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the Conservationist

Joseph Brant by Gilbert Stuart

Courtesy New York State Historical Association, Cooperstown

The Iroquois of New York–Their Past and Present

Iroquois Industries

This is a detail from one of six displays of Iroquois Indian groups at the New York State Museum designed by Arthur C. Parker. The figures are life casts made by Casper Mayer and Henri Marchand. Background was painted by David C. Lithgow. The displays were completed in 1918.

This display represents a family of Oneidas beside a pond in Madison County. Man in center is chipping flint and telling a story. At the right is a weaver; to the left a wood carver and a moccasin maker. The figures are life casts of Oneida Indians made on New York and Canadian reservations.

— from notes by Charles E. Gillette

The Gos-to-weh — the typical Iroquois Headdress

the Conservationist

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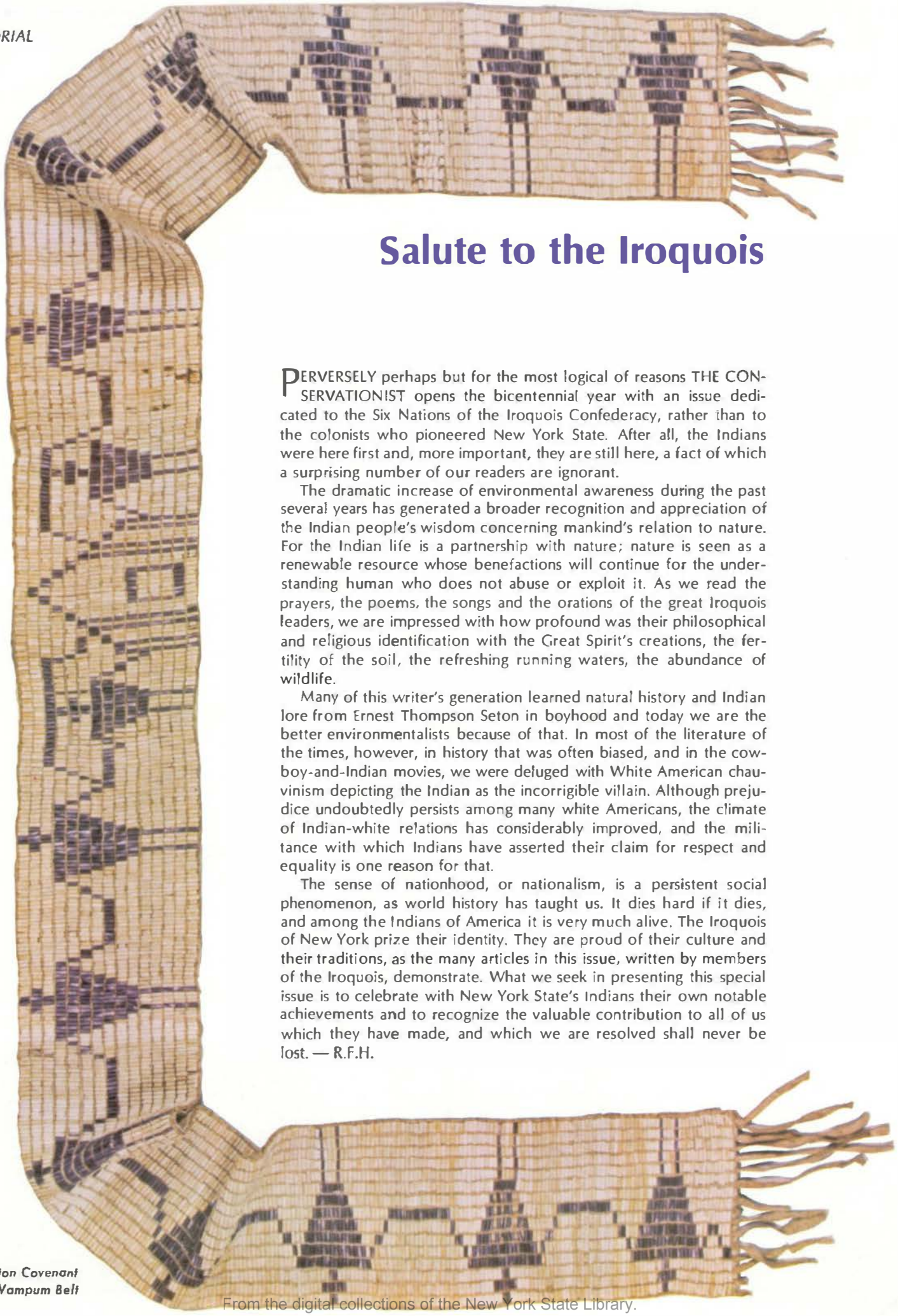


Salute to the Iroquois

PERVERSELY perhaps but for the most logical of reasons THE CONSERVATIONIST opens the bicentennial year with an issue dedicated to the Six Nations of the Iroquois Confederacy, rather than to the colonists who pioneered New York State. After all, the Indians were here first and, more important, they are still here, a fact of which a surprising number of our readers are ignorant.

The dramatic increase of environmental awareness during the past several years has generated a broader recognition and appreciation of the Indian people's wisdom concerning mankind's relation to nature. For the Indian life is a partnership with nature; nature is seen as a renewable resource whose benefactions will continue for the understanding human who does not abuse or exploit it. As we read the prayers, the poems, the songs and the orations of the great Iroquois leaders, we are impressed with how profound was their philosophical and religious identification with the Great Spirit's creations, the fertility of the soil, the refreshing running waters, the abundance of wildlife.

Many of this writer's generation learned natural history and Indian lore from Ernest Thompson Seton in boyhood and today we are the better environmentalists because of that. In most of the literature of the times, however, in history that was often biased, and in the cowboy-and-Indian movies, we were deluged with White American chauvinism depicting the Indian as the incorrigible villain. Although prejudice undoubtedly persists among many white Americans, the climate of Indian-white relations has considerably improved, and the militance with which Indians have asserted their claim for respect and equality is one reason for that.

The sense of nationhood, or nationalism, is a persistent social phenomenon, as world history has taught us. It dies hard if it dies, and among the Indians of America it is very much alive. The Iroquois of New York prize their identity. They are proud of their culture and their traditions, as the many articles in this issue, written by members of the Iroquois, demonstrate. What we seek in presenting this special issue is to celebrate with New York State's Indians their own notable achievements and to recognize the valuable contribution to all of us which they have made, and which we are resolved shall never be lost. — R.F.H.

The Washington Covenant Wampum Belt

POWLESS

ELM

LYONS

WHITE

PAGE TWO *about this issue*

Our cover has its own story. It is the story of Thayendanegea, the Mohawk chief known to the whites as Joseph Brant. His qualities of brain and character were noted early by Sir William Johnson who sponsored his attendance at the Moor Charity School at Lebanon, Conn., from which grew Dartmouth College. Sir William subsequently married Brant's sister, Molly. On the death of Sir William in 1774, Brant became secretary to Guy Johnson, superintendent of Indian Affairs under the colonial government and when the American Revolution began, Brant organized Iroquois support for the British.

Not the first to be deceived by kings, Brant who held a commission as captain in the British army was denied a pension. "When I joined the English at the beginning of the war," Brant said, "it was purely on account of my forefathers' engagements with the King. I always looked upon these engagements or covenants between the King and the Indian Nations as a sacred thing." If the King didn't wish to grant him a pension, Brant said, "I beg of him to think no more about it."

The portrait of Brant on our cover was painted by Gilbert Stuart, the American artist in London in 1786 when the Mohawk chief was in England for his second visit. Brant wore his headdress because, he said, without it he might be mistaken for an Englishman.

This is the second of two paintings of Brant by Stuart. The first remains at Syon House in London. This one belonged to the Earl of Moira whose descendants sold it to John McNamara Hayes who sold it to Mr. Stephen C. Clark Sr., who gave it to the New York State Historical Association in Cooperstown. We reproduce it with the kind permission of the association.

In compiling this special issue on the Six Nations we had the assistance of many people but we particularly wish to thank Phil Tarbell, Charles Gillette and Ann Lewis of the New York State Education Department and Mrs. Lillian Samuelson of American Indian Treasures Inc., Guilderland, N.Y. for their understanding, gracious advice and general aid in obtaining graphics, names of people to contact and answers to questions with which we bombarded them.

RONENT E. POWLESS (All People, All Tribes, All Nations) a member of the Oneida Nation, is a professor of American Indian Studies at the University of Minnesota, Duluth, where he received the Outstanding Faculty Award for excellence in teaching. A native of Green Bay, Wisconsin, Mr. Powless has had an active career as a teacher, counselor and writer on the status of the American Indian in contemporary society. He is a charter board member of the National Indian Education Association and a former director of the Upward Bound Program at the Wisconsin State University, Stevens Point. He and his wife Linda, with their two children, live in Duluth.

DONALD L. TUTTLE (Archaeology of the Iroquois) is a frequent contributor to THE CONSERVATIONIST. Currently director of the Fort Plain Museum, Mr. Tuttle is also director of the Environmental Education Program for the Herkimer County BOCES and conducts an annual summer program for teachers and students wanting to study the natural and social history of the Mohawk Valley and the Adirondacks. A graduate of the University of Michigan, Mr. Tuttle was the recipient of the William T. Hornaday Award for Distinguished Service to Conservation.

GERALD PETE JEMISON (A Portfolio of Iroquois Art and Craft), a member of the Seneca Nation, is an artist and art teacher. A graduate of SUNY in Buffalo and a former teacher in the Niskayuna Public Schools, Mr. Jemison recently assembled a traveling exhibit of Indian art "Iroquois and Native American Art of Today" which has visited several cities in New York State.

PHILLIP H. TARBELL (From Lake Champlain to Eagle Bay) is a specialist in Indian culture for the New York State Education Department. A St. Regis Mohawk he was born and raised at Akwesasne (St. Regis). Mr. Tarbell served in the United States Marines before graduating from Hartwick College in 1969. He has also been a structural iron worker and a computer programmer analyst. Mr. Tarbell, his wife Jane and two children live in Delmar, N.Y.

LLOYD ELM SR. (The Hodinonshonni) is director of ONAP, a special program of the Institute for the Development of Indian Law. A member of the Onondaga and Oneida Nations, Mr. Elm holds both undergraduate and graduate degrees from Syracuse University. He has taught anthropology at Syracuse and at SUNY, Oswego. Before accepting his present position, Mr. Elm was principal of the Onondaga Indian School, Nedrow, N.Y. A veteran of the U.S. Marines, Mr. Elm lives in Washington, D.C. with his wife, Isa, and four children.

