PRAIRIE PROJECTIONS

North Branch Prairie Project
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The Human Beings of the North Branch

A New Chapter to an Old, Old Story

By Gerould Wilhelm

(Adapted from a September 17, 1992 speech for the North Branch Prairie Project 15 Year Anniversary Celebration by Susanne Masi.)

To begin the story of the Human Beings of the North Branch, we must go back to a time and place where the ecosystem in which they live had its origin.

Today, most of the land of the North Branch region has been obliterated either by modern agriculture or development and is dominated by a small number of plants adapted to such conditions. What little remains of the natural landscape contains within it those native species adapted to sustain self-replicating ecosystems, wherein our future lies. This is a story of these two floras and the people with whom they co-evolved. It is an old, old story, but it wasn't until recently that we began to rediscover and tell this story.

The co-evolution of civilized man and associated species is believed to have begun about 10,000 years ago, but it did not begin in an ecological void. The principal elements of this association are contained within the genes of those organisms, the collective memory of an even older time.

Long ago the earth's terrain was far less complicated than it is today. About 350 million years ago, the climate of Pangaea, the original unbroken land mass, was subtropical with few vascular plant species growing in a land of shallow seas and low swamps. These gathered in the abundant atmospheric carbon and fixed it through photosynthesis at a rate far greater

Continued on page 12

David Brower Visits Chicago

Last November David Brower, first executive director of the Sierra Club, founder of Friends of the Earth, present Chairman of the Earth Island Institute, environmentalist extraordinaire, gave the keynote address for the Field Museum's opening of the *Messages from the Wilderness* exhibit. While in town, he toured Bunker Hill Prairie with North Branchers after a Sunday workday.

The following is an excerpt from an article entitled *Restoring the Environment; A Conversation with David Brower*. It was published in the December 1992 issue of Chicago Audubon Society's *Compass* newsletter and is reprinted with permission from editor David Cohen. The interviewer and author was *Compass* editor Marilyn Hawkins.

Continued on page 11

Inside this issue:

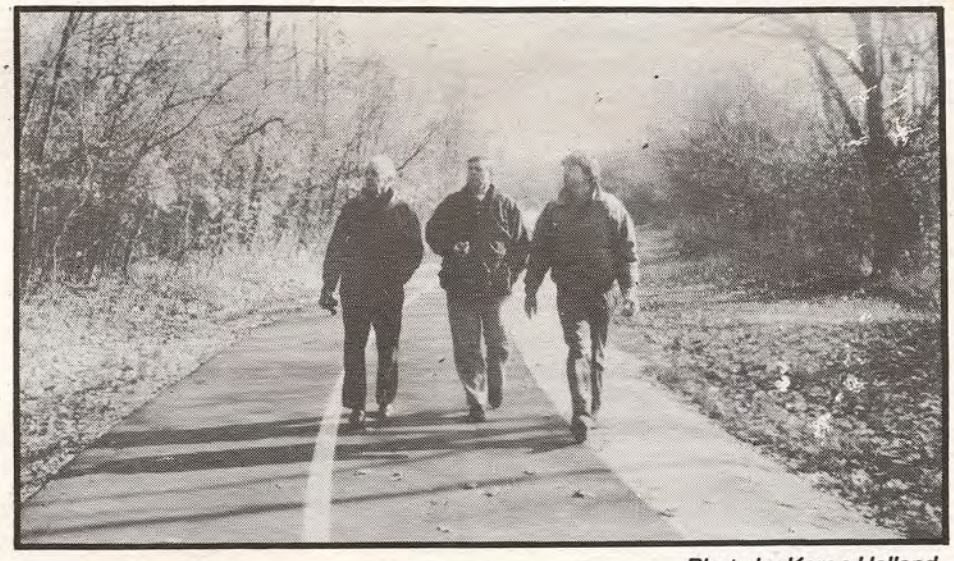


Photo by Karen Holland

David Brower, Gerould Wilhelm, and Stephen Packard at Bunker Hill

✍ *Editorial:* Circles, Seeds, and Bagels

A Reflection on North Branch Traditions

Every North Branch Prairie Project workday begins when people gather in a circle to greet each other, exchange information, and receive instructions on how to do the morning's work. This is how we procreate, bringing new life to the Project. We must hold the attention of newcomers and communicate our goals clearly so our membership will grow. This is a ceremony to celebrate the beginning of the day. We are filled with a sense of mission, eagerness, the expectation of success. Hence, a tradition: the workday circle.

Without seeds we could not continue our work. Every year the North Branch community collects seeds and, in autumn, gathers to process and mix what has been harvested. The seed mixing party is a full and festive day. We work hard; we talk a lot; we count the big garbage bags full of seed at the end of the day and are proud. A second tradition: the precious seed mixing party.

At about 11 a.m. on workdays, everything stops for the bagel break. It's a time to catch your breath, snack a little, and socialize. The site steward provides the bagels. No other food will do. At lunch time, when the weather is pleasant, a group will picnic. In the winter, lunch is at a local restaurant. It's good conversation. It's developing friendships. In December, after the season of seed mixing and burns, the annual harvest feast takes place at the Heartland Cafe. It marks the end of a successful year. In January, the annual potluck dinner is a time to present awards to individual volunteers, conduct important membership business, and eat great food. A third tradition (really several traditions): the bagels.

Traditions give us substance. Traditions signify continuity. Traditions embody the wholeness of our good works and allow the passage of knowledge to the community of volunteers who are first recruited and then held by instilling the value of the work in their very souls. But are our North Branch traditions sufficient?

Conference speakers, articles, and thought-provoking conversations attest to the relationship Indians had to the land, laud the spirituality of Indian culture, and point to our lack of connectedness to nature. The conclusions are generally the same: Our lives are not complete. We should try to become more like our predecessors. Borrowing from Indian traditions will let us reconnect, make us whole.

The traditions of the Indians are part of the history of the land, but they are part of a culture that is not ours. They arose from considerations that are remote from our experience. Four and a half million people did not live in Cook County when the drums were beating and the shamans chanting. People from all over the world did not crowd upon each other, cultures overlapping, a maze of ideas and conflicting behaviors. Each Indian tribe was a nation that lived and died together. Membership was by birth. Traditions grew out of lives that were not separated by distance, by differing philosophies, or by choice.

Laurel Ross demonstrates a seed processing technique to Bob Bluestone.

Photo by Mary Hanlon

Other participants at the Seed Mix Party, November 21, 1992, Emily Oaks Nature Center

Photo by Mary Hanlon

No matter how much we would like to imitate this culture, we cannot recreate the feelings or the context which produced the drum beats. We can appreciate their history. We can say, "This is the way it was." We can understand that drums were part of a dance to make rain, or a prayer for a good harvest, or a hunting ceremonial. But we cannot make these traditions our own.

The understanding of Indian peoples can teach us valuable lessons. They hint at how to better manage the land we are restoring. To some extent we can model ourselves after these people who acted so differently. They were so accutely in tune

Photo by Mary Hanlon

Each ecosystem requires a unique mix of seeds. Neil Peck adds to a storage can designated "wet savanna."

with the ecology and the space required for living because their numbers were few and their tools were simpler. But we need to appreciate the significance of Indian traditions within the context in which they evolved and sustained a homogeneous population.

Traditions have meaning only within the context of a culture. Despite its short history, the North Branch Prairie Project has begun to develop traditions. They are still evolving—like we are. As our sixteenth year begins, the second generation of volunteers is restoring and rebuilding ecosystems.

What can we do to foster North Branch traditions? In a community, traditions develop over time or they won't stick. They won't stick unless they nurture the work of the group. It is a slow process. Traditions emerge from within people who work together toward common goals. New North Branch traditions will come out of our Chicagoland culture, our daily activities, our own lives. What experiences are life-giving, sustaining, good? We want to incorporate them into those activities that are necessary for the survival of the ecosystem and to help us to understand the land and to understand each other.

