such as the Cherokee Religious Revival of 1811-1813 and the Plains Ghost Dances. These movements were met by the forced removal of the Cherokees westward via the Trail of Tears in 1838 and the Wounded Knee Massacre in December 1890 which followed the second Ghost Dance revival by a few months.

This is also a book about people: prophets, Christian and traditional religious leaders, practition-

ers. Many, such as Handsome Lake and Wovoka, are historical figures. Others, like Peter Catches, a Lakota holy man who has conducted sweatlodges and fasts at sacred Bear Butte in South Dakota, are contemporary leaders.

There are sections on the heyokas or sacred clowns of Plains religion, Hopi ceremonialism, the California mission system, Peyote religion and the Native American Church.

This volume offers a broad perspective of the spiritual lives of the North American indigenous peoples. However, the authors have been careful not to reveal details and information that would interfere with the private nature of Native American religious practices. Previously unpublished information is not included.

Many categories are listed in addition to those mentioned. At first glance, one category - Christian missionaries - seems overwhelming because of the large number of entries on the subject. However, Christianity has had an extensive and ongoing impact on the lives of Native Americans. That impact is reflected in this book.

The authors have done an inspired job of giving readers a view of native peoples' religion as it has informed their lives, created a sacred connection with their natural environment and helped them survive the destruction of many of their traditional lifeways.

This first encyclopedia on Native American religions is a testimony to the power and endurance of Native American spiritual life.

Joanna Clees

Vanishing Arctic: Alaska's National Wildlife Refuge

Narrative: T.H. Watkins

Introduction: Edward Hoagland

Photographs: Wilbur Mills

Art Wolfe

Publisher: Aperture in Association with
the Wilderness Society

This very special book gives the reader a glimpse of the unspoiled Arctic National Wildlife Refuge in Alaska. A small group led by their experienced leader, Jim Campbell, were able to get a real feeling for the area. One of the highlights was the trip on the Hulahula River to the Coastal Plain.

In the twenty-four hours of daylight the members

of the group learned what the mountains, rivers, lakes and streams were really like. They saw the animals and plants in their natural untouched environment. One of the spectacular sights they witnessed was the large number of caribou estimated at more than 200,000 in the herd of the Refuge. These caribou winter in the watershed of the Porcupine River and in Canada's Yukon Territory and move north to the Coastal Plain Calving Area of the North Slope for the summer. Another wonderful sight they witnessed was the Musk Oxen in their natural environment.

Of special interest was the impact of the permafrost on the environment as well as the aufeis, the ancient ice, built up layer by layer along many of the rivers.

There is a brief presentation about the people who have had an impact on the region. From the original people who came across the land bridge from Asia to North America to the scientists whose work led to the establishment of the Arctic Wildlife Range in 1960. This later became the Arctic National Wildlife Refuge.

The book concludes with an important section called "The Problem" which presents significant information on the current struggle between the environment versus oil.

The many large colored photographs with their informative captions are impressive. They add a great deal to the content of the book. Included are two maps which aid the reader in an understanding of the geographical location of the area described.

The book does not have an Index nor a Table of Contents.

Louise Ritsema

An Adventure in the Amazon

The Costeau Society
Simon and Schuster Books for Young Readers 1992

This is an informative book about the Amazon Region especially for middle grade students but would be of interest to older students and adults.

It is divided into three sections:

- Living in the Jungle
- The Smoking Earth
- Problems and Protection

In the book the young reader learns about the river, the people and the plants and animals of the Amazon Basin. The student also learns about some of the problems facing the people of the area. The author points out that when too large an area is cut for wood or used for agriculture, after just a few years

the thin layer of soil hardens and is no longer useable for farming and the forests cannot grow back.

Another threat to the region that is mentioned is the 7,000 miles of road, the narrow Trans-Amazon Highway which brings more people and machines into the region.

To aid the reader throughout the book significant information is printed in larger type. An illustration of this is the following statement: "THE AMAZON: AN IMMENSE ECOSYSTEM IS IN DANGER OF BEING TRAMPLED."