THEODORE C. WILLIAMS (The Feast), a member of the Tuscarora Nation, was born on the Tus-

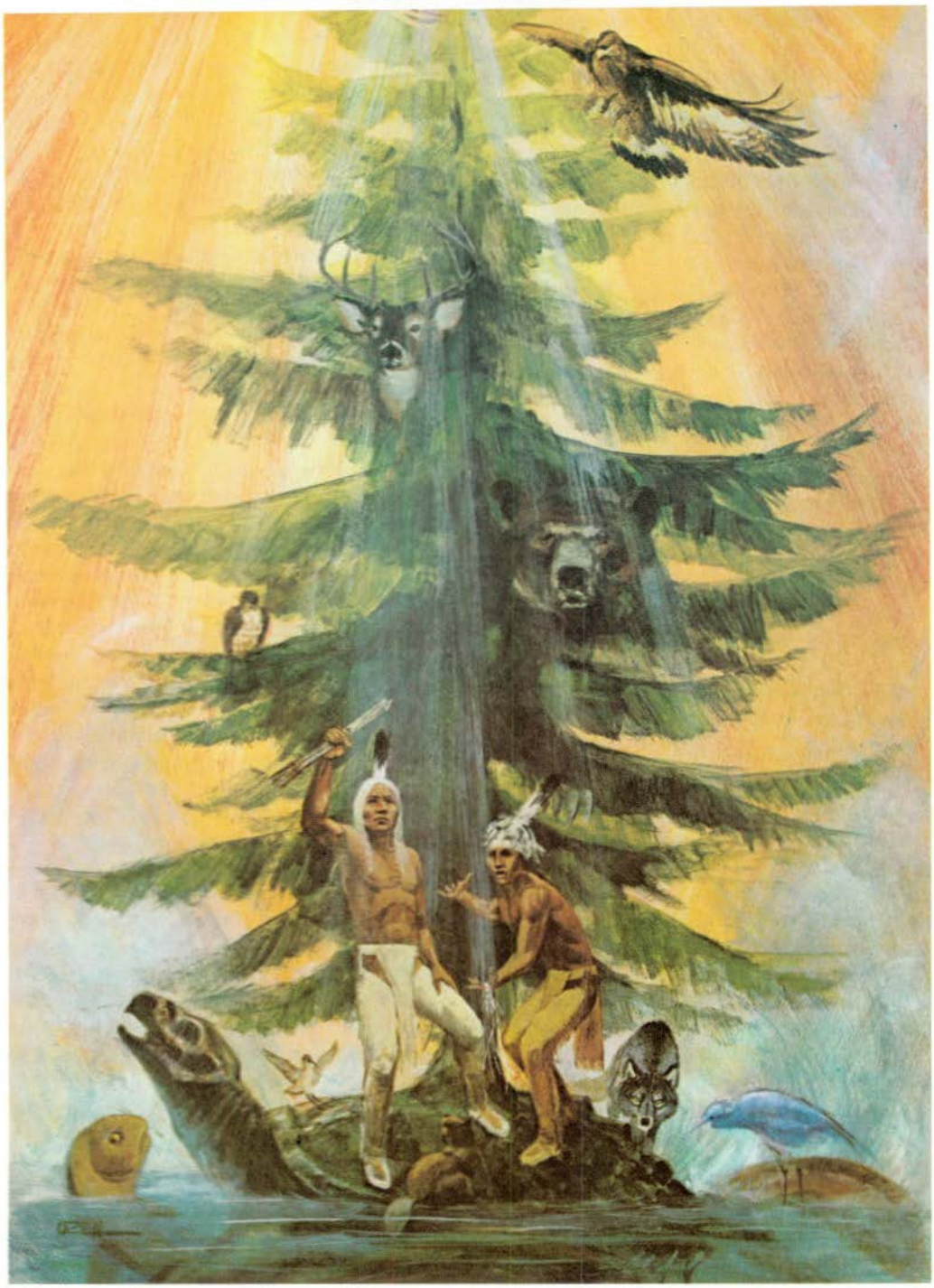
(Continued on page 47)

TUTTLE

WASSER

TARBELL

The Hodinonshonni



The Iroquois Tree of Peace by Oren Lyons — Courtesy Onondaga Savings Bank

The People of the Longhouse

I am Dekanawidah, and with the Five Nations confederate lords I plant the Tree of the Great Peace. . . I name the tree the Tree of the Great Long Leaves. Under the shade of this Tree of the Great Peace we spread the soft white feather down of the globe thistle as seats for you, Atotarho and your cousin lords. There shall you sit and watch the council fire of the confederacy of the Five Nations. Roots have spread out from the Tree, and the name of these roots is the Great White Roots of Peace. If any man of any nation shall show a desire to obey the laws of the Great Peace, they shall trace the roots to their source, and they shall be welcomed to take shelter beneath the Tree of the Long Leaves. The smoke of the confederate council fire shall pierce the sky so that all nations may discover the central council fire of the Great Peace. I, Dekanawidah, and the confederate lords now uproot the tallest pine tree and into the cavity thereby made we cast all weapons of war. Into the depth of the earth, down into the deep underearth currents of water flowing into unknown regions; we cast all weapons of war. We bury them from sight forever and plant again the Tree.

Dekanawidah — Cofounder of the Iroquois Confederation

by Lloyd M. Elm, Sr.
(Onondaga)

The Founding of the League of the Iroquois

THE prime source of information in this article is the oral history passed from generation to generation within the Hodinonshonni. This reliance on the oral history may lead to some conflict with contemporary historians who question the validity of any oral tradition. However, one should note that the historical documentation considered factual ten years ago is being challenged today because of more accurate dating methods. A prime example is the carbon-14 analysis carried out by Dr. James A. Tuck in studying the archaeological history of the Onondaga Nation. The two basic changes that have resulted from Dr. Tuck's research are the "where" and the "when" as to the origin of the Hodinonshonni. Dr. Tuck noted that, "not until recently has it been realized that the Iroquois culture might simply have risen in the area where the European colonists first encountered it." He went on to state, "Archaeological evidence collected at more than a score of sites over the past two decades shows that the Onondagas — the key tribe in the confederacy — developed into full-fledged Iroquois from a preceding level of pre-Iroquois culture in the years after A.D. 1000 without ever leaving a 25-by-15 mile area in upper New York State near modern Syracuse. What is true for the Onondagas must surely hold for the other tribes in the confederacy; the Oneidas and Cayugas immediately to the east and the west, the Senecas of the Genesee Valley farther to the west and the Mohawks of the Mohawk Valley farther to the east."

With this introduction let us now relate the story of the Iroquois as it is recited by oral traditionalists of today.

This is the way they said it happened.

"Many, many years ago on the banks of the Oswego River, near its mouth, our people, the People of the Longhouse, 'sprang from the Earth'."

The actual time span, or approximate time of this occurrence, is not part of written history. The most important thing is that it did happen at a time long before any European influence. In fact, after one becomes aware of much of the cultural evolution that took place prior to the individual identity of the nations involved, one would have to place it long before A.D. 1000.

Culturally speaking, the community that made up the Iroquois at this time were one people. The term, "sprang from the Earth," on one level, means that the community took on a unique cultural identity. Social patterns became common and acceptable to the entire population. However, "sprang from the Earth" goes much deeper — suggesting that this early population's relationship to its environment could be traced to the laws that governed nature.

In fact the significant events of their everyday life were based primarily on the changing of the seasons, the planting and harvesting of the various fruits and vegetables cultivated. In addition, Lewis H. Morgan accurately described them as being a "hunter state." The combination of agriculturalists and hunters — this "brother and sister" relationship to all parts of the creation — gave rise to a people who were the original Iroquois. The occurrence of religious festivals also was determined by the seasons for planting and for hunting.

The sacred attitude that these people held for the "mother earth" is the central value for the overall culture.

This is the way that they said it happened.

"As time passed the Hodinonshonni grew large in number. They were prosperous and happy. Because of their larger numbers it became increasingly difficult to meet the needs of all the people. The hunters had to travel great distances to find the game necessary for their survival. The clearing of land for planting extended far beyond the original planting grounds.

"The hunters returned with stories of great lands, far off, that could easily sustain the people. The need to move was obvious.

"A decision was made to move and to separate. The initial separation resulted in three groups. One group migrated to the Mohawk Valley region. One group migrated to the Genesee Valley region, and the remaining group stayed within the region of the lower Oswego River."

Each group carried with them the common culture, including language, that sprang from the Earth on the banks of the Oswego. Eventually the two "outside" groups separated again. The result of this separation led to the five original groups that would reunite into what the British much later called the Five Nations Confederacy.

How long they existed as separate entities must be left to speculation. However there is evidence that the two outside groups did remain together for a significant amount of time. The group that originally migrated into the Mohawk Valley eventually separated into the two groups now known as the Mohawk Nation and the Oneida Nation. The group that migrated to the Genesee Valley separated into the two groups known today as the Seneca Nation and the Cauyga Nation.

Upon examination of the five languages, or dialects, of the original five nations, there is a striking similarity between the Mohawk language and the Oneida language. There also exists a similar commonness between the Seneca and the Cauyga languages. Comparatively speaking, the Onondaga language is distinct in itself. This linguistic comparison strongly suggests that the two outside groups remained together long enough to carry over a strong similarity in language. At the same time there is a general similarity between all five languages that infers a common original language.

This is the way they said it happened.

"As time passed, the people changed. They began to act hateful to each other. They began to kill each other. The people became fearful of one another. At times, they said, some of them even practiced cannibalism. The people were sad."

The isolation that each group experienced, at first, prevented any competition for survival. They came together socially, and also for mutual economic benefit. The areas for hunting were plentiful and the boundaries for these areas were mutually agreed upon.

However, there came a time when other groups, such as the Huron and Algonquian, began to put pressure on the Iroquois and groups of the Iroquois fought with these other groups. Even individually the Iroquois were powerful. Eventually they fought each other. To both group, and individual, power became important. A change was to take place.

This is the way they said it happened.

"A very special man was sent to the Hodinonshonni. He brought with him a Message of Peace. They said that this man's name is very sacred and should not be used in casual conversation (or printed today). They said we should call him the Peacemaker when we refer to him. His message was so powerful that it caused great changes in the Hodinonshonni.

"The Peacemaker took his message to the Mohawk Nation first. While he was giving his Message of Peace to the Mohawks, he was joined by Hiawatha. Hiawatha was to become his companion and helper as he traveled to the other nations of the Hodinonshonni.

"Before the Peacemaker left the Mohawks he gave them all that they needed. The effects of this Message of Peace were so great, and resulted in such drastic changes, that word of the Peacemaker and his message traveled to all of the other villages long before he left the lands of the Mohawk.

"Prior to arriving at the Mohawk villages where he was to meet the Peacemaker, Hiawatha had spent several seasons traveling in solitude. They said that Hiawatha hermitized himself in grief because of misfortune that came to his family. During these travels Hiawatha began to use strings of wampum shells to remind himself of some very special thoughts that came to him while he was in mourning.

"When the Peacemaker first met Hiawatha he asked him what the strings of shells were. Hiawatha recited the special thoughts that came to him, using the strings of wampum to aid him in recalling these thoughts in sequence. The Peacemaker recognized that Hiawatha was a very special man, and he asked him to be his companion as he traveled to the other villages of the Hodinonshonni.

"The Peacemaker and Hiawatha spent at least a decade of time delivering the Great Law of Peace to all of the Hodinonshonni. In some cases their efforts were frustrating in that certain groups and individuals were not ready to immediately accept the change.

"However, there came the time when all of the leaders gathered on the northeast shore of the Onondaga Lake. The Great Law of Peace was recited for all to hear.

"Hiawatha had made a wampum belt to record the essence of the unification of the Five Nations. He delivered a message of unity and peace that resulted in the coming together of the minds of all of the people. The first Grand Council of fifty Sachem Chiefs was in session. They accepted the Great Law of Peace to be the binding law that would surely hold them together for their perpetuation and survival."

I imagine it would be important to some people if we could tag this great historical event with a reasonably accurate date, but it is not possible. In Dr. Tuck's research several Onondaga villages were described relative to geographic location. The carbon-14 analysis dates several of these sites near, or just following, A.D. 1000. However, the geographic descriptions of Dr. Tuck's sites do not correspond to the geographic descriptions that are part of the oral history. The sites described in the oral history have not, at least to this time, even been described by non-Hodinonshonni historians. This could suggest that the Onondaga villages that existed at the time of the first Grand Council, when both the Peacemaker and Hiawatha were present, existed prior to the villages that Dr. Tuck studied. I choose not to belabor this point, but I must emphasize that this concept is much more compatible to the oral history perspective.

The Great Law of Peace harnessed the great power of the Hodinonshonni and gave it a positive direction. The result was the political control of all of the lands from the St. Lawrence River to the Tennessee and west to the Mississippi. The roots of the Great Tree of Peace extended in all four directions, inviting any group or individual to come under its protection.