We need to write and tell more stories about what we do. *Brush Piles* and *Prairie Projections* contain wonderful articles about our work. But historic, scientific, issue-related, and informational essays, while important, are not enough. We need more Jim Cutlers, poets who will touch our hearts with their humor or make us see our surroundings in a new way. We need the stewards to keep journals and share them so that others can write myths and short stories and essays like Richard Carter's youthful remembrances of burning prairies.

And we need musicians like John Haugland and Spencer Rand and the DuoFolk to sing and play. We need songs about us and what we do and how we fail and how we succeed. And sometimes all we need is just music. Workdays are memorable when Dorian Riggen has been there with his flute, playing to the savannas and the prairies and to us.

We need to capture the landscape and the people of the landscape as they are transforming. We need artists like Joel Spears, Carolyn Aronson, and Corasue Nicholas whose visual representations celebrate the beauty of and the changes in the landscape. We need more photographers to capture moments in time, like Mary Hanlon's picture of the 1992 summer interns.

We need to experience our surroundings with all of our senses. We need to move within the landscape as part of it, sensing every tussock, ridge, puff of wind, and blade of grass. Then can we create meaningful traditions in motion, dance.

We need to acknowledge all of our cultural heritages, share prairie and savanna stories, and share laughter. We need to capture our belief in what we do, interpret it, and everywhere preach it, so that others can begin to write and sing and paint and dance as we do.

It will happen that one day we will look at all that we have accomplished and see ourselves as, in Jerry Wilhelm's words, "the Human Beings," the ones who belong to this land. Then our infant traditions will begin to express our collective restoration hopes to future generations.

By Karen Holland

Photo by Mary Hanlon

Volunteers at the annual potluck share stories, ideas, and fun.

Early Life on the Farm at Somme

Report on an Interview with Louis Werhane

By Tor Faegre

Louis Werhane is a retired farmer whose grandfather once owned the land to the west of Waukegan Road and north of Dundee Road which we know as Somme Prairie Grove. The Werhane family farmed this land from the time they settled there in 1853 until 1926 when the Cook County Forest Preserve District bought it. Now 80 years old, Werhane was interviewed by North Branch volunteers Steve Packard, Karen Holland, Tom Murphy, Laurel Ross, Brian Seinfeld, and Joe Smith. They sought clues to the history of Somme Prairie Grove that would reveal its original character. They wanted to know how human intervention had altered the landscape.

In doing environmental restoration, we try to discover what the land was like in pre-settlement times—which parts were prairie, which were savanna, and which were woodland. To get back to this time we have to play archaeologist and peel back the layers that have built up over the "original" landscape. From settlement times until the Forest Preserve District bought it, farming practices changed the land—by grazing, mowing, plowing, and setting drainage tile on the open lands and by cutting down the oaks in the savannas. In Louis Werhane we have one who can tell us something about how the hand of man has altered this land.

The original settler along the West Fork of the North Branch of the Chicago River was a fellow named John Indian Clark. According to Werhane, Clark was the first white man to live in the area, and his job was to carry the mail on horseback from Milwaukee to Chicago. Werhane's great grandfather bought the property from Clark in 1853. The going price of land purchased from the government was $1.25 an acre. The Werhanes had moved to the United States from Germany in 1848 (a time of political upheaval in Germany which resulted in a great exodus to America). Louis recounts how his grandfather had 240 acres, most of which are included in Somme Woods today. Of this, his father got 60 acres of the best farm land. . . "because he was the oldest, he got what he wanted to pick. Uncle Bill got a long strip from Middle Branch Creek all the way to the railroad tracks."

Although the Werhanes farmed for four generations, Louis was not one to emphasize the virtues of farm life. He returned again and again to the difficulties:

Grandpa had 25, 30 head of cows. I mean this was when they milked all these "buffaloes" by hand. My uncle, when he got married, he said, "one thing I know I'm not going to have, and that's a damn milk cow, because you have to get up at 5 o'clock in the morning."

Louis saw the change from horse-powered to gasoline-powered farming and he readily embraced it. Mechanization was the force that saved farm life for Louis when he began to have doubts about continuing. He says that he would have left farming if it were not for the introduction of the tractor, specifically the rubber-tired tractor:

If it weren't for Harvey Firestone, I don't know if I'd be here today. It sounds funny, but Harvey Firestone was the guy who put farms on rubber. I had this gas station up at Phil Johnson's, October '33 to October '36—well, let's go back to 1919. Right in here my uncle bought a Fordson tractor, and I can still see my father sitting at home saying, "If they ever put one of those on rubber tires I'll buy one." They didn't even have trucks on rubber tires then, and here my old man is talking about a tractor. Well, lo-and-behold, his team of horses began to get pretty bad in '35, and '35 was the year they first started to put rubber tires on tractors. In the spring of '35 I got an advertisement from the Firestone Experimental Farm in Akron. Everything had tires—wagons, rakes, wheelbarrows, everything. My father found out he could get a rubber-tired tractor at International Harvester, and he came to me and said, "If I bought a rubber-tired tractor will you run it? I'll get Art to run the gas station." So we had the first rubber-tired tractor in the area.

Werhane's mother had her own part in farm life. It was she who turned their vegetable garden produce into a cash crop:

In 1919, my mother and a neighbor decided they were going to sell pickles and corn on Labor Day out on Waukegan Road. My dad, he sits there and looks out at the women and laughs and laughs. He doesn't think they'll sell anything! But when they get done at the end of the day they had seven bucks. My old man quit laughing right there, 'cause that was a way to make a buck! In '22, we started the vegetable stand for good. This was the first vegetable stand north of Chicago.

The real purpose of the interview was to discover what the land was like before settlement and how it was altered by farming. Flat midwestern farms had vast wetlands, often considered useless by the farmer unless they could be drained. When drained, the wetlands were often the most fertile land. As Louis describes it, the lower areas had deep black earth. They dug test holes to discover the depth of the topsoil and in one spot, he says, they found three feet of rich dirt. But

Louis Werhane (standing, right) describes Somme as he knew it to Steve Packard, Joe Smith, and Laurel Ross. *Photo by Karen Holland*

these lower areas were usually too wet to plow, so they put in tile to drain them. It was a lot of work in those days to dig the ditches by hand, but it was worth it,Werhane says. "My dad was one of the first ones to install tile. Every time he had a buck he would put some in."

There is a special area in the Somme Nature Preserve, west of the Somme Prairie Grove that was the Werhane's land and is virgin prairie and home to several rare plants. We wondered how this particular place managed to escape the plow. Steve Packard pointed to a map and asked Louis Werhane what he knew of the site.

S.P.: We have one of the finest little pieces of prairie in the whole state right here and we have tried to figure out why it wasn't farmed.

L.W.: They probably did.

S.P.: We know they didn't, because it's got virgin soil and there are very rare plants that only grow where it's never been plowed. Why did they leave that out?

L.W.: I can't figure it out.

So the reason why this pristine prairie was left alone remains a mystery.

Hoping to learn what the oak savanna was like during the period it was cultivated, Steve Packard asked how the woods figured in the life of the farm:

L.W.: I will tell you what the woods was. The woods was a pasture for cows—they had just as much grass in the woods as they did in the prairie.

S.P.: Do you know how far back they burned it?

L.W.: Well, they burned it every year.

S.P.: Did they burn the grasses?

L.W.: No, they didn't burn the grasses. There wasn't any grasses to burn; the cows took care of that.

Next, Steve Packard mentioned a pond on the land east of Waukegan Road, and Mr. Werhane remembered it well.

My pet cow died in that pond. It's all brush in there now. Six cats couldn't find one rat in there. There was one place in here where Grandpa had about four acres and that was hog pasture with oak trees. He fed 25 hogs and part of their feed was acorns. They had rings in their noses so they couldn't dig out the roots.

When the Forest Preserve District bought the land from the Werhanes in 1926, they paid $400 an acre. Louis said that people were delighted to sell land at that price, especially when it wasn't the best farm land like the woods and marshes. Werhane was asked what he thought of the Forest Preserve.