The illustrations are excellent, colored photographs. Many of them are large with some two-page spreads. The captions are informative and done in small type. There is a brief Index

The book ends with a map of South America, which focuses on the Amazon Basin. Basic statistics of the region are included. The following is the concluding statement accompanying the map:

"Peru, Ecuador, Colombia, Bolivia, Brazil, French Guiana, Guyana, Surinam and Venezuela are nations of the Amazon who must make the decisions on how to live with and protect the river and its forests."

Louise Ritsema

Bury My Heart at Wounded Knee

Dee Brown Henry Holt and Co. NY 1970
Owl Edition 1991, Paper, 487 pages
illustrations
with photographs
\$15.55

This book belongs in secondary school and college libraries everywhere. The tragic story of the "Conquering of the West" is a part of history that cannot be ignored. In addition to the text, straight forward, factual, and thought provoking, the pictures and the quotes from the Indian leaders in and of themselves present a story of intelligent men of stature, with a feeling about the environment on which their very lives depended.



The Monument over the mass grave of the Lakota men, women and children, who died during the Wounded Knee massacre of 1890.

As we note the destruction of many of their lives when their culture and the environment on which it depended were destroyed, we should realize and understand conditions on many reservations today. We should also take heed for our own future. We have much to learn!

Arid Waters: Photographs from the Water in the West Project

Goin, Peter, ed. & text by Ellen Manchester, University of Nevada Press, Reno NV 1992

Eight concerned photographers and a photography historian have undertaken a long-term project to use their great artistic skills to document the meaning of water to the arid and semi-arid West, its landscapes and its people. This book presents 59 black-and-white photographs from the many exhibited at the Sheppard Fine Art Gallery at the University of Nevada. Twenty-five pages of text describe the purpose, genesis, and progress of the Project.

Although some of the contributors have been working for many years with concern for the cavalier manhandling of water by many westerners, this book is their first to describe the scope of their collaboration. The Project is timely and deserves appreciative support from all of us concerned about pivotal water in the people/nature balance.

Timely, yes - but not just for the now. The team have collected and are collecting photographs of historical meaning; sometimes they have photographed the same place as much as a century later, in The Rephotographic Survey Project (University of New Mexico Press, 1984). Archives have been established to make past and ongoing photographs available for the long haul of readjustment of people to the water resources of the West.

Particularly noteworthy is the deliberation that has led to the photographers' willingness to give up some of their individual desires in order to meld their talents. They do have their specialties of technique, approach, and sometimes territory, yet they have a philosophy that guides their efforts to communicate via art their story of waters past and waters to come - or not come.

This book should be a model for a "Waters in the East Project", or for smaller territories therein. Can The American Nature Study Society field a comparable team, perhaps cooperating with one or more photographic societies? Who of us will give leadership?

John W. Brainerd

Cherokee Cooklore

For a book on food with roots deep in the Cherokee culture get CHEROKEE COOKLORE, edited by Mary Ulmer Chiltoskey. Illustrated with drawings by G.B. Chiltoskey and 20 step by step photographs of Aggie Ross Lossiah making bean/corn bread. These first 40 pages are followed by 20 pages of recipes collected in the 1940's from women over 60 years old or from some who had learned the old ways from their mothers. Finally, 10 pages describe Cherokee customs about food, list native herbs and their uses, and describe a Cherokee Feast served in Cherokee, N.C.

Order from G.B. and Mary Chiltoskey,
Star Rt. Box 15, Cherokee, NC 28719
Price \$3.00 plus \$1.00 postage

Helen Ross Russell

Enduring Seeds

Native American Agriculture
and Wild Plant Conservation

By Gary Paul Nabhan,
225 Pages, North Point Press, San Francisco 1989
\$18.95

Junior High and up

A story of people and plants and their interdependence, told against a background of newly discovered ancient botanical history of North America. It is a tribute to Native American agriculture. It is a challenge to today's philosophy of agri-business. It is a book hard to put down because of the story and the story-style. It is a good resource not simply for "telling it as it was" but for "telling it as it is" - the dangers to the gene pool, the need for diversity and for appreciation of the impact of the First Nations Peoples of the Americas on the diets of the entire world.