The sacred attitude toward the Mother Earth was restored to the Hodinonshonni by the Great Law of Peace, along with the structure and function of the Grand Council of Sachem Chiefs. Their minds were dominated by thoughts of peace and kindness for the People of the Longhouse.

An exquisite design for a most humane way of life was to guide the Hodinonshonni through the most prosperous part of their history for many generations to come.

And then the white man came.

The Hiawatha Wampum Belt

John Goerg

Archaeology of the Iroquois

by Donald L. Tuttle

Photos of dioramas and artifacts by John Goerg
Courtesy of Rochester Museum of Arts and Sciences

AT the time when Europeans arrived in northeastern North America, the most powerful Indians in the region were the Five Nations of the Iroquois Confederacy centered in New York State. With firearms acquired in the 17th century, first from the Dutch and then the English, the Great League of the Iroquois forayed west to Michigan and as far south as Virginia and Tennessee. They crushed the nearest of their traditional Algonkian-speaking enemies and even destroyed other Iroquois-speaking tribes that did not belong to their confederacy. The fiercest of these were the Mohawks (the name means cannibals) who lived along the Hudson and Mohawk Rivers. West of them were the Oneida and then the Onondaga; further west were the Cayuga, a small group. The most westerly Iroquois, and the most numerous, were the Seneca, who harassed the Indians living along the Ohio River and its tributaries.

The Iroquois did much to help the English win control of Canada in the 18th century, and were constant allies of the English during the War of Independence. Writers of the period were awed by this impressive military machismo and the unique cultural confederation of these Indians. The role they played seems all out of proportion to the slim resources at their disposal. How did the Iroquois manage to accomplish so much? The five tribes of the confederacy have been estimated to have had never more than 12,000 members, and probably considerably fewer. Their fighting men have been estimated to number only some 2,200. Today, historians with the aid of archaeologists and ethnologists are providing the answers to this and other equally intriguing questions.

What was thought about the Iroquois in the 18th and 19th centuries is helpful in interpreting their prehistory and development. European philosophers saw this native American as the "Noble Savage" — the Greek of the New World. His self-control and stoicism recalled the Spartans, and his courage, fidelity, and generosity were worthy of the heroes of antiquity. James Fenimore Cooper compounded this romantic's view with a sentimentalism as weak as some of his novels' plots. It is said that when Benjamin West, the American painter, saw the famous Hellenistic statue of the Apollo Belvedere in Rome, he exclaimed, "My God, a Mohawk!"

Perhaps no one did more to popularize the Iroquois in the 19th century than did Lewis H. Morgan. A contemporary of Cooper, Morgan actually lived with the Iroquois for a time, recorded their democratic social organization and civil government, and collected examples of Iroquois fabrics, beadwork, implements and utensils. His classic "League of the Iroquois," published in 1851, became a pioneer work in anthropology.

Bone comb

Morgan's work, incidentally, was greeted warmly by Karl Marx and Friedrich Engels as confirmation of their theory of social development, specifically, that a kind of primitive communism preceded class society. In "The Origin of the Family, Private Property, and the State" (1884) Engels wrote: . . . "And a wonderful constitution it is . . . in all its childlike simplicity! No soldiers, no gendarmes or police, no nobles, kings, regents, perfects, or judges, no prisons, no lawsuits. . . . There cannot be any poor or needy — the communal household and the gens [lineage] know their responsibility towards the old, the sick, and those disabled in war. All are equal and free — the woman included."

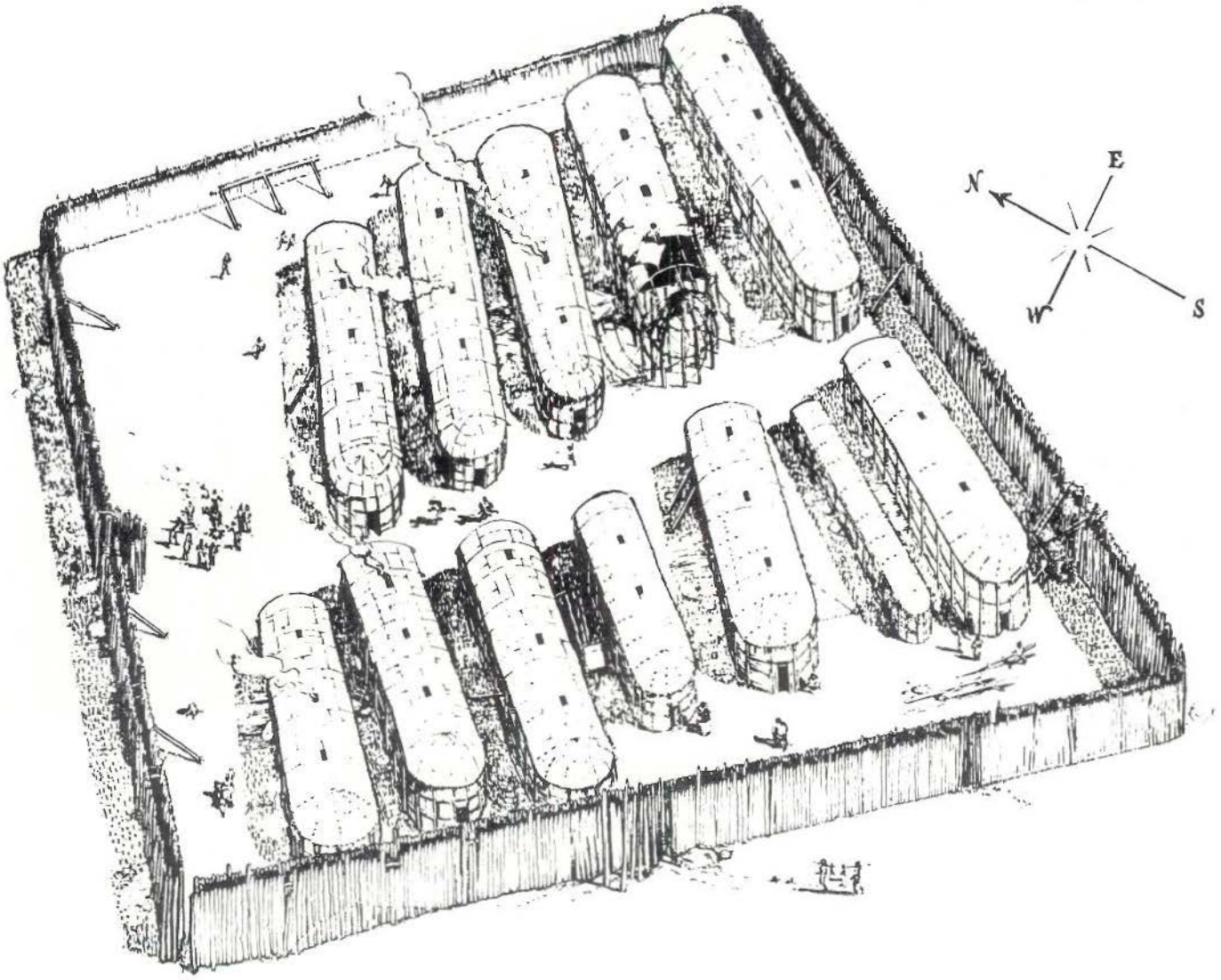
The "Noble Savage . . ." it was the French, however, a century and a half earlier who laid the foundation for this long-lived opprobrium. Probing the waterways of the St. Lawrence, Lake Champlain, and the Hudson, French Jesuit missionaries wrote the title page of Iroquois history — in red, and with one eye closed. The "Jesuit Relations" lauded the character of those who received their advances with open arms and souls and, at the same time, derided those who, in the main, ferociously resisted proselytization.

Beaded pouch

Like most of the other aboriginal inhabitants of the region, the Iroquois were representatives of the Late Woodland period of Northeastern prehistory. More typically farmers and hunters rather than warriors, they lived in villages in forest clearings, often protected from raiders by one or more palisades made of poles. In the clearing beyond the palisade the women of the village raised corn, beans, squashes, and tobacco, and gathered wild plant food. The men hunted and fished. Except for dogs, domestic animals were unknown. Inside the palisades stood several "longhouses," which were typically 50 to 100 feet in length, consisting of a framework of saplings covered with sheets of bark. The longhouse was divided into apartments that were usually occupied by closely related families. Running down the middle was a corridor where families living on each side shared fireplaces. Each of the five tribes of the confederacy occupied one or more such villages, usually only a few miles apart.

The origins of the Iroquois are obscure, but the current theory is that Iroquois culture arose right here in New York State. Archaeological evidence collected at dozens of sites over the past three decades shows that the confederacy developed into full-fledged Iroquois from preceding levels of pre-Iroquois culture in the years following 1000 A.D.

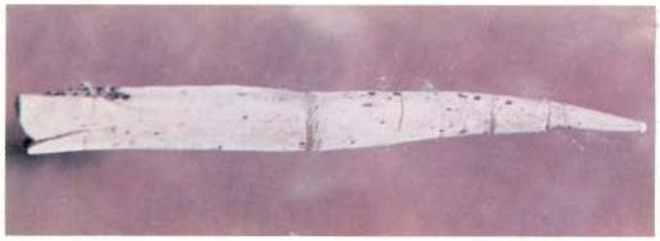
Longhouse Village c. 1666-1693
Drawn from Excavation Records
Courtesy Mohawk-Caughnawaga Museum

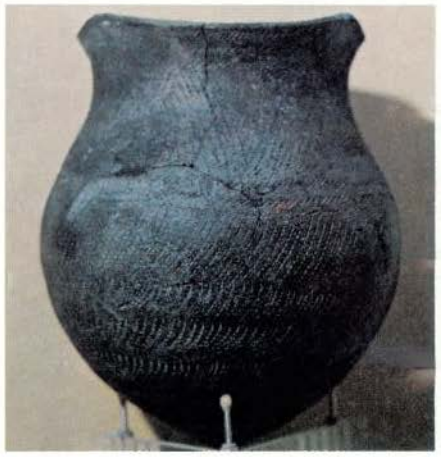


This Late Woodland culture in New York is named Owasco after a site at Owasco Lake, near the center of the state. Nearby, a mile east of Jordan, Onondaga County, occurs one of the earliest Owasco sites ever excavated by archaeologists: the Maxon-Derby site. (Archaeological sites usually take the name of the local landowner or a local topographical feature.) The Maxon-Derby site was excavated in 1959 and 1960 by William A. Ritchie of the New York State Museum. It covers two acres and includes the floors of seven houses. Carbon-14 analysis shows the village was occupied around 1100 A.D.

The outlines of the seven houses could be traced partially or completely by rows of post molds: dark stains in the subsoil that mark the position of poles pushed into the ground to form the frames. Most of the houses were small, with parallel sides and rounded ends, approximately 60 feet long. Among the artifacts found were triangular stone arrow points, bone tools, and fired-clay pipes. The food remains showed a typical Owasco menu: bones of mammals, birds and fish, the debris of wild plants, and charred kernels of corn. All of these objects in one way or another, including the absence of a palisade around the village — common at later periods — foreshadow later Iroquois developments.