I always thought the Forest Preserve was supposed to preserve the woods the way they used to be, so someday somebody would know what they used to be like. My father would have tears in his eyes to see it. Unless you were a farmer, you wouldn't know what Canada thistles were. The farmers would cut the thistles [out of the fields]. When the Forest Preserve came in, there the thistles just got ripe and blew and everybody got 'em. We were northeast of this thing and here would come the Canada thistles. I'm not kidding!

North Branchers can appreciate this, as thistles remain a big problem in some areas.

But thistles were not the only problem. Even the Forest Preserve District's attempt at reforestation met with difficulties. They decided that some of the old fields should be wooded and contracted to have them planted with trees. Werhane did not think much of the tree planting. The trees were thin, ". . . like a lead pencil. I betcha' by spring there weren't twenty trees left—the rabbits ate them all." Can we say that the rabbits were the first North Branch volunteers? In any case, they are still out there eating away at the young trees, doing their bit to help bring back the prairie.

It is rare these days to find one such as Louis Werhane, who is a descendent of the original European settlers and is still living in the same community and able to tell how this land was settled. We are indebted to Louis for sharing his story, and especially for telling it with great humor.

FOCUS

EMERGENCY!

by Adria Goodson

September 23, 1992: Two to three acres of red oaks were cut down at Linne Woods to make way for buildings for construction workers. The construction workers will be handling the rock disposal for the North Branch of the Deep Tunnel Project (TARP). No attempt was made to mitigate the damage to the remaining oaks. Wood chips were strewn throughout the remaining oaks and onto Railroad Prairie. Severe erosion will occur without immediate action.

It was too late to prevent damage to the oaks at Linne Woods. Discussions with the Metropolitan Water Reclamation District, Illinois Environmental Protection Agency, and TARP contractors, however, produced the following results: a fence will be installed between Railroad Prairie and the construction area, mitigation to prevent erosion, particularly along the river, will be undertaken, and workers now understand that caution must be used when constructing near natural areas.

Emergencies like this one severely threaten the successful restoration work of the North Branch Prairie Project. Therefore, the groundwork for an Emergency Response Group and a Proactive Good Neighbor Group is being laid by a planning committee chaired by Chris Urban. Both teams will report to existing work groups.

The Emergency Response Group will consist of 3 to 5 people who can move quickly to address emergency situations as they occur and prevent any additional damage. The members will draw on past experiences and current knowledge to solve problems.

The Proactive Good Neighbor Group will consist of long range planners whose goal will be to prevent emergencies by such means as doing public outreach to increase awareness. This group will also draw on past experiences to forestall recurring emergencies like vehicular damage at Bunker Hill and garbage dumping at restoration sites.

By developing these two units we can continue to restore and preserve prairie and savanna sites which might otherwise be irreparably damaged. If you would like be a part of these groups, please call Chris Urban, (312) 871-2827, for more information.

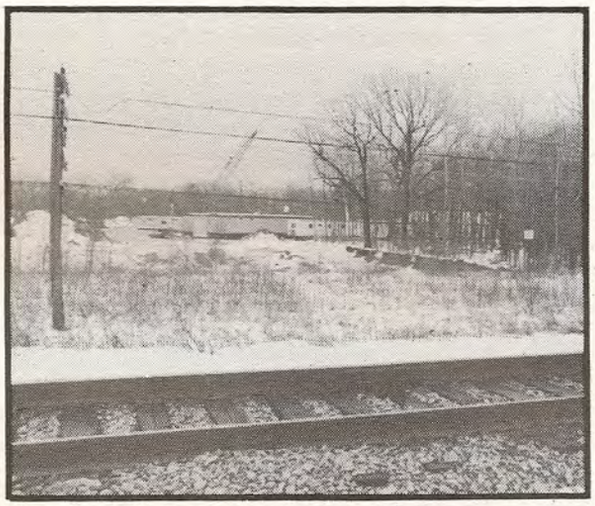
First Conservation Congress in Illinois Convenes

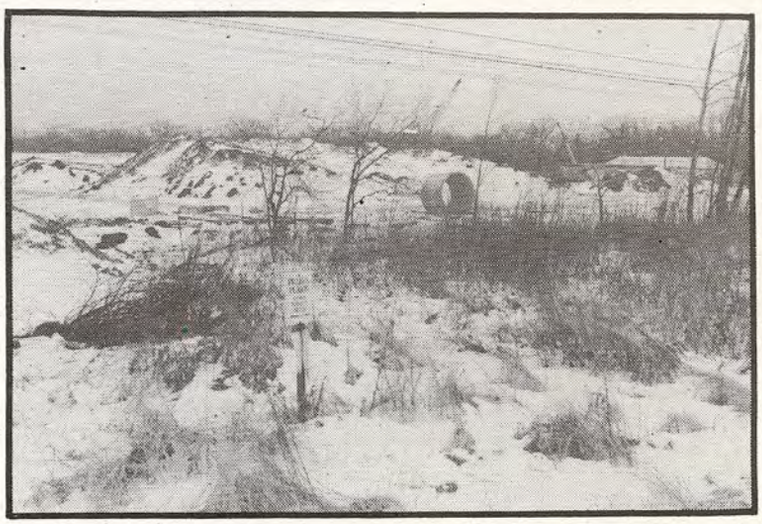
Prairie Steward Is Delegate

by Rick Gabriel

Director of the Illinois field office Al Pyott and Volunteer Stewardship Network volunteer Rick Gabriel represented The Nature Conservancy as delegates to the Illinois Department of Conservation's (I.D.O.C.) first Conservation Congress. One hundred eighteen delegates representing environmental, hunting, fishing, boating, forest and park districts, and other conservation and recreation groups attended the three day meeting in Springfield on February 5, 6, and 7.

The Conservation Congress is an outgrowth of The Governor's Conference on New Horizons for Conservation, Parks and Recreation initiated by Governor Edgar. It is intended to be ongoing,





Photos by Mary Hanlon

Deep Tunnel (TARP) construction at Linne Woods and Railroad Prairie

meeting every year or two. The goals are:

1) to find common ground and build parnerships between the various constituencies;

2) to build a stronger legislative constituency for I.D.O.C. and for conservation issues in general; and,

3) to provide input to I.D.O.C. for its strategic planning process and to the state legislature and the governor.

The I.D.O.C. invited more than 1,200 individuals representing 350 groups to participate in five regional caucuses. Sixty delegates were elected from within the five regions. Conservation Director Brent Manning invited an additional 58 statewide groups to send delegates. Regional caucus representatives met to raise issues, establish priorities and elect delegates to represent their regions at the Conservation Congress.

Our Region II includes McHenry, Lake, Kane, Cook, Dupage, Kendall, Will, Grundy, and Kankakee counties. Three groups with which we are affiliated have representatives. Rick Gabriel, steward at Berkeley Prairie, is representing The Nature Conservancy. George Birmingham of the DesPlaines/Salt Creek Volunteers Coordinating Committee is alternate. June Keibler, Kane County Natural Areas Volunteers Regional Administrator, is representing the Volunteer Stewardship Network. Her alternate is Jerry Kolar, a northern Lake county regional steward. Bill Zima, North Branch Prairie Project volunteer represents NBPP with Lisa Deutsch, TNC Prairie University coordinator, as alternate. Because of the short notice, it was a scramble to get just these three groups represented. For the future, I.D.O.C. has agreed that the VSN will send representatives on a county by county basis.

We must have greater representation to assure that issues important to the Volunteer Stewardship Network will be high on the Department of Conservation's priority list. Because of their greater numbers, it appeared that the hunting and fishing groups would dominate the agenda. Historically they have received funding and attention from the department. However, during the caucuses it became apparent that we all have a great deal in common and a great deal to lose if the I.D.O.C. budget is reduced. **Habitat acquisition and protection was voted the number one priority for Region II and was a common concern for most groups present.**

The Conservation Congress is an important opportunity for expanding support for the programs that benefit our work. Many thanks to Laurel Ross, Northern Illinois Field Representative for The Nature Conservancy, for her guidance and encouragement. For more information or to get involved, call Rick Gabriel at 312-472-0441.