Helen Ross Russell

Native Peoples Quarterly Magazine

A relatively new and exceptionally beautiful magazine featuring art and lifeways of current North American indigenous peoples is NATIVE PEOPLES published in affiliation with the National Museum of the American Indian, Smithsonian Institution, Colorado Springs Fine Arts Center, Crow Canyon Archaeological Center, Eiteljorg Museum, The Heard Museum, The Iroquois Indian Museum, Inter-Tribal Indian Ceremonial Assoc., SW Museum and Southwestern Association on Indian Affairs.

It is published quarterly by Media Concepts Group, Inc., 5333 N 7th St., Suite C224, Phoenix, AZ 85014 - \$18.00 per year.

Calusa Indians - Pine Island, Florida

Helen Ross Russell

When DeSoto sailed into the Gulf of Mexico his chronicler described a village on an island dominated by three pyramids, the largest of which was 60 feet high and supported a temple, a chief's house and a



priest's house, similar to the pyramids of Mexico. When the first Spanish settlers arrived, the Calusa Village was abandoned, quite likely wiped out by European disease.

In the early part of the 20th century a wealthy man purchased the island off shore from Fort Myers, brought in earth moving equipment and levelled the island to make a runway for his airplane.

Today the University of Florida owns the island. The main pyramid is 30 feet high. How much of the base was buried in the levelling? How accurate was DeSoto's chronicler? There are many unanswered questions. But we do know that the Calusas of Pine Island were a shell oriented culture, that they had constructed a canal across their island and traded

with people on the mainland using dugout canoes, that their harvest from the Gulf provided food, utensils, tools and weapons. So far no evidence of corn or other cultivated plants has been discovered. With sea-



weeds, molluscs and fish in abundance they could turn their time and talents to other activities.



Samp in the Stew Pot

continued from page 40

elm seeds	Sp.
hickory nuts	F.
Mayapples	Su.
black walnuts	F.
mulberries	Su.

Activities:

Decide what you are going to combine in the samp pot. Think of flavors that would complement each other. Shop for or collect the ingredients of your choice.

If you use duck or game, it should be cooked the day before. On cooking day one group of preparers can bone and chop it in bite sized pieces.

Put three times as much water in the pot as you use corn meal. Stir. Add other ingredients. Cook about 10 minutes or until no longer liquid. Serve.

If possible, use wooden bowls or quahog shells for containers, mussel shells for spoons. The latter are easily obtained at any seafood restaurant.

Note: Left over samp would have been fried on a flat rock or made into bread by baking in cornhusk or on a rock or potsherd. Food was not thrown out or wasted in Native American Cultures.



Distribution Project Catalog

Native American Authors Distribution Project Catalog, listing more than 360 titles from more than 80 publishers, may be obtained from:

The Greenfield Review Press
2 Middle Grove Road
P.O. Box 306
Greenfield Center, NY 12833

The list includes poetry, fiction, non-fiction, story telling by 196 Native American authors about their experiences, culture, stories & legends. It also includes audio tapes, anthologies, educational resources and journals.

Dugout Canoes

Wherever white birch grew, canoes were made of birch bark but that was an area limited to Northern New England and the St. Lawrence and Great Lake areas. In other places dugout canoes were made. These Wampanoag ones started as white pine logs and were shaped by fire, water, wet clay and scrapers. Farther south, tulip trees whose straight bole and great girth coupled with tough but easily worked wood provided the basic material for dugouts that could be used on rivers, lakes and coastal waters.



A Wampanoag Corn Patch

When the corn is 4" high, pole beans will be planted near each plant, and squash will be planted on the edge of every seventh hill.



Copies of articles from this publication are available from the UMI Article Clearinghouse

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NDAKINA

Northeast Tracking Project

The Northeast Tracking Project is an educational service, that provides people with age-old skills and philosophies. Skills and philosophies that have been carried through the centuries by the indigenous peoples of America. Skills and philosophies that have often been undermined in the past but now play a major role in every one's future, both native and non-native alike.