Of all the Indian sites excavated in New York, another site in Onondaga County, the Kelso site, is probably the most significant in terms of the problem of Iroquois origins. One mile south of Elbridge, N. Y., the Kelso site represents almost a perfect transitional stage linking the earlier Owasco to nascent Iroquois development. Here, archaeologists from the New York State Museum found not one, but actually two villages overlapping in an area of about four acres, suggesting that Indians here returned to a favored site after an absence of perhaps a decade or so which allowed the restitution of game supplies, firewood, etc. Houses were of two types, oval to oblong, about 16 to 32 feet long, and a true Iroquois longhouse of about 128 feet with central fireplaces and sleeping platforms along the walls. The fortification features, the earliest known for New York Iroquois, are of considerable interest as they are radically different from later Iroquois palisades made after the introduction of the steel trade ax. Each of the two partly overlapping enclosures, roughly round in outline, had been constructed of saplings 3 to 4 inches in diameter set with a twisting motion into the ground. The double, sometimes triple, palisade lines were separated by corridors about 4 to 6 feet wide and were approximately 15 feet high. A stockaded village "fort" of this type was described by Samuel de Champlain in his 1615 encounter with the Onondagas: the village "was enclosed by four stout palisades made of large timbers, thirty feet in height, interlaced together with not more than half a foot between them, and galleries like a parapet which they had fitted with double timbers, proof against our shots, and they were near a pond where there was no lack of water, with many waterspouts placed between the palisades which spouted out water, and they had this stored under cover to put out fires."





(top) Storage house for corn; (above) Building a longhouse; (above, right) Awl; (right) Vase

(left) Bone necklace; (below) Projectile points and turtle rattle

East of the Finger Lakes down the Mohawk River there occurs the site of the Mohawk Caughnawaga Village, near Fonda, New York. One of the most completely excavated Indian village sites in New York State, it represents Iroquoian life at its height.

Prior to 1666, Mohawk castles or villages stood on the south side of the Mohawk River. In that year, a French advance under the Marquis De Tracy destroyed these castles, and soon after the Mohawks moved to the north side of the river and reconstructed their castles. Caughnawaga was the first castle, nearest to Fort Orange or Albany.

Exploratory archaeological investigation on the Caughnawaga site was started in 1943, but it wasn't until 1948 that the Van Epps-Hartly Chapter of the N.Y.S. Archaeological Association began excavations in earnest. Work proceeded for the next two years, exposing a wealth of fire hearths, palisade lines, longhouses and refuse pits. Unlike earlier Iroquois sites devoid of traded items obtained by contact with Europeans, the Caughnawaga site yielded trade pipes, glass heads, metal knives and axes, gun flints, musket balls and gun parts, Jews' harps, copper kettles, along with typical late Iroquoian items such as wampum beads, effigy pipes, pottery fragments and flint projectile points.

This was the period of the confederacy's greatest influence. The Iroquois conquered the Huron Indians in 1649, the Tobacco and "Neutral" tribes in 1650, the Eries in 1656 and other groups in succeeding years. By the 1670's the confederacy held sway from the Illinois River in the west to the Kennebec in the east and from the Tennessee River north to Ottawa. In 1711 the British settlements in North Carolina expelled the Iroquoian-speaking Tuscaroras. They moved north and were formally adopted by the Oneidas, increasing the membership of the confederacy from five tribes to six.

The confederacy sided successfully with the British in the bloody frontier campaigns of the French and Indian Wars, and during the American Revolution most of the tribes chose the fight with the British. The retaliatory campaigns of Clinton and Sullivan in 1779 lead to their eventual defeat and brought general destruction to the Iroquois homeland. The surviving Onondagas took refuge first on a reservation near Buffalo and finally on a parcel of land near Syracuse, part of which today constitutes the Onondaga Indian Reservation. Of the other tribes, most of the Oneidas were resettled in Wisconsin, and many of the surviving Mohawks and Cayugas fled to Canada.

Today, the old picture of war-painted Iroquois yellows with age and crumbles, to be replaced with a panoramic unfolding of the continuous tradition of a native American people. For two centuries the Iroquois have struggled with the demons of frustration and futility; yet despite attempts to bankrupt their culture they still exist in Canada and New York State, waxing stronger and preserving the consciousness of their separate identity in the mainstream of American life. More numerous today than formerly, it should be evident that in the Iroquois there lies an inbred dynamic force abounding in self-determinism.

All People, All Tribes, All Nations

by Robert E. Powless
(Oneida)

The Creation Legend

ROOTS have spread out from the Tree of Great Peace, one to the North, one to the East, one to the South, and one to the West. These are the Great White Roots, and their nature is Peace and Strength." These words from the Law of the Great Peace of the People of the Longhouse have stood for centuries. They are part of the "world's oldest continuously observed agreement between peoples of honor and good faith." In the past two or three decades Indian and non-Indian alike have begun to focus on the "contributions" of the American Indian to the general American society. These contributions have often been presented as though their various elements were designed specifically for the enhancement of the non-Indian culture and had vitality and substance only in that context.

I would like to put forth a thesis that, while the non-Indian population of the U. S. was not necessarily to be exempted from the benefits of these "contributions," they were indeed intended for all people, all tribes, and all nations, present and future. While the more mundane kinds of benefits had their importance, I will speak more about the ethical and value-oriented contributions of the American Indian to the world.

Once, at a conference, I heard an Indian speaking on this area of "contributions." He was a very young man and no doubt overly impressed by the educational stature and credentials of many of the Indians and non-Indians in the audience. As he proceeded nervously to enumerate the various gifts from the Indians as they had been described in a variety of books and articles, he became more and more incoherent until finally he could do nothing but repeat virtually every other sentence, "Remember, the Indians gave you popcorn."

I greatly empathized with the nervousness and confusion of the young man, but I could not help but think that so often we have in talking about Indian contributions, only emphasized the popcorn-type of benefit to the society as a whole and to the world. In his book "Indians of the Americas," John Collier says, "They had what the world has lost. They have it now. What the world has lost, the world must have again, lest it die. Not many years are left to have or have not, to recapture the lost ingredient." Briefly I will be trying to give you an idea of what it is that Collier was speaking of and what this means for a country looking at its past in a bicentennial period.

Collier emphasizes the "lost reverence and passion for human personality" and the "lost reverence and passion for the earth and its web of life." These twin philosophies of "people before things" and the interrelationship of all of nature are not unique in the world. In the 20th century, however, Indian people in various places in our hemisphere are perhaps the only humans who can be found living these philosophies as a group and applying them in a pragmatic way to the daily functions of life. Because perhaps of their spiritual orientation, these kinds of "contributions" to a society based on material acquisition, competition and individuality are either overlooked or played down. It was even so in the days when Sagu-yu-what-hah (Red Jacket) the Seneca made his response to the Reverend Mr. Crum in 1805: "Brother, you say there is but one way to worship and serve the Great Spirit; if there is but one religion, why do you white people differ so much about it? . . . We also have a religion which was given to our forefathers, and has been handed down to us their children. We worship in that way. It teaches us to be thankful for all the favors we receive; to love each other, and to be united."

In troubled times, people have traditionally sought spiritual enlightenment to help in solving their problems. Perhaps in our era then, there is hope for some breakthroughs into hearts and minds. Evidence of a growing concern in this area can be found in a recent speech at Gonzaga University by House Ways and Means Chairman Al Ullman, who said, "How long will it take us to repaint the American dream? How many years before the longest car and the thickest carpet are no longer measures of the nation's health?"

As an observer of the American scene from an Indian viewpoint, I have come to the conclusion that the greatest gift Indians have to give lies in the concept of sharing.

A-ten-sic, the Sky Mother fell to earth through a flaming hole in the sky. A flock of birds, seeing her plight, flew up to ease her fall. She landed on the back of a tortoise. With the mud from between his claws, the tortoise built the earth on his back. A-ten-sic gave birth to two sons, the spirit of good and the spirit of evil. And thus the earth was born.

Painting by Tom Two Arrows

Too often this has been misinterpreted as only the exchange of material goods. While it includes that, the crux of the matter is in the way Indians perceived, and some today still perceive, the sharing of goods, ideas, services, and time. Sharing was a holy obligation ordained by the Creator. In sections 20, 21, and 23 of the Code of Handsome Lake we find: ". . . Now the Creator made food for all creatures and it must be free for all. He ordained that people should live in communities. Now when visitors enter a lodge the women must always say, 'come eat.' . . . The Creator loves poor children and whosoever feeds the poor and unfortunate does right before him. . . . Now the Creator has ordained another way. He has ordained that human creatures should be kind one to the other and help each other. When a woman visits another house she must help at the work in progress and talk pleasantly." Sharing became not a gambit for social approbation or a political ideology. As my grandmother once told me, "It is what Indians do."

As Collier expressed earlier in other words, the concept which I have called "people before things" is an integral part of what Indians had and have which non-Indians should rediscover. At our small university many functions previously performed by people have now been computerized. Mistakes are still made, only greatly magnified. Certain information available in the past is no longer obtainable because "our programs don't cover that." An increasingly larger segment of the faculty views this technological advance at best as a mixed blessing. Because of these kinds of incidents, struggle and debate over who is to be master, men or machines, people or things, flare up anew in our decade.

When a society becomes more oriented toward things than people, many of the qualities that make humans unique become sublimated and sometimes lost. Canadian Indian Wilfred Pelletier comments on this: "Here we say that you mustn't show your feelings. I don't agree with that. If a man can cry, then he has feelings. Indians cry all the time. We get together and sing songs, and we cry in these songs. But this society is very machine-like, and so we begin to act like machines and then we become machines." If Orwell's 1984-type world is to be avoided it can only be through the efforts of our children. Are your schools placing these value-oriented Indian "contributions" before your children or are they still serving popcorn?

People spend an entire lifetime searching for peace and love individually without realizing that such ethereal concepts can only be discovered when they are willing to come together in a spirit of community, or tribalism. Indians knew this either by a revelation from the Creator or by thousands of years of trial and error. Indian author Vine Deloria, Jr. commented on this in 1969 when he said, "Tribalism is the strongest force at work in the world today. And Indian people are the most tribal of all groups in America."

It is my observation that when economic times are extremely hard or extremely good people tend to become more individualistic. "I'll get mine and you get yours" is the general rule. When times are "middling bad" however, as they are today, it seems that people begin to talk more of community, or sharing. What they are talking about is tribalism.

As we examine ourselves in the bicentennial year let us hope that we can see the need for looking to the American Indian for the great "contributions" the people have to offer.

John Collier prophesies this time when he says: "There will come to dawn in the nations, the Indians playing their part, two realizations. The first, that their soils, waters, forests, wild life, the whole web of life which sustains them, are being wasted — often irreparably and fatally. The other, that their local community life, their local democracy, their values which are required for beauty, wisdom and strength — their very societies — are wasting away even as their natural resources are wasting. As these realizations increase, the nations will turn to their Indian societies increasingly, seeking the open secrets they have to reveal."

From Lake Champlain to Eagle Bay

Compiled by Phillip H. Tarbell
(St. Regis Mohawk)

The Iroquois or People of the Longhouse are comprised of Six Nations, the Mohawks, the Oneidas, the Onondagas, the Cayugas, the Tuscaroras and the Senecas. Up until the end of the American Revolution they occupied most of central and western New York. During the American Revolution most of them chose to side with the British and as a result were driven from their ancestral homes. Today there are over twelve thousand Iroquois listed on tribal roles living in New York State. About half of these live on seven reservations in northern and western New York. In addition there are several thousand more living on reservations in Canada and Wisconsin. The following are some significant dates in Iroquois history interspersed with quotes from their leaders and interested commentators.

c. 1300 The Iroquois Confederacy founded. The alliance between the five nations was the first democracy founded upon the concept of peace between nations.

The Onondaga lords shall open each council by expressing their gratitude to their cousin lords, and greeting them, and they shall make an address and offer thanks to the earth where men dwell, to the streams of water, the pools, the springs, the lakes, to the maize and the fruits, to the medicinal herbs and the trees, to the forest trees for their usefulness, to the animals that serve as food and who offer their pelts as clothing, to the great winds and the lesser winds, to the Thunderers, and the Sun, the mighty warrior, to the moon, to the messengers of the Great Spirit who dwells in the skies above, who gives all things useful to men, who is the source and the ruler of health and life.