"Plant Communities and People Communities" A Lecture by Charles Lewis

by Laurel Ross

Last November 12 the work of the North Branch Prairie Project and the Volunteer Stewardship Network were featured in a lecture which filled the Cudahy Auditorium of the Morton Arboretum beyond capacity. This talk by Charles Lewis, Research Fellow, of the Arboretum was titled "Plant Communities and People Communities." It explored the significance of human interactions with plants and coincided with Mr. Lewis' retirement from the Arboretum and the publication of his book *Green Nature/ Human Nature*.

"Tonight we will be searching for connections between people communities and the plant communities they nurture," he began. "The connections, not physical but mental, are hinted when we consider how experiencing plants or green nature affects our inner self . . . we will differentiate between two nodes of experiencing plants, reviewing what has been learned through research when we are observers of the landscape and contrasting it with the lack of research pertaining to human experiences when one participates physically, taking on the role of planter and nurturer."

After reviewing a number of avenues of participation he concluded with a description of the Volunteer Stewardship Network through which "the nurturing of people communities for plant communities reaches its fullest expression."

It was an evening when North Branchers present (there were at least seven of us there) could be proud of our accomplishments, our role in history secure.

Lewis quoted William Jordan, "These people (the volunteers) are engaged in a relationship with nature that is active, participatory and beneficial . . . it is nothing less than a ritual - I am tempted to say a sacrament - of reentry and reconciliation with nature."

The lecture preceded a two day symposium which had as its purpose to assess what is currently known about the active involvement of people with plant communities and to brainstorm questions and issues relevant to study at the individual and community levels in order to develop an agenda for research and action.

This extraordinary symposium included as participants such research luminaries as Rachel and Steve Kaplan of the University of Michigan, Roger Ulrich of Texas A&M, and Robert Sommer of the University of California. In addition, there were practitioners such as myself, Suzanne Malec, director of the community gardening program of the Chicago Botanic Garden. The goal was to develop a dialog that will advance research, planning and management.

Lewis summarized, "Results of this research may show us a way through a more intimate relationship with nature, to create a more humane environment in which to work, live and play."

North Branch Amphibians

By Ellin Beltz

Introduction

Reptiles and amphibians are two dissimilar classes of vertebrate animals usually lumped together because nobody was interested in them. Fish, birds and mammals were somehow more acceptable, more exciting, and more studied. Within the last 100 years, with a lessening of all sorts of prejudices, the study of reptiles and amphibians has become an -ology of its own, herpetology. The first textbook of herpetology was published in 1963, in Russia; the first English language textbook in 1972. However, the field identification guide for reptiles and amphibians using a live-mark system, similar to the Roger Tory Peterson method for birds, was first published in 1958. In 1991, the third edition was prepared by Roger Conant (the original author) and Joseph T. Collins of the University of Kansas Museum of Natural History. It is book 12 of the Peterson Field Guide Series and in my opinion is the only reptile and amphibian field guide on the market today for North America worth buying.

A field guide is a necessity for anyone interested in the accurate identification and natural history of specific animals. Can you tell at a glance the difference between a northern leopard frog and a pickeral frog? I can't, my husband (Ken Mierzwa) can, but then he doesn't know one warbler from another and neither do I. Even after a lifelong interest in natural history I would not presume to identify plants, birds, fish, some mammals and a few reptiles and amphibians without the appropriate book, so I highly recommend field guides to everyone.

Another important reason to get a field guide is to be up to date on the scientific names of organisms. Some people are not comfortable with psuedo-Latin, and only choose to use common names. That's o.k., but please realize that - like birds - reptiles and amphibians have standard common names. Please don't call Northern Leopard Frogs by any other name if you don't use the Latinate binomial. Incidentally, the first work of the scientific name is always supposed to be a noun and is referred to as the genus name or the generic name. The second word is an adjective modifying that noun and is called the specific name. The system works the same way as your last name identifies those who are related to you and identifies individuals by different first names. Just think of a teacher doing the roll call on the first day of school: "Smith, Mary - Smith, Catherine: are you two related?" That's how scientific names work. *Bufo americanus* and *Bufo woodhousii* are so similar that they're in the same genus, but different enough to be considered separate species. Unfortunately, the common names don't work like that. Just another reason for learning the Latinates, eh? Pronounce them like Italian food, and everyone in herpetology will understand you fine.

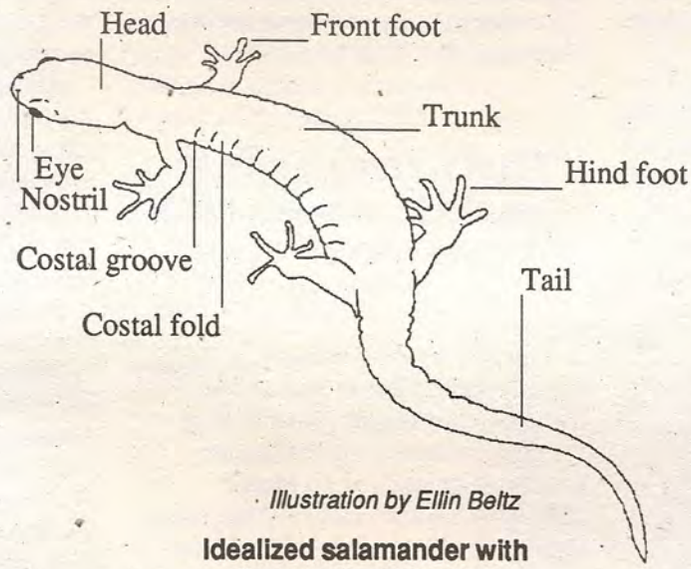


Illustration by Ellin Beltz

Idealized salamander with diagnostic characters

With that in mind, here is a list of amphibians which may be found at the North Branch:

The List

Blue spotted salamanders, *Ambystoma laterale*

As the name suggests, these have delicate blue spots on the sides (*"laterale"*) and back of their slimy little bodies. They live underground most of the year and can be found under logs in spring (sometimes in fall). Adults arrive at temporary ponds just as the ice is melting. Males do an intricate and stylized dance to get the females to accept a packet of sperm. The females lay eggs attached to leaves and other detritus in the pond. Salamander larvae are odd little creatures. Soon after hatching they get all four legs and have external gills. They are nearly transparent and eat daphnia (water fleas) and other small invertebrates. At about 1 3/4" (42 mm) in length, they transform and leave the ponds to live like adults.

Tiger salamanders, *Ambystoma tigrinum*

These are large (to 12 inch), long-lived (to 11 years) hefty salamanders, slimy as above, but with yellow spots. Tigers (*"tigrinum"*) are often confused with the spotted salamander (*Ambystoma maculatum*) but the latter has its spots in rows, not all over the back. Use your field guide for all yellow-spotted salamanders until you can see the difference at a glance. Their lifestyle is similar to that of the blue-spotted salamanders, but the larvae are larger at transformation. Incidentally, the genus name "*Ambystoma*" means "to cram into the mouth," and is an accurate description of the feeding habits of these animals.

American toads, *Bufo americanus*

American toads are easily recognizable, warty little fellows, with golden eyes and a walk that reminds me of oak leaves blowing. They are the only toad in this area, so you don't have to worry about who is who. However, if you go even a short distance from Chicago, you will need your field guide, because there are other species of *Bufo* that occur in the same places as American toads, and look fairly similar. Toads breed in just about any body of water: ponds, buckets, tire ruts, pool covers, dog bowls, etc. *"Bufo"* means "clown" in Latin and apparently refers to the Romans' opinion of their toads. It is where we get the word "buffoon." As for *"americanus"* I suppose that is named for Vespucci, too.