Achieving this goal properly can come only from pooling a group of people together who have obtained or held onto these various native skills and philosophies. People such as tribal elders, storytellers, skills teachers, musicians, educators, and others who can help continue the important circle of knowledge.

Teachings and performances offered to all ages include:

- 1) The teaching of various wilderness skills such as fire making, shelter, wild edibles, stalking, tracking, tool making, etc.
- 2) Storytelling and traditional philosophies
- 3) Educating people about Native American past and contemporary history
- 4) Contemporary and traditional Music by native American performers

Programs could include one or a combination of the above in:

- 1) One, two, or three day appearances
- 2) Weekend programs
- 3) Week-long camps, including special camps for youths
- 4) Lectures, slide shows, etc, of various lengths.

Payment for our staff Payments will range from 150-450 dollars a day plus expenses for 1-2 teachers or performers. Special rates will apply for multiple days or more than two of our staff.

Special Note about our staff Before joining the North East Tracking Project most of our members have had experience teaching and performing in public and private schools and or with other educational outlets. All of our staff have dedicated their lives to the continuation of the goals of this project within their own native communities and for all those who wish to learn.

The overall goals for the Northeast Tracking project are the following:

- 1) Benefiting the non-native population by providing all ages, especially children, with a Native American perspective about all life and the natural world and by providing skills which allow people to feel more comfortable in the natural world and by reinforcing ideas about the importance of balance and respect for all life.
- 2) Help Native American youths take a positive look at and provide interest in their traditional ways. Instill a sense of pride about their Native American heritage through the reintroduction of the various skills, history, and philosophies taught in this program.
- 3) Provide an accurate understanding of past and contemporary Native American history and issues.
- 4) Create a better understanding and appreciation between Native and non-Native American peoples.

For scheduling or further information contact: James Bruchac, Northeast Tracking Project, P.O. Box 308, Greenfield Center, N.Y. 12833 Phone: (518) 584-1728 Fax(518) 583-9741

If you want to contribute to, work on, or make suggestions for the next journals, contact:

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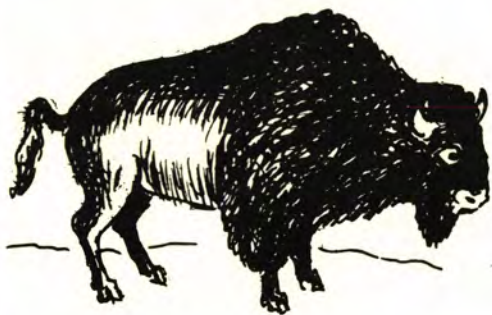
18328

To do book reviews: Give us age level, topics, approach (content material, teaching techniques, etc.).

Helen Ross Russell, 44 College Drive, Jersey City, NJ 07305

Naturalist's Notebook

Plains Indians and Buffalo



According to the Kiowa legend of creation, told by Martin Garretson in The American Bison, "...the Great Spirit descended and said: Here are the Buffalo. They shall be your food and your raiment but on the day you shall see them perish from the face of the Earth, then know that the end of the Kiowa is near - and the Sun set."

The Plains or "Buffalo" Indians depended upon the buffalo for practically all their needs. The meat was eaten raw or cooked, or dried for winter use. Hides were used for tepees and clothing. Woolly robes became sleeping spreads. Rawhide was used to make pots, trunks, and rope. Horns became soap ladles, bones became tools and weapons, and sinews were used for bow strings. Nothing was wasted.



After the Civil War, white settlers invaded the West in great numbers. Everywhere they went, they slaughtered bison - for food, hides, robes, or simply for "sport." "Every buffalo dead is an Indian gone," General Phil Sheridan declared in 1869. By the 1880s the buffalo millions were reduced to a few tiny bands and the Plains Indians were confined to reservations.

A few buffalo survived in Yellowstone Park and in small captive bands. Under protection, these flourished and increased. Today there are many thousands of buffalo in National and state Parks and reserves in the United States, and in private herds as well.



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Printed by American Printing & Typesetting Co., Cortland, NY 13045.

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ISSN0028-0860