Then shall the Onondaga lords declare the council open.

From the Constitution of the Iroquois

1609 Champlain expedition into Iroquois country. Mohawk leaders were killed in their first encounter with the firearms of the white man.

1615 Champlain and his Huron allies defeated by the Onondagas.

1618 First treaty negotiated between the Iroquois and the Dutch.

1664 English took over control of New York and became allies of the Iroquois.

1667-69 A large contingent of Mohawks migrated to Canada and settled at Caughnawaga, Quebec.

1683 Expedition by Gov. De L. Barre against the Iroquois ended in defeat for the French.

We carried the English into our lakes to trade there with the Utawawas and Quatoghies [Ottawa and Huron] as the Adirondacks brought the French to our castles to carry on a trade, which the English says is theirs. We are born free. We neither depend on Yonnondio nor Corlear [the Canadian governor nor the New York governor].

We may go where we please, and carry with us whom we please. If your allies be your slaves, use them as such. Command them to receive no other but your people. This belt preserves my words. . . .

Hear, Yonnondio: what I say is the voice of all the Five Nations: hear what they answer. Open your ears to what they speak. The Senecas, Cayugas, Onondagas, Oneidas, and the Mohawks say, that when they buried the hatchet at Cadarackui [in the presence of your predecessor] in the middle of the fort, they planted the tree of peace in the same place, to be there carefully preserved.

Hear, Yonnondio: take care for the future, that so great a number of soldiers as appear there, do not choke the tree of peace planted in so small a fort. It will be a great loss if after it had so easily taken root you should stop its growth, and prevent its covering your country and ours with its branches.

Big Mouth (Onondaga) to Le Febre de la Barre, Governor of Canada, 1684

Penn's Treaty with the Indians by Benjamin West

1687 Gov. General De Nonville attacked the Iroquois and took several chiefs captive. After destroying several Seneca villages he retreated to Canada.

1697 Gov. Count De Frontenac led an expedition against the Onondagas only to find they had abandoned and burnt their village.

1710 Three Mohawks and one Mohican Chief were received in the court of Queen Anne of England as the "Four Kings" of the new World.

Courtesy Philadelphia Academy of Fine Arts.
Gift of Mrs. Joseph Harrison

The Five Nations think themselves superior to the rest of mankind, and call themselves Onguehonwe; that is, men surpassing all others. This opinion, which they take care to cultivate into their children, gives them that courage, which has been so terrible to all the nations of North America; and they have taken such care to impress the same opinion of their people on all their neighbors, that they, on all occasions, yield the most submissive obedience to them. I have been told by old men in New England, who remembered the time when the Mohawks made war on their Indians, that as soon as a single Mohawk was discovered in the country, their Indians raised a cry from hill to hill, A Mohawk! A Mohawk! upon which they all fled like sheep before wolves, without attempting to make the least resistance, whatever odds were on their side.

The History of the Five Indian Nations (Cadwallader Colden, 1727)

1711 Tuscaroras accepted as the sixth nation of the Iroquois Confederacy.

1735 Handsome Lake, Seneca prophet born. Founder of the Gai'wiio or the New Religion of the Iroquois.

Whiskey [is] a great and monstrous evil and has reared a high mound of bones. . . You lose your minds and whiskey causes it all. . . So now all must now say, "I will use it nevermore."

The married should live together and . . . children should grow from them. . . Man and wife should rear their children well, love them and keep them in health. . .

Love one another and do not strive for another's undoing. Even as you desire good treatment, so render it.

Handsome Lake (Seneca) 1800

1750 Red Jacket, Seneca leader — born.

1755 Chief Hendrick, Mohawk leader was killed at the battle of Lake George fighting for the English.

Colonel Guy Johnson by Benjamin West — *The National Gallery of Art, Washington, D.C.*

Brethren, you have asked us the reason of our living in this dispersed manner. The reason is your neglecting us for these three years past. [Dramatically tosses stick over his shoulder] You have thus thrown us behind your backs and disregarded us; whereas the French are a subtle and vigilant people, ever using their utmost endeavors to seduce and bring our people over to them. . . .

Brethren, the Governor of Virginia and the Governor of Canada are both quarrelling about lands which belong to us; and such a quarrel as this may end in our destruction. . . [You] have made paths through our country to trade, and built houses, without acquainting us with it. They should first have asked our consent to build there, as was done when Oswego was built.

Brethren, it is very true, as you told us, that the clouds hang heavy over us, and it is not very pleasant to look up. But we give you this belt to clear away all clouds, that we may all live in bright sunshine, and keep together in strict union and friendship.

Hendrick (Mohawk) to Albany Congress, 1754

1756 A group of Mohawks from the village of Caughnawaga migrated up the St. Lawrence River and settled at Akwesasne, the present site of the St. Regis Reservation.

1763 The French eliminated from the North American continent by the English with the assistance of the Iroquois.

1768 First treaty of Fort Stanwix between the Iroquois Confederacy and the English. Property line of 1768 set limit on western settlements in New York.

1774 Sir William Johnson, Superintendent of Indian Affairs for the Northern District and trusted friend of the Iroquois died.

1777 The Iroquois entered the revolutionary war after two years of relative neutrality.

1777 British Forces under the direction of Barry St. Leger with the help of the Iroquois set to control the Mohawk Valley.

Sir, I send you by one of our runners the child which we will deliver, that you may know whatever others may do I do not make war on women and children. I am sorry to say that I have those engaged with me in the service who are more savage than the savages themselves [Referring to Walter Butler and his Rangers].

Joseph Brant (Mohawk) in a letter to the American commandant after an attack on Fort Hunter, 1777.

1778 Joseph Brant raided Cherry Valley.

1779 Clinton-Sullivan campaign ordered by General Washington to destroy the homelands of the Iroquois.

1784 Peace treaty signed at Fort Stanwix between the Iroquois Confederacy and the United States. Boundaries are drawn for the Six Nations.

1784 The Haldimand Proclamation deeded the Grand River Valley in Ontario to the Iroquois in return for their assistance to the British.

1785-1846 The Oneida Nation made a total of 26 treaties with New York during this period. At one time the Oneidas held large tracts of land in central New York but as a result of these treaties were reduced to a mere 32 acres. A large number were removed to Green Bay, Wisconsin.

Not only have every principle of honesty, every dictate of humanity, every Christian precept been violated by this company . . . but the darkest frauds, the basest bribery, and the most execrable intrigues which soulless avarice could suggest, have been practiced, in open day, upon this defenseless and much-injured people. . . It is no small crime against humanity to seize their firesides and the property of the whole community, without an equivalent, and against their will; and then drive them, beggared and outraged, into a wild and inhospitable wilderness.

Lewis Henry Morgan referring to the Ogden Land Company which held a "preemptive right" to remaining lands of the Seneca Nation, 1850.

1788-1829 Onondagas signed six treaties with New York ceding large portions of their holdings.

1789 Treaty of Fort Harmar signed between the Six Nations and the U.S. reconfirming the articles of 1784 agreement.

1789-1795 The Cayugas negotiated three treaties with New York. The lands originally reserved for the Cayuga people were all sold to the state during this period. Some Cayugas removed to the west and Canada; some remained behind and settled with the Senecas.

1790 Federal Government enacted the first of a series of Indian Non-intercourse Acts prohibiting states from conducting treaties with Indians.

When your army entered the country of the Six Nations, we called you Caunotaucarius, the Town Destroyer; and to this day when that name is heard, our women look behind them and turn pale, and our children cling to the knees of their mothers. Our councilors and warriors are men and cannot be afraid; but their hearts are grieved with the fears of their women and children, and desire that it may be buried so deep as to be heard no more. When you gave us peace, we called you father, because you promised to secure us in possession of our lands. Do this, and so long as the lands shall remain, the beloved name will remain in the heart of every Seneca.

Cornplanter (Seneca) to George Washington, 1790

1794 Treaty between Six Nations and the U.S. diminished the size of lands reserved in 1784-1789 and defined the boundaries of those reserved lands.

1796 Treaty with the Seven Nations of Canada and the U.S. that defined the lands reserved for the St. Regis Mohawks.

1797 Mohawks who had moved to Canada relinquished claim to New York State.

1802-1820 Senecas signed three treaties dealing away a portion of the reserved lands to New York.

The first subject to which I would call attention of the governor, is the depredation daily committed by the white people upon the most valuable timber on our reservation. . . Our next subject of complaint is the frequent thefts of our horses and cattle by the whites and their habit of taking and eating them as they please and without our leave. . . In our hunting and fishing too, we are greatly interrupted. Our venison is stolen. . . . The fish, which, in the Buffalo and Tonnewanto creeks, used to supply us with food are now — by dams and other obstructions — prevented from multiplying. . . The greatest source of all our grievances is, that the white men are among us.

Red Jacket (Seneca) in a letter to Governor DeWitt Clinton, 1821.

1807 Thayendanegea or Joseph Brant, Mohawk leader of the French and Indian War and the Revolutionary War died in Brantford, Ontario.

1816-1845 The St. Regis Mohawks signed a series of 5 agreements with New York State greatly reducing the size of their reserved lands.

1838 Treaty at Buffalo Creek made provisions for the eventual removal of Iroquois people to Kansas. Provisions of the treaty were never enforced.

1846 Senecas adopted a constitution to govern the Allegheny, Cattaraugus, Cornplanter and Oil Springs reservations as the Seneca Nation of Indians.

Red Jacket by unknown painter
Courtesy Shelburne Museum, Shelburne, Vt.

The Code of Handsome Lake by Ernest Smith
Courtesy American Indian Treasures, Inc.

The Empire State, as you love to call it, was once laced by our trails from Albany to Buffalo — trails that we had trod for centuries — trails worn so deep by the feet of the Iroquois, that they became your roads of travel, as your possessions gradually ate into those of my people. Your roads still traverse those same lines of communication. . . Have we, the first holders of this prosperous region, no longer a share in your history? Glad were your fathers to sit down upon the threshold of the Longhouse. Had our forefathers spurned you from it, when the French were thundering at the opposite side to get a passage through, and drive you into the sea, whatever has been the fate of other Indians, the Iroquois might still have been a nation, and I, instead of pleading here for the privilege of living within your borders, I — might have had a country.

Peter Wilson (Cayuga) Address to New York Historical Society, 1847

1851 Louis Henry Morgan published classic "League of the Iroquois."

1855 New York assumed responsibility for the education of Indian children.

1857 Tonowanda band of Senecas purchased their present reservation with money for their relinquishment of rights to some lands in Kansas.

The white man has been the chief obstacle in the way of Indian civilization. The benevolent measures attempted by the government for their advancement have been almost uniformly thwarted by the agencies employed to carry them out. The soldiers, sent for their protection, too often carried demoralization and disease into their midst. The agent appointed to be their friend and counselor, business manager, and the almoner of government bounties, frequently went among them only to enrich himself in the shortest possible time, at the cost of the Indians, and spend the largest available sum of the government money with the least ostensible beneficial result.

Donehogawa (Ely Samuel Parker, Seneca) from a Report to President Grant, 1870

1888 The St. Regis Mohawks admitted to the Iroquois Confederacy as the Eastern Doorkeeper, occupying the position vacated when the Mohawks removed to the Grand River Reserve in Canada.

1919 United States vs. Boylan decision stated that the New York Indians were wards of the Federal Government. This clarified several points but severely clouded the jurisdictional problem.

1922 Everett Commission report submitted to the Legislature and rejected. The report attempted to define the status of the American Indian in New York.