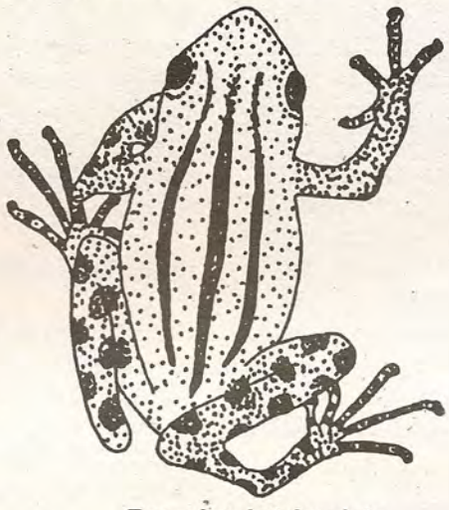
The song of the male is a melodic trill. You can tell boy toads from girl toads by squeezing their "armpits" gently. If it is a boy, it will grunt at you. This is because of aggressive breeding techniques common to many frogs and toads. The males will clasp just about anything that is toad-sized and toad-shaped and try to mate with it. If what it has grabbed is a fellow male toad, the one on the bottom will grunt. Then the one on top looks a little confused, but lets go! Toad eggs hatch into little apostrophe-sized black tadpoles that do the frog thing and swim without legs, then get hind legs, then front legs, then metamorphose into toads. Newly transformed toads are about 1/2 inch long. When walking through the grass, they are about the size of wolf spiders, and move in a similar fashion.

Pseudacris crucifer
Spring peeper

Illustration by Ellin Beltz

Western chorus frog, *Pseudacris triseriata*

These are the noisy little frogs heard early in the spring in many small vernal ponds, ditches and other transitory ponds. Individually, males sound like the noise made by rubbing a finger over the small tines on a cheap plastic hair comb ("ge-ee-eik"). Combined, a group of western chorus frogs reminds me of sleigh bells. They are visually distinguished from the rest of the frogs on this list by the three brownish lines running down their otherwise tan-colored backs. This is why the Latin name is *"triseriata,"* which means "three-lined." See, Latin's not so tough, huh? *"Pseudacris"* means "false-shrill one" and is in reference to the fact that this genus is similar to a genus called *"Acris."* No, none of them are called green *Acris*, although some of them are very green.



Pseudacris triseriata
Western chorus frog

Illustration by Ellin Beltz

Northern leopard frog, *Rana pipiens*

These are larger frogs (to about 4" or 10cm) which have a special frog anatomical feature known as "dorsolateral folds" which are extra folds of skin that run like parallel racing stripes from their eyes to their rear ends. Someone once told me that this extra skin comes into play when they leap, which they do superbly, and usually just as you've gotten your first glimpse. It has been said that the tastier you are, the farther you jump. I suspect these frogs are very tasty. They are called leopard frogs because they have spots. In this species, the spots are rounded and have light borders and are scattered in two or three irregular rows between the dorsolateral folds. Near Chicago are other species of the genus *Rana* ("frog" in Latin, how creative!), so a field guide is really a necessity to be sure that the frog you think you saw is what you're calling it.

The males in this species make a call that is described as a deep, rattling snore, with occasional clucking grunts. What surprised me when I heard it was how quiet it was compared to the noisy little *Pseudacris* I was accustomed to hearing. By the way, *"pipiens"* is a misnomer, applied by the namer because he heard these and spring peepers (which do *"pipiens"*) and since the leopard frogs were so large and the peepers were so small, Mr. Schreiber convinced himself the loudest call went with the bigger frog. Anyway, that was back in 1792, so we can allow for his lack of field observation. Herpetology (an as yet-unnamed science) was in those days a pursuit of the unappreciated in malarial, mosquito-infested swamps and wetlands, without the benefits of antibiotics or insect spray. Sometimes, we forget how far we've come.

Leopard frogs also spend a goodly portion of the summer away from water. I was on a nature walk one time where the guide got all excited because he thought he was seeing meadow jumping mice and they turned out to be *Rana pipiens*. At least he was right to Phylum.

Bullfrogs and greenfrogs, *Rana catesbeiana and Rana clamitans melanota*

These two species are so often confused that I'd highly recommend herpetologists not to identify any unless in hand. After the first few, you'll begin to see the field characters, and soon you'll be identifying them as they plop in the pond.

Continued on page 10

Amphibians, *from page 9*

Some people say "bullfrogs are bigger" and identify anything over about 3" (7.6 cm) with no pattern as bullfrogs. So far so good, but how do they tell a large green frog from a small bullfrog? Here's the secret... Bullfrogs don't have dorsolateral folds, greenfrogs do! Otherwise, the greenfrog just looks like a downsized bullfrog. Both species have prominent tympana (which is the big eardrum just behind their eyes), two front feet, two very webbed back feet, and come in all the same fashion nature colors: green, gray, brown and black. Bullfrogs are sometimes found in larger bodies of water and are more likely to be in rivers than greenfrogs.

Conclusion

If you find any amphibians that aren't on this list, photograph it if you can and contact Tom Anton, who is doing a herp survey on North Branch sites (708-869-8219). When you find amphibians that are on this list, please write down the date, time, temperature (approximate is o.k.), species, and precisely where you were. Then pass this info along to Tom, too. If you find reptiles and amphibians within the Chicago region, outside of the North Branch, and want to report your findings, please send copies of your field data to me at: 1647 North Clybourn Avenue, Chicago, IL 60614-5507. Photographs (or tape recordings of frogs) are preferred to actual specimens.

Acknowledgements

Thanks to: Kenneth S. Mierzwa, Thomas G. Anton, and Robert Sliwinski for all their help; and to Karen Holland, editor of this fine publication for giving my warped sense of humor an outlet. It is very rare that I get to enjoy writing, usually what I have to do must be dry, dry, boring stuff that is as little fun to read as it was to write.

Suggested Readings:

Conant, Roger and Joseph T. Collins. 1991. *Field Guide to Reptiles and Amphibians of Eastern and Central North America.* Third edition. Houghton Mifflin Co., Boston, MA. 450+xviii. (About $25.00 hardcover, $15.00 paper)

Smith, Philip W. The Amphibians and Reptiles of Illinois. *The Illinois Natural History Survey,* 607 East Peabody Drive, Champaign, IL 61820. Article 1, Volume 28, November 1961. Available as a bound reprint for $5.00 the last time I checked. The nomenclature is out of date and you will need Conant and Collins too, but it is the only publication on Illinois herpetofauna.

Ellen Beltz has written extensively for CHS's monthly bulletin and other herpetological journals. She contributes six columns a year to the color magazine of Herpetology, Vivarium. She is a student of biology at Northeastern Illinois University where she also edits the student newspaper. This is Ellin's first contribution to Prairie Projections. The sequel to this article will appear in our next issue.

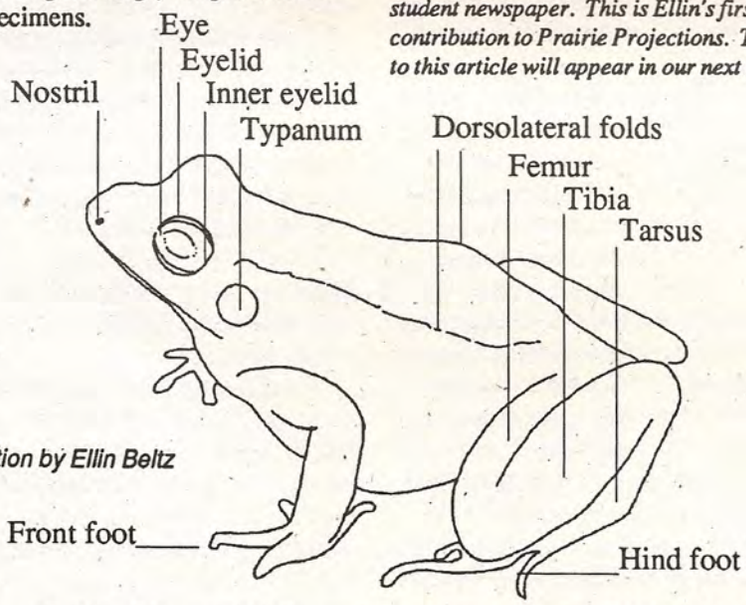


Illustration by Ellin Beltz

Idealized frog with diagnostic characteristics highlighted

Through the weeks of deep snow
we walked above the ground
on fallen sky, as though we did
not come out of root and leaf, as though
we had only air and weather
for our difficult home.
But now
as March warms, and the rivulets
run like birdsong on the slopes,
and the branches of light sing in the hills,
slowly we return to earth.