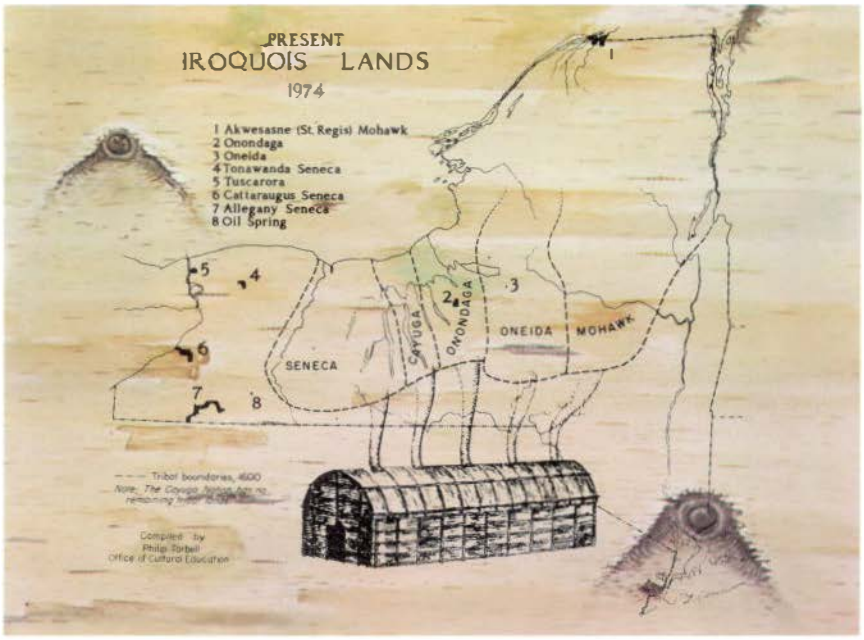
1924 Citizenship Act made all Indians citizens of the United States. Strong objections voiced by the Iroquois people.

1932 The Tonowanda Senecas integrated into the Akron school system, the first group of Indians in New York to do so.

A few years ago you won a great war. We fought by the side of your generals. We were told that we were fighting for democracy, for the rights of little people! Your generals still live to bear testimony to our fidelity. Yes, the blood of our warriors was shed on the battlefields of France, Germany and Japan for what you then told us was our common cause, Democracy! Why, then, should you wish to break the sacred agreements be-

tween your country and the Six Nations? Our sacred treaties have been broken like saplings and your land speculators came forth to cheat and rob us, your former protector, once a great and powerful nation, the Iroquois. What harm can our retaining our reservations and treaties do to you? What are a few thousand acres of land to a nation like the United States? Neither have you any lack of wealth that your people need become rich at our expense. Neither have we given you any grounds of complaint against us.

Mohawks of the St. Regis Reservation to the U.S. Government, 1948



1954 Centralization integrated a large number of Indian students into neighboring school districts.

1958 Army Corps of Engineers received go ahead to build Kinzua Dam that would flood Seneca lands reserved to them by the treaty of 1794.

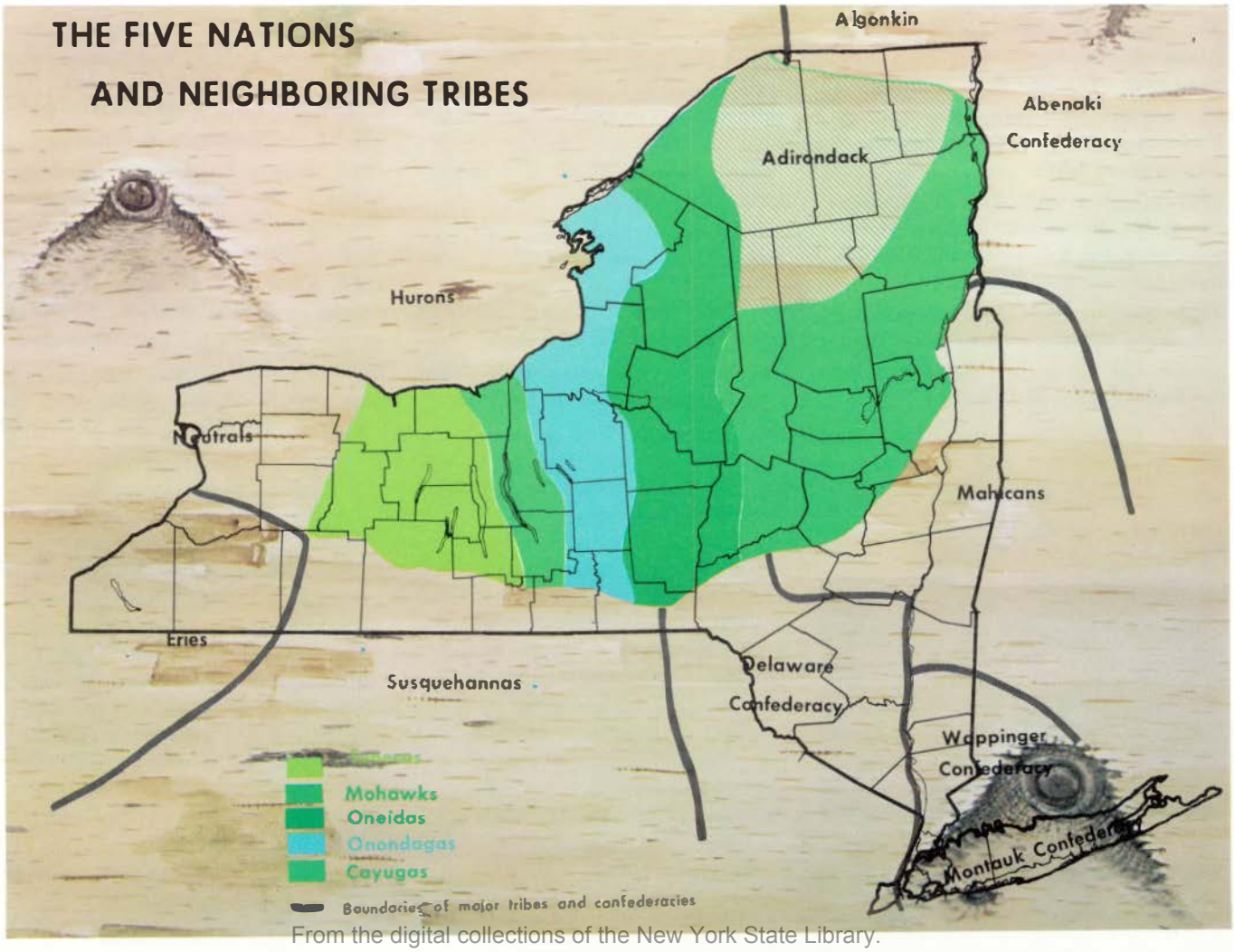
1958 The New York Power Authority quietly started proceedings to take over 1383 acres of Tuscarora land for use as a reservoir for the Niagara Power Project.

1968 St. Regis Mohawks held their children out of school for several days demanding representation in school decisions affecting their children.

1968 Mohawks from Akwesasne blockaded the International Bridge across the St. Lawrence River protesting violation of the Jay Treaty of 1794.

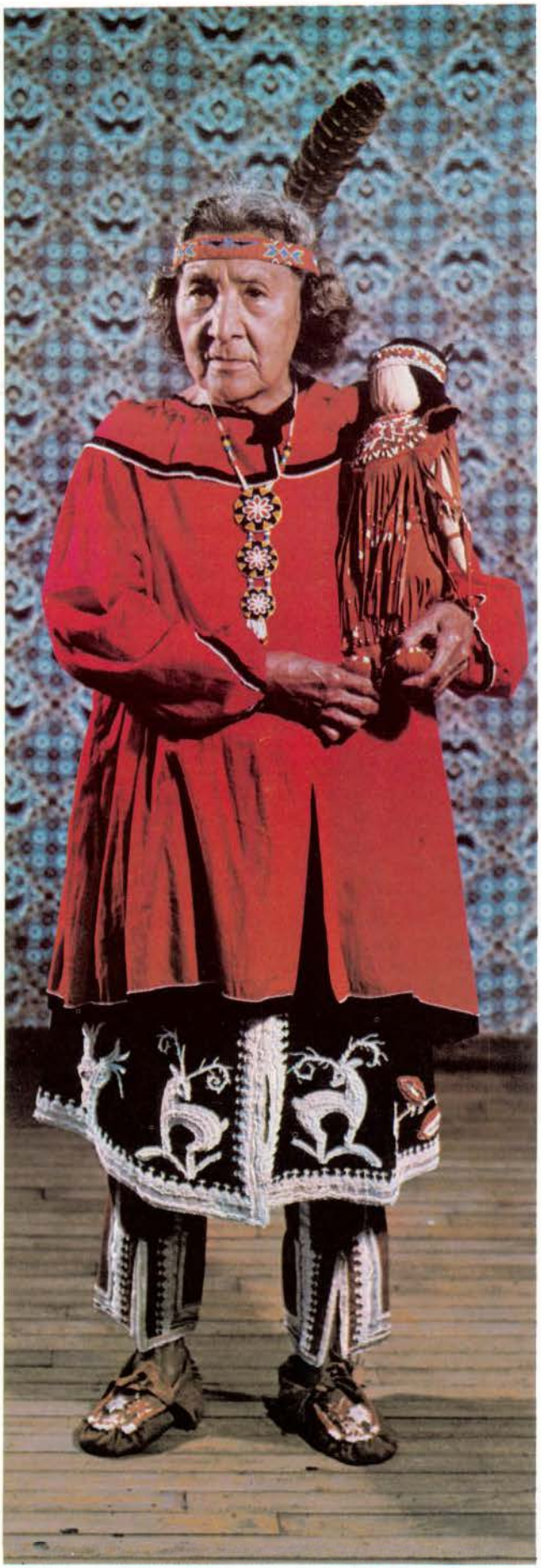
1974 The Oneida Nation of New York won Supreme Court Decision against New York State concerning federal jurisdiction over treaties with New York.

1974 A group of Mohawks occupied a former girls' camp at Eagle Bay (Moss Lake) in the Adirondacks claiming aboriginal title to it.



Separate Yet Sharing

by Ann Lewis
(Mohawk-Delaware)



John Goerg

Iroquois women — active participators in all phases of the society. The photo is of Mrs. Harriet Brooks of the Seneca Nation, who is wearing the traditional Iroquois woman's dress made by her sister Mildred Garlow.

International Women's Year has resulted in a spate of articles concerning woman's role in society. In these writings, the role of native American women, particularly Iroquoian women, has not been explored. Perhaps this is due to a concentration on "majority" culture patterns, with minimal attention to minority cultures.

Prior to the influences of European society, Iroquoian women held a position of import in Iroquois society. When she married, her husband moved into her lodgings or household. All household property and tilled fields belonged exclusively to her. Children produced from this union, inherited their clan membership and tribal identification through their mother. In affairs of government, it was the women of the clan who nominated the male candidates for Chieftanship. While in religious affairs, women held positions of trust, such as faith keeper. It was she who practiced healing arts through the use of native plants and herbs. With varied, important duties, the role of women was clearly defined. Since she need not compete with the male, women had a sense of security in their roles and in their femininity.

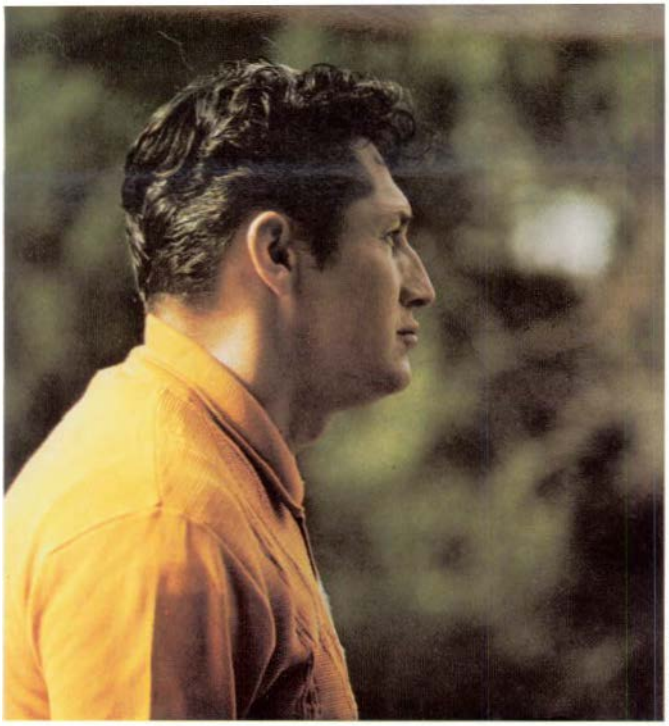
As European culture began to touch the Iroquois, it resulted in greater "cultural shock" for the Iroquois male, since the European manner was to deal "man to man." Women were relegated to a role of lesser importance by Europeans and thus could go about their duties unhindered by any "foreign" influences. Thus, Iroquois women have been able to maintain, in large part, their identified roles and functions.

In New York State, at present, Iroquois tribal groups (Seneca, Tonawanda, Cayuga, Tuscarora, Onondaga, Oneida) still reckon tribal identification and clan membership through the female. It is only the St. Regis Mohawks who use the male line. In those tribal groups practicing traditional government, the female members retain their roles of nominating and deposing leadership. While in traditional ceremonials, the role of women remains much the same. As a result, Iroquois women are generally unconcerned with the liberation movement, preferring instead, to remain behind the scenes in governmental affairs, but utilizing their skills in reforms in fields such as education, health, nutrition, child-care, and the like.

The modern Iroquoian woman retains many of the characteristics of her ancestors — she can affect change without competitiveness; she accepts her role as a viable one; she has pride in her femininity; and she maintains her sense of security. With these qualities, Iroquois women have contributed to the perpetuation and continuance of native culture, while at the same time, advocating change in areas oriented toward family priorities.

Iroquois women have become the classroom teachers, the nurses, the social workers, the language teachers — in short, those professional workers advocating change in social conditions. Yet, they have not slighted their equally important roles of wife and mother. The Iroquoian concept of family continues to remain an important facet of Iroquoian lifestyle.

The Iroquoian woman exemplifies that delicate balance between home-maker and earth-shaker toward which the women's movement has been striving. Since Iroquoian women have been practicing this mode of living for better than five hundred years, they have been able to accept and be accepted for what they are — integral, individual, important human beings.



Wayne Trimm

From "The Reservation" scheduled for publication April 1976. Copyright 1976. Syracuse University Press.

The Feast

by Theodore C. Williams
(Tuscarora)
(Hroos'ska (T))

I was told by the old timers on the Tuscarora reservation that the New Year's Feast used to fall more near the end of January or the first part of February, whenever the fifth day of the new moon fell and was called the Midwinter Festival. Maybe it was strictly Iroquois custom, but if so, the Tuscaroras latched on to it and dragged it up closer to Christmas. In fact, I went farther than that and celebrated Christmas and New Years as one whole big ball.

We got to the church early, which was about half an hour later than last Sunday's announcement time for starting. As others got there, all the kids and men helped bring in the bushels and boxes of presents and started dumping them in the front of the church and trying to get the boxes and baskets back to their owners.

If Indians only went to church once a year, it was on this night. And most everybody brought from twenty to sixty or more presents and pretty soon only tall men could heave the box or basketful of presents to the top of the pile. Mostly, they slid back down. If people brought glassware, we were usually pretty careful about picking up the broken pieces and sneaking them out the back way.

The programs were pretty much the same every year and we tried to rush through that part to get at the presents. A few tunes by everybody like Silent Night kicked it off and I always tried to work my way next to Bee-land to hear him pray. He had a command of the Tuscarora language like an English professor does of English only Bee-land was like a poet too. Like, he prayed poetry. After that, girls and boys of different sizes and shapes got up and said pieces. I'd run up and say something. It didn't matter much what you said because, what with babies crying and everybody making noise, nobody could hear good anyway and they'd clap even if you got scared and cried. Then we'd do the play of the manger scene. One time I was one of the good shepherds and in the back room I tripped over the overflow of presents and broke my ironwood staff. Lucky it was ironwood or it might have broke clean through and as it was, when I went up next to the doll in the crib, it looked like I was giving it a great big question mark for a present. Another time Bedbug's mother sent him to church because she said he needed it and Bedbug said he wanted to be in the Christmas play. Lulu was the director and she was so scared that Bedbug would swear on the stage that she told him just to bring a bushel basketful of hay. That would be his part. When he got to the church he had trouble getting the basket through the doors. Just then Melchy Henry, the visiting minister came up behind him and said, "What's the matter son?"

Bedbug says, "I brought this hay for Jesus Christ and I can't get the goddam door open."

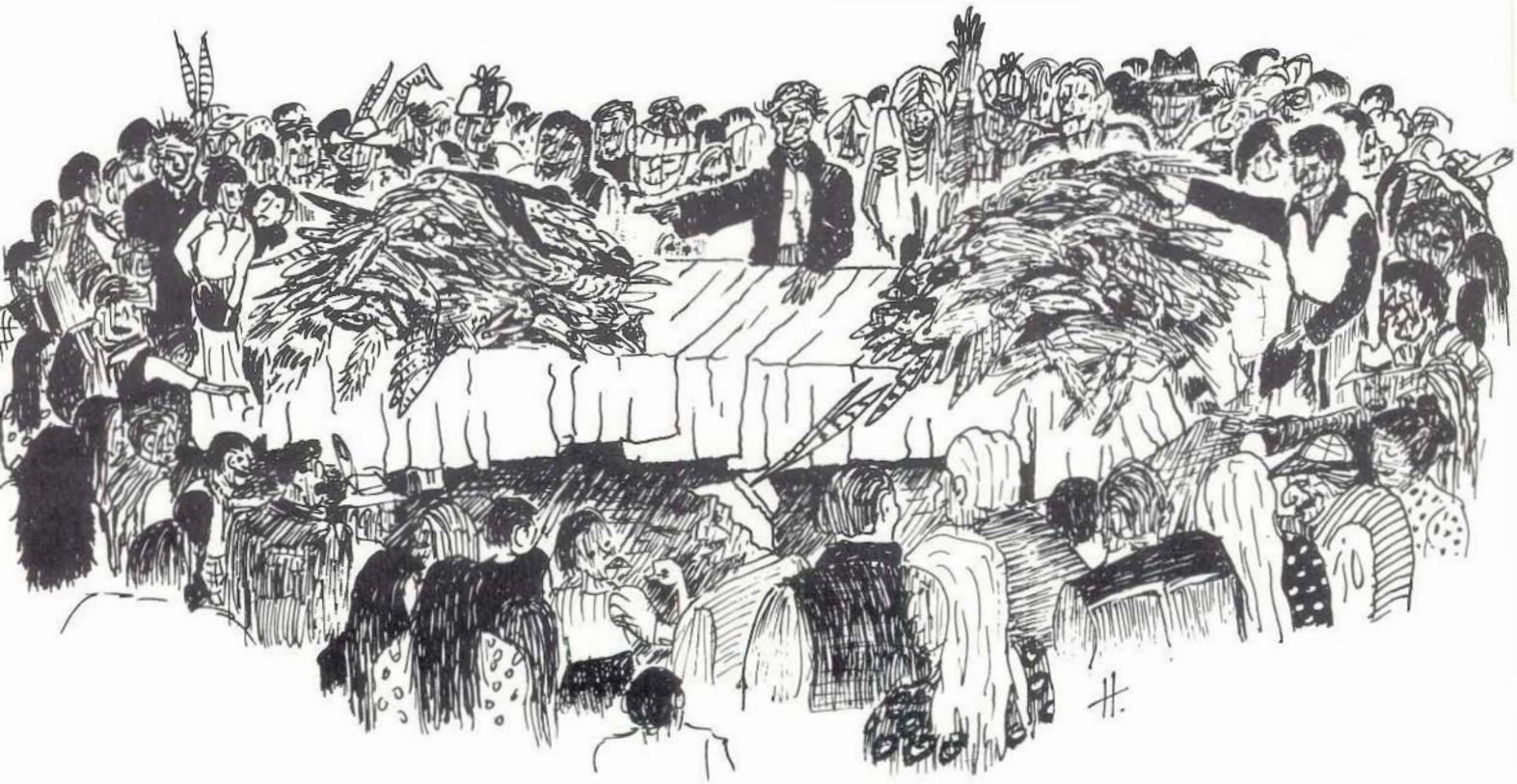
Next came the giving out of the presents and here's how that was done. Every present had to have the name of who it was for shouted out, before it could be taken to that person. So two women were appointed to yell until their voices gave out. Then some man referee let in a substitute.

It was my habit as it was most others too, to give trick presents. Like I might transfer the label from a tin can of peaches with the pretty pictures of peaches on it to a can of surplus meat and give that away. Once I found a lead brick that weighed seventy pounds and I painted it gold and put a red ribbon on it and gave it to Jumbo. I had to have Ju-gweh carry it up the back stairs it was so heavy. Or, for instance, I happened to look up as the names were being called out and Gothhoff (give me) was holding up a toy bugle and yelling "Lye Man." Lye Man had just been in a car accident and had all his front teeth knocked in. Another time Mars was holding up a pair of four-runner kids' ice skates and yelled out Annie Dink's name. Annie Dink could hardly walk because she weighed, maybe two-fifty. Naturally, it was late by the time that these mountains of presents were given out, even though there was a steady stream of kids taking arm loads 'round and 'round the church. It was almost impossible to hand anyone their present and mostly you had to throw it at them. I was delivering presents and had both arms pretty well full when Nick-nick, who was delivering also, threw a pair of socks, which were to me, at me. He was a fair distance away and the socks flew good, because they had a long blue ribbon tied to the top. When I let them hit me on the head, BONK! I found out a better reason why they flew so good. There were two Brazilian nuts in each toe. Another time I was really loaded down and somebody gave me one of my presents in a huge box. Finally I struggled around with this even bigger load and opened the big box. I kept unwrapping and unwrapping and unwrapping and unwrapping until I came to my present. It was five black jelly beans with a note, "Take one a day. With love, Jumbo."

After all the presents were finally given out. Bee-land would pick his way through all the ribbons and wrappings and wave his arms around for silence,

which never came. He would he trying to make the announcements about The Feast. Everybody knew what they were because Bee-land was nearing a hundred and he had given the same announcements every year for so long that I was never able to find anyone who ever heard of anybody else ever giving The Feast announcements except him. And talk about mumble. On a clear night, if every frog and cricket was dead, you still couldn't make out what Bee-land was trying to say in English. He liked children and he spoke English for the benefit of those that might not know Tuscarora which, of course, for sure, now, they didn't know what he said.

All he was telling about was, when The Feast was, what day The Hunt would be, who would be collecting food donations on what road, what game was legal in The Hunt, who all the cooks were, who the captain of the young men in The Hunt contest would be, who the captain of the old men would be, who would make the corn bread, who was going to debate for the young men, who for the old men, (which, he always named himself), what the rules were to be on the old man's team, and so on and so on. You know, things like that. It may seem like a lot of important things not to be hearing but everybody knew what had been going on for years and years. Probably why Indians don't have a written language. Barely spoken. At least every word seems dragged out to me . . .



[The Hunt, a one-day event in which two teams of hunters consisting of the old men (married men with children) and the young men (men without children, regardless of age) compete in collection of game for the feast, has been deleted because of space limitations. A count is made of the game taken by each team. After the feast a debate is held over the merits of each team's contribution. — Ed.]