Wendell Berry

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 right as ourselves, to inhabit this land.

Sitting Bull

Brower, *from page 1*

Compass: I have some concerns about restoration. How effective do you think it really can be? Is the technology advanced enough to really recreate a wetland?

David Brower: I think it is. Of course, you can't recreate everything that was there in the first place, but you can recreate as much as you can find out about when you think about all the things that are still flying in the air to recolonize, the spores to start with, you can begin to settle in and start a new ecosystem. One of the important things is to give nature a chance to heal. Sometimes that means standing back, sometimes it means you've got to help. Maybe it takes some arrogance to think we can help at all, but I think restoration can work. There is so much that we have spoiled, at least we can get our own interference out of the way.

Compass: I guess my concern, particularly with wetlands, is that we don't trade natural wetlands for artificial wetlands. What do you say to those who want to make these kinds of deals?

Brower: I say, if you want to build on this wetland and give us another, build the other first and build it so well that you want to build your stuff over it. That's my comment.

It's a derivative of what I used to say about the Grand Canyon. You can build all the dams you want to in the Grand Canyon, provided you build a separate and equal Grand Canyon somewhere else first.

Compass: I'd like you to comment about the problems we've had here in Chicago opposing a third airport at Lake Calumet, on some choice wetlands and prairie land.

Brower: I'm very against that airport. I know there has been some talk of wanting a national park there. I'm not against a try for it. If you can make a go of it, fine. Possible, though, what you need is a biosphere reserve. Not enough people know what a biosphere reserve is and what it can do, and we've got to let more people know about that.

Compass: Could you expand on that?

Brower: The biosphere reserve idea came out of the United Nations Decade on Man and the Environment, and they're all over the world. For example, in what was the Soviet Union, biosphere reserves have the maximum protection. They don't even want you traveling there unless you are a scientist. But that's not what we do here. A biosphere reserve area in the Adirondacks, for example, also includes cities and factories. The idea is that you zone an area, and you try not to increase any further the encroachment on biological diversity.

". . . before you trash anything else, go back and see what you can do to fix what you've trashed already. That's restoration."

The biosphere reserves can include private property as well as city, county, state, fed, any agency, so long as certain performance standards are adhered to. The first criterion is that you may not, in your brief tenancy on this piece of earth, diminish the biological diversity of it, and I don't mean keep one of each for the Ark. Keep the populations viable populations.

I'm trying to get legislation written and enacted for a national biosphere reserve system. We didn't care much about national parks until we got the national park system. We had the parks for 60 years before we got the system, and the system began to show the power you need, the critical mass, so that we could make the national parks a more permanent part of our future. You need the same thing with the biosphere reserves.

If we get that, and we begin to build these systems, then we move away from the current philosophy of what we ought to save and move toward the philosophy of what else do we want to trash. And I think if we ask people how many places do they want to trash, you'll find they come up with a very short list. If you come up with a list of the places you want to save, that means that everything else is up for grabs. That can't be any more - we've done enough of that.

Compass: So you're proposing people turn their whole point of view around.

Brower: Yes, turn it around. What else do you want to trash? And before you trash anything else, go back and see what you can do to fix what you've trashed already. That's restoration. That's where you can put your energy. Anybody can trash. Can you fix it?

If you want to restore, you want clues about what you want to restore to. What's the nearest you can come. Like they say, when you're lost, you go back to the last known landmark. We don't have to go back to prehistory. We go back to when we last knew what was there and try to rebuild that and then let those forms succeed. Succession goes on. Evolution goes on. It didn't stop. Creation is still going on.

There are lots of restorations going on in various parts of the world, but we don't know enough about them. We've got to get a restoration central operating. Once we start restoring more places, we'll get a new value of what the environment is worth. If you start pricing it according to what it takes to build back what you've destroyed, that's going to be a big number. Otherwise they don't put in any number at all, or hardly at all.

Suggested Readings:

Encounters with the Archdruid by John McPhee
For Earth's Sake by David Brower
Work in Progress by David Brower

Human Beings, *from page 1*

than could be unfixed by decomposition. It was as if nature was doting upon those early land plants. They accumulated carbon in excessive amounts and grew until they fell over of their own weight, only partially decaying, destined to form the massive coal beds characterized by the Carboniferous period. About 125 million years ago, the concentration of atmospheric carbon had fallen to near the level at which carbon fixation/ decomposition rates were about equal, and the formation of coal essentially ceased.

As carbon was being mined from the atmosphere, contributing to the cooling of the earth, the continents were being formed by the breakup of Pangaea. An extensive system of mountain ranges began to form. The Rockies burgeoned. The continents drifted apart and further north. As land masses shifted, rippled, buckled, and broke into pieces, potential habitats became more numerous. Temperate climates began to become superimposed on high plains. The world, once characterized by large, woody, evergreen plants growing in a warm, humid, carbon dioxide-rich environment, was giving over in many areas to deciduous trees, with perennial and annual associates adapted to drier climate mediated by a change of seasons. A new diversity of plants and animals began to inhabit the developing arrays of nooks, crannies, and climates. As dry air developed and complex weather patterns evolved, lightning began to occur when there was no rain. Scarcely 10 million years ago, the early grazing animals and grass-like plants were beginning to develop.

The new grasses and sedges had two key features. Their growing tissues were at the base of the plant rather than at the top, which adapted them to grazing. Their dry autumnal foliage provided an excellent fuel through which spontaneous lightning fires could race. By about two million years ago, it is likely that the vegetation in whole regions of the earth was subject to regular fires.

Carbon was still being fixed annually both above and below the ground; it could not quickly decompose in the drier climate. That which the grazing animals did not unfix through digestion was frequently unfixed by fire. The carbon fixed in the deep fibrous root systems either remained unoxidized or was unfixed through microbic digestion, contributing to the development of organic-rich soils. For the first time in over 100 million years, atmospheric carbon was being extracted in net amounts.

By the advent of the Ice Age, the co-evolution of human beings, grasslands, and grazing animals was well underway, and a new pattern of carbon cycling was established. Large fertile plains and bottomlands were created in the wake of the last glacier. The soils were nutrient-rich and the grassland quickly re-inhabited recently glaciated regions. These lands contained all the elements necessary to sustain early Human Beings: cereals and huge herds of slow-moving grazers, replete with their big bones, hides, furs, and meat. The Human Being began to manage the land to optimize these resources, and began to become a profound factor in the evolution of life on earth. The well-being of the Earth and the Human became inextricably linked in what Father Thomas Berry has called the "Ecozoic."

Some agriculturally-oriented cultures, instead of hunting the grazing animals, corralled them near settlements. Instead of seeking nuts, berries, and grains, they cultivated them. With the advent of agricultural, sedentary people, a small group of plant species evolved and adapted to activities characteristic of such people; routine soil mixing, soil compaction, concentration of nutrients, and heavy grazing. As these activities intensified and civilization spread across the arable lands of the earth, so also did this group of plants. All organisms carry within their genes the physiological, morphological, and behavioral factors necessary to survive in the ecological context wherein they have evolved.

Some of these peoples in areas the world over became wealthy in their accumulation and storage of food and supplies. It seems that the more wealth they amassed and the more they felt free to waste correlated with the extent to which they regarded themselves "civilized."

When the people of the Old World began migrating to the New World, the inevitable clash of cultures began, each characterized by a radically different land ethic. The extent to which the struggle for

land occupation and natural resources took place between the two cultures mirrored the competition between the Old World and the New World floras.

The flora and fauna which co-evolved with the aboriginal people in the Chicago region were adapted to a people who defined themselves in relation to their land.

The ancients from early western civilization had the idea that every place had a *Genius*. A *Genius*, in the early sense of the word, was a tutelary deity, a spirit guardian of a place. There was a recognition that every place was unique unto itself, quite apart and different from all other places on the earth, and that the way the world worked in that place was governed by its guardian.

Some people seemed to understand that places were different everywhere they went, and that they had to be attentive to how things were there and acknowledge the *Genius*. Other people became hubristic with their own influence on the land and ever less respectful of the realities. And when they ignored the realities, the *Genius* became disappointed and no longer provided them locally with the bounty of the earth. So the land became depleted and they moved on or developed technologies which brought in resources from remote areas, deferring accountability for their actions.

In the Chicago region at the time of settlement, there was still an abundance of living things in this special place west of Lake Michigan. There were plenty of grazing animals, plenty of meat, plenty of robes, plenty of bones for tools. Precipitation percolated deep into the soil along the many root channels formed by the deep-rooted prairie species, and seeped clear and mineral-rich into the prairie swales and streams at a metered rate during the growing season. The land was full of water and the streams ran fresh and were full of fish. On the average, about 35 inches of precipitation falls each year over every square inch of this watershed; 35 inches per year can evaporate off of every square inch. Since the landscape was able to hold the water until it could evaporate or be transpired, the Illinois River had a negligible discharge into the Mississippi at its mouth, even though it drained more than half the state of Illinois.

As a result of the past 150 years of civilization, this bountiful land has been transformed into row-cropped agriculture, cities with multi-story buildings, and sprawling suburbs.

The remaining vegetation resides in highly managed parks or sidewalk planters. Little of the land can hold water. "Nature," now consists of hedgerows, vacant lots, golf courses, and parks.

Perhaps one of the landscapes most illustrative of this disconnection from the natural world is the "corporate campus" as it has developed in the last half of this century. It is typified in the Chicago region by vast, but otherwise lifeless tracts of closely mowed Kentucky blue grass, "installed" as one might a carpet, over clayey subsoil. The once deep topsoil is first scraped away and stockpiled, the intricate connection with the lower horizons destroyed. The "soil" is then spread back thinly over the compacted clay. Kentucky blue grass, with its fine, densely matted, shallow root system, cannot penetrate the clay subsurface and so runs water off nearly as efficiently as concrete during rain storms. Such landscapes drain rainwater quickly, causing it to leave laden with herbicides, pesticides, and fertilizers, to detention basins. The filthy water then is metered into our streams and rivers acting as a lethal injection into the life's blood of the continent.

Since water is not compressible and flows downhill, its volume increases in areas remote from its source. There often isn't room, so engineers and scientists recommend a hole, referred to either as a detention or a retention basin. The water is released at a "scientifically" calculated rate, and accumulates with other such waters from throughout the watershed to become roiling surfeits of floodwater. It empties finally into the Gulf of Mexico, where it contributes to a whole array of degradations to that once bounteous sea.

Except in the rare stream, tumor-ridden carp and goldfish are the principal inhabitants of our waterways. Few of our native fish can be sustained in such waters. To us a river is a straight, steep-banked, mud-sided thing that has grocery carts and doll baby heads in it when it's dry and is a muddy, frothy torrent with carp roiling in it when it's full. It has become nothing more or less than a running sewer.

Even among modern civilized people, there appears to be a vestige of acceptance for trees. But trees have become more like living room decorations. They are planted in rows, trimmed to have lollipop-like crowns, and rarely planted in landscapes as seedlings. Such trees live a concentration camp existence for a few years, then die. They are replaced with more from the nursery. There are many nurseries.

The corporate campus "look" has also become the sought-after ideal for the homes of civilized people, and is emulated. We have become too comfortable living with only inanimate

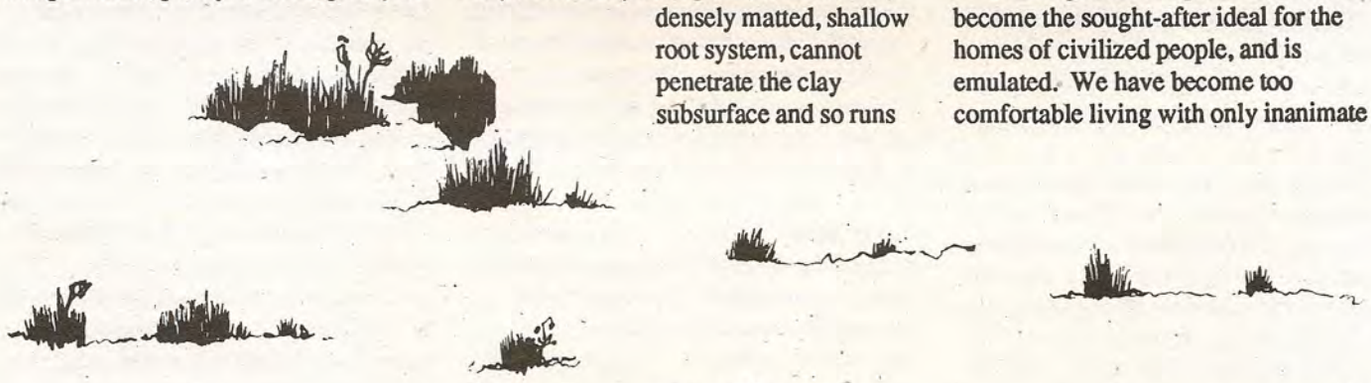


Illustration by Robert Greer

Continued on page 14

Human Beings, *from page 13*

things, and tragically uncomfortable living with life. In the suburbs, when the lollipop trees drop their autumnal leaves on the grass, people immediately deploy their "leaf blowers" as if the trees had done something dirty on their yards. Leaves are gathered quickly, stuffed into plastic bags, and sent off to a landfill. But now landfills are getting too full and people are being advised, reluctantly, to keep their grass clippings and leaves. There is no longer room for "yard waste." People are becoming confused. There seems to be no acceptable alternative to a life without life.

Perhaps it is as old Chief Lodgeskins mused: "The white man doesn't seem to know where the center of the earth is. Only the Human Beings know, and there aren't many Human Beings."

An elder once admonished a people who were becoming distant, who were no longer attentive, if you will, to the *Genius: The God gave your fathers and their children a land that flows with milk and honey. For the land is not where you sow seed, as a garden of herbs, but a land of hills and valleys which drinks rain water from the heavens. It is a land which the eyes of God are always upon, from the beginning of the year to the end of the year. Take heed to yourselves, that your heart be not deceived and you turn aside. The God will shut up the heavens, and there will be no more rain, and the land will no longer produce fruit, and the land of milk and honey will dry up.* Well, civilized people have been quite oblivious to the way the world works and have turned aside. The land is no longer able to drink. The land of milk and honey is drying up.

It's a profound metaphor, but civilized people feel they have risen above metaphors. These metaphors were the stories the elders told the young ones, so that they might understand the strictures of the *Genius*. When the Shawnee elder put his careworn hand on the shoulder of the young one and said: *The world is riding on the back of a turtle . . . If you endanger the turtle, you endanger the world.* The youth could understand that the turtle lives in the river. If the water becomes dirty or dries up, the turtle's life is in danger. So goes the turtle, so go the people.

Civilized people, clever and brilliant in their hubris, blast off into space, look down on the world and see that it's not riding on the back of a turtle. *The truth is: The position of the earth is actually 93 million miles from the sun, around which it revolves, its velocity and centrifugal force maintaining the distance; and there obviously is no turtle.* Our desperate search for the ultimate scientific answer is a naive attempt to contrive the ultimate, finite definition for a world that is put together with infinities. Evidently, a belief has arisen that scientists can replace elders, that knowledge equates to wisdom.

In 1795, about half of the people of the Shawnee nation were forced to leave their homeland in Ohio. The Shawnee, like many aboriginal people, called themselves the "Human Beings," as opposed to those other people that lived over there, such as the Wyandot and the Delaware. The shamans, the elders, the keepers of the mysteries, the story tellers, carried with them the combined knowledge of all the "Shawanasee" who had lived before in Ohio. They knew where the bison watered, the elk roamed, the edible plants grew, and the salt licks were. They understood how to be obedient to the *Genius*, so that the land could drink the rain and remain rich with milk and honey. Alexander Thom, in his book *Panther in the Sky*, described the angst experienced by the Shawnee elders, who knew well the way the world worked in the forests of southern Ohio. But they knew nothing of that far and distant land, where the Illinois were the Human Beings and the Shawnee would be the others. Of course, the Shawnee dispersed along the western trails and the Human Beings of southern Ohio disappeared from the earth.

I once thought that referring to one's tribe as the Human Beings was a quaint, chauvinistic notion. Now I see that it represents one of the most profound truths of humanity.

Human Beings defined themselves in relation to the land wherein they lived. They understood that there were limits, realities. One was not free to dirty the water and plunder the fertility of the soil. They were immediately accountable for such behavior. Human Beings did not think of themselves as gods. They were comfortable with the ancient stories, the ways of the elders, with the ones who carried incorrupt wisdom.

I believe there is a rebirth of the Human Being. Late this century, some Illinoisans began to discover that remnant patches of the ancient living earth still remained. People developed a kind of empathy for these places, a visceral sense that these places had stories to tell. The people recognized that there resided in these lands something that was worth honoring and rehabilitating. Fifteen years ago, along the North Branch of the Chicago River, there was a rebirth of the Human Being, a primitive, adolescent tribe. These Human Beings called themselves the "Land Stewards."

Initially, Land Stewards relied heavily upon expert ecologists and natural scientists to advise them on how to manage and curate these natural areas of the North Branch. But it soon became apparent that these latter-day shamans had only a limited awareness and fragmented knowledge of the realities of the place. Products themselves of modern civilization, these scientists often seemed to lack an empathy for the land, and their training had not equipped them to integrate the Human Being with the land. There was much disagreement among them and there was much dogma which seemed to conflict with what the Land Stewards observed. As years passed, the Land Stewards attended to the sacred place of the North Branch. They studied it and learned about the life there. They saw how the land responded to their care, noting what kinds of attention brought forth life and what kinds caused the lands to give up life.

The Human Beings of the North Branch began to assume a gentle dominion over the land, not a dominance or god-like rule, but a stewardship. Ever more shrewd in their observations, they began to manage the land according to their own experience. They studied the

land and its life intently. They drew from the knowledge of scientists. They drew from the stories of the native plants and animals themselves. The Stewards indexed success by the extent to which life flourished and the fecundity of the lands of the North Branch burgeoned. In areas which remained neglected, they noted the continued diminishment of native flowers and butterflies. Erosion progressed and waters ran muddy.

The Stewards also became aware that the North Branch lands were quite special. That this place really wasn't like any other place they knew. While at first similar to neighboring lands, the uniqueness of the North Branch became apparent as its biota flourished and as these Human Beings found the center of the earth. There was the recognition of a long-forgotten *Genius*. It was a land left 10,000 years ago by the last glacier, located about five miles west of a great lake in the middle of a continent, on soils developed over till derived from Niagaran dolomite. It was situated about 800 miles north of the Gulf of Mexico and exposed to dry, desiccating winds out of the west in the summer and Arctic outbreaks in the winter. The land and its living associations were unique unto themselves, and this uniqueness was being drawn from the earth by the Stewards of the North Branch.

A few years ago, there were just a few hundred Land Stewards in Illinois. Now there are over 5,000. These are people who are becoming Human Beings in an ancient and time-honored sense of the word, people who are becoming connected to something real, something incorruptible. When the North Branch Stewards travel south in Cook County to that far and distant Palos Hills, where there is now another small tribe of Human Beings, they feel as guests there. With their knowledge of the uniqueness of the North Branch, they see easily and profoundly how different and unique the land of Palos Hills is.

It would be easy to conclude, when one contemplates the massive, brutish destruction of the earth all around us, that there is no hope, that we are destined to face the Four Horsemen: famine, disease, unrest, war.

But there is hope. Consider the mindset of a farmer on a sojourn to Chicago in 1830. The Sauk Chieftain Black Hawk was angry. There was no government or market. There was no plow that could even begin to turn the prairie soil, which was mostly too wet anyway. How could he have imagined that the land would be in agriculture from Chicago to Denver in a lifetime? But it was. And it was accomplished by one farmer. And another. And another, as it became perceived to be economically imperative. It was accomplished by individuals who focused on the land where they lived.

Imagine a world where Stewards curated the genetic memory of the places where they lived, where they became attentive to the *Genius*. The natural vegetation, the plants and animals of northern Illinois, would begin to express their covenant with the earth and the land would drink from the rains of the heaven. Human Beings, place by place, would focus on the rehabilitation of the only flora and fauna on the globe that has a clue how to sustain the self-replicating, living landscapes of northern Illinois, the only flora and fauna wherein the Human Beings can see the reflections of their ancestors and imagine the well-being of the seventh generation hence. The Human Beings of the North Branch, the Palos Hills, the Poplar Creek, the DesPlaines, and now many other places, would curate the germ material out of which restorationists and other Human Beings would start rebuilding, reincorporating life and water into the landscapes around them.

What if corporate campuses started taking of that seed, of that holy harvest, and sowing it back into those brutalized landscapes? More and more lands would prosper and come to life as the rivers began to freshen. Imagine if civilized people awakened to the filth and destruction with which they have surrounded themselves, and decided it was desirable to have life in the land around their homes, and that the air and water should be clean . . . that the turtle should live.

Imagine the jobs, prosperity, and capital formed, as we redesigned and rebuilt agricultural, corporate, residential, and industrial North America intelligently, attentive to the realities with an eye toward tomorrow and our children. Instead of defining prosperity and indexing growth by the extent to which we divest the earth of its natural resources, we flip the way we view the world and start indexing prosperity by the extent to which we reinvest in the natural resources of the earth. People become again connected to the landscape, connected to something solid, something incorrupt. The metaphors, the long-forgotten stories of the elders, would again become meaningful. What if civilized people were to become Human Beings?

Can we anticipate the dawning of a new age, or must we acquiesce to the Four Horsemen? I think the answer lies in the genetic memory of what remains in northern Illinois and in the people who have dominion over it. I think people are free to make decisions which enable them to sustain the grandeur of the Human Being on earth, or choose to make decisions which render their life style and culture unsustainable. We can either write the epilogue of the time of the Human Being on earth, or we can write a new chapter to an old, old story. I think this is the beginning of the story of the Human Beings of the North Branch.

Suggested Readings:

Bury My Heart at Wounded Knee
by Dee Brown
The Cry and the Covenant
by Morton Thompson
East of Eden by John Steinbeck
The Mountain People by Colin Turnbull
Panther in the Sky
by James Alexander Thom

Gerould Wilhelm, Ph.D. is a Research Field Taxonomist at the Morton Arboretum. He coauthored the third edition of Plants of the Chicago Region in 1979. Wilhelm started working with Floyd Swink and Ray Schulenberg, two of the "grandfathers" of prairie restoration in the Chicago area, in 1974. He is currently working on a fourth edition of Plants of the Chicago Region, as well as a book on lichens of Missouri, Illinois, and the Chicago region. This is Jerry's first contribution to Prairie Projections.

No, this is not a seed bandit! Karen Laner models proper dust repellent attire while separating seed from chaff at the annual seed mix party last November.

By Mary Hanlon

Prairie Projections

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Ellin Beltz, Student, Herpetologist, Writer
Rick Gabriel, Architect
Adria Goodson, Account Executive, Leo Burnett
Tor Faegre, Carpenter, Writer
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