It was after eight when Duck and I approached the council house. We could hear the sounds of things going on, mixed with yells and laughs, from almost a mile. In the long low shed that used to be for horses and buggys, there was much activity. Three mammoth black iron corn bread kettles were firing up. It was funny how the excitement started so early. I mean, the corn bread loaves wouldn't be going into the water for a couple of days yet and here they were starting to heat the water already. Boiling water then, is just as exciting as Bee-land praying or a little child playing with fire by the kettles or a hen pheasant and an empty shotgun. That's what The Feast was all about.

The area was well lit up from the poppy flames under the pots. Flashes of shiny ax heads flew and chips flew and jokes flew. A couple hundred Indians were in sight.

If things were in high gear outside, then things were in overdrive in the council house. Or they were stripping the gears.

The council house was a jungle of long tables full of food in different stages of readiness. Indians of every sex, size, shape, color, smell, sound, and description were swarming like doctors and nurses; each performing the most important operation ever performed at each table. In the kitchen, where the baking took place, it was 90° in the shade and windows were open.

Under the table was straw, and quilts that the Indian women had made. Many Indians never went home and slept there.

They slept there and kept fires going and turned the drying corn or stirred the eyes out of the corn in the hardwood ashes or told ghost stories or brought in more wood or ate or emptied garbage or made more or kicked dogs out or let them in or chased kids away from a cake so they could lick off some frosting themselves, or slept, or pounded corn, or shelled it, or fought over the backhouse, or did nothing. Indians came and went and much food came in, prepared, for the workers. Some of it was cooked in the kitchen and you might see a woman busy with one hand holding her baby, who was, in turn, busy sucking on a tit, and with her other hand, the woman might be putting pigs' feet into the corn soup so she could eat. Or some woman might take time out to *have* her baby.

The Feast itself is just plain eating. If you get full while you're eating, and you see something better that you didn't get a taste of yet, don't think you can go outside and run around the council house a few times, to settle your food, and then come back in and eat more. Eat more right away, because others are jammed at the door waiting for the next serving.

If you're late though, don't worry. The stories and jokes that you will hear while you're waiting in line will make the time go fast and before you know it it'll be dark. Servings go on until everyone that wants to eat, eats.

If you happen to get into the first serving and you're a fast eater and you get done too soon and don't know what to do, don't worry. There's always a sporting event planned for such people as you. Whatever you do, don't go to bed yet. The main attraction is still coming.

Outside it's pitch dark but in the council house it's not. The gas lamps have been fueled and pumped up and hooked back up with the long hook-back-upper pole and they are sizzling and sputtering away. The tables have been folded and put away and the food divided up by everybody and the folding chairs in place. More chairs have been borrowed from the church and the mission. Every chair has somebody sitting on it and every standing space against the wall has somebody standing on it and the two long balconies on each side of the long building are so full of people that they spill on down the stairs going up to them. Maybe it's around eight o'clock. The Debate is about to begin.

Each debater speaks three times.

I-ee-sog is the spokesman for the young men and Bee-land for the old men . . .

[*The debate has taken place with each spokesman enthusiastically arguing the position of his own group. Bee-land, of the old man's team, is about to conclude his final speech. — Ed.*]

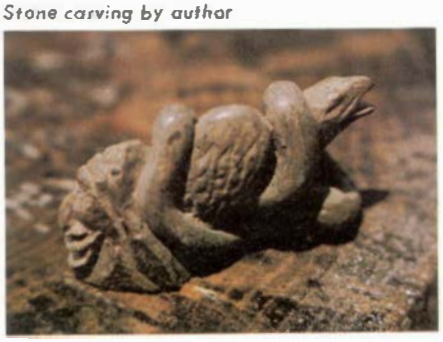
Everyone in the council house could feel that the Midwinter festival was almost over with, for one whole year. The Hunt and The Debate were all part of the celebration and whoever brought in the most pieces of game, young or old, didn't really matter. So, now, the young, too, joined the laughter. Bee-land had stopped for a moment because his mouth had become dry. He went to the drinking water and dipped out some water from the pail and drank from the dipper. Then he went and squared himself up in his dead-center speaking place and wiped his nose on his sleeve. "Yes it's been a great feast," he said. "Some of it is still on my face." Then laughter again because everyone figured that Bee-land had probably forgotten that he had a suit on and to keep that spirit going, Bee-land pretended to smell his sleeve. "Serviceberry jam," he announced. Next, he squared himself up again and put his hand up to quiet everybody down. "Now," he said, "it's time to point something out to everyone here. The purpose of The Hunt is to provide the meat of The Feast. Let's forget about the crow found in the young men's bag. Let's forget about the young man who leaped up on the old men's table with a mouse in a bag. Let's forget about all those cat scratches on his hands. We *know* it's not easy to take a mouse away from a cat. Let's just forget that. Let's pay attention instead, to the team that brought in the *most* meat for The Feast. Now we all know that the whole pile of game brought in by the young men's team did not weigh as much as the *first* piece of game counted by the old men's captain. I'd say the deer ought to be worth a hundred pieces of game. Without being a hog—let's say fifty then. Fair enough?" Lots of noise came down from the young folks in the balconies. "Oh all right then, Bee-land said, "we'll let nature decide." He stepped back and stood up on one of the stump chairs. "I'll drop an object to the floor," Bee-land declared. "If it touches the floor the young men win. If it doesn't, the old men win." So much interest was created in what he had said that everyone fell silent and craned their necks to see better. Bee-land pulled his hand out of his baggy suit pocket and held his arm out and dropped an object to the floor. It never got there. It was a small bird, and half way to the floor, it swooped up into the rafters. Bee-land just stood there and smiled his crooked smile. The Debate was over.

As Bee-land made his way back to his seat amid the noise of the approval of the people in the council house, Big Egg joined in with a light, rapid beat on the water drum. It was not really noticeable until everyone else quieted down. The first person to make any movement was Beulah Land, the cornbread cook. She pattered out in her moccasins into the area that Bee-land had just left from. She twirled around a couple of times and her apron, which she still hadn't taken off, fluttering, she broke into the drum beat with the swish-swish noise of the women's dance. Several whoops broke out as other women danced in behind her until there was a full circle. The side-to-side movement of their feet sounded like dry leaves, if dry leaves could dance in time to the drum.

The women received great cheers and when they finished, some of the front row chairs were folded and from then on, everybody danced that wanted to dance. I danced or drummed or rattled until I was pretty well winded. Suddenly I remembered my skis. They were still at Duck Soup's and I was thinking about how Duck's dog chewed everything chewable up. I hurried out of the council house into the night. But then I slowed up quick because I couldn't see anything and I realized that Chewer would already have chewed my skis if he was going to. Behind me, coming from the council house, I could hear two voices starting to sing the happy wiganawdeeyoot song and before cheering drowned the voices out I recognized who was singing, I-ee-sog and Bee-land.

I was just beginning to see better when something began banging me on the leg. It was Bluedog's hind quarters. He had come to the council house with Father and was coming home with me. "Come on!" I said to Blue, "I'll race you." And I ran as fast as I could. But as fast as I could run, I didn't have a chance. But then, after all, we were on Dog Street.

Stone carving by author



Wayne Trimm

A Portfolio of Iroquois Art and Craft

by Gerald Pete Jemison
(Seneca)

Photos by John Goerg, Lillian Samuelson and Wayne Trimm

WE are Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora. We call ourselves the Hodenosawnee. Today we live on reservations and in cities throughout New York State and in southern Ontario.

Often I have been asked by non-Indian people, "Aren't all the best Iroquois craftsmen gone?" or "Why don't you make these things anymore?" referring to our traditional crafts. The answer, of course, is that these skills never departed from us and today, as we have become more aware of our traditions, we have developed many skilled craftspeople actively producing traditional beadwork, carvings from wood, stone and bone, basketry, corn husk craft, silver work, pottery, quilting and leatherwork. In addition many of our people produce paintings, drawings and photography. The result is that we have developed Iroquois craft to the level of the finest art anywhere. In addition, many of our young artists, employing recently adopted art forms and media, produce paintings or sculpture based on traditional themes.

Every reservation has its special craft. Akwesasne at St. Regis in northern New York has, for example, by far the greatest number of basket makers and has produced a wide variety of baskets for many years. Mary Adams of Akwesasne is famous for her baskets. The Six Nations Reserve in southern Ontario is noted for its silversmiths.

Ironically enough, with the renewed interest in Iroquois arts and crafts have come some restrictions in sale. One example is the traditional false face mask, so closely identified with Iroquois ceremony. Because many people of the Longhouse belief do not like to see the faces photographed, depicted or displayed, many carvers do not wish to sell this type of work to non-Indians.

Why the increased interest in Iroquois arts and craft? In my opinion, our ability to live in harmony with a natural environment has caused the modern non-Indian world to reflect upon itself and admire what we possess and they don't. And if they cannot possess what we have, at least they can possess the results of our craft which, made for the most part from natural materials and incorporating animals and plant forms, show a concern, understanding and appreciation of the earth.

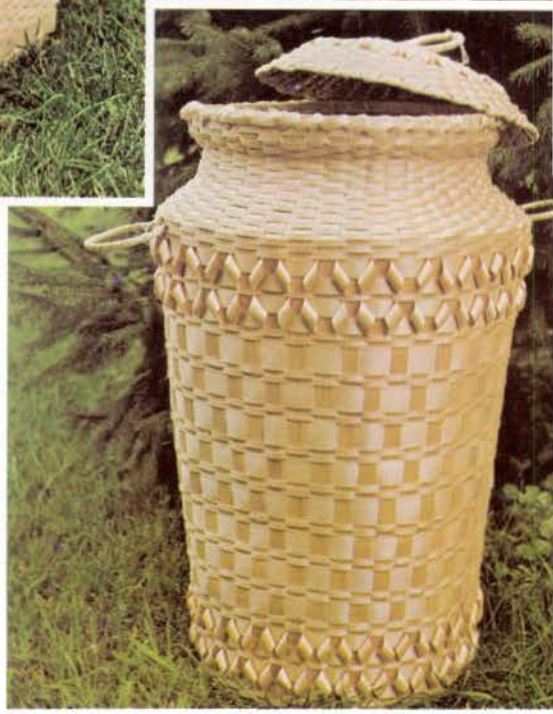
The works chosen here represent various forms of art among the Iroquois, both traditional and modern. Most of the artists are resident Iroquois in New York State.

Mary Adams

(Mohawk)

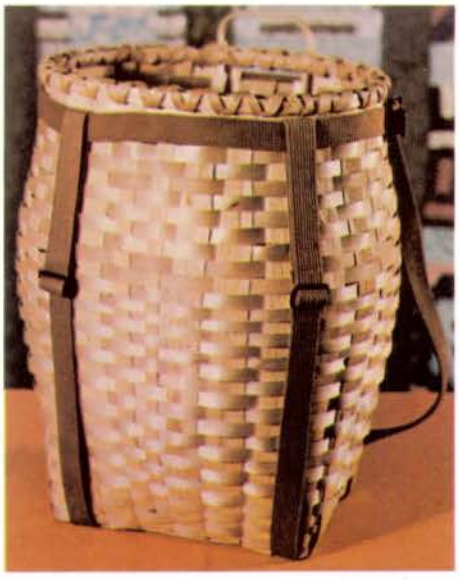
Basketmaker

Bassinet



Hamper

Small Baskets



Pack Basket

Mitchell George

(Mohawk)

Basketmaker

Milton Lay

(Seneca)

Craftsman

Lacrosse Sticks

Bear

Duffy Wilson

(Tuscarora)

Sculptor

Flying Head with Figures

To-ta-da-ho (two views)

Oren Lyons

(Onondaga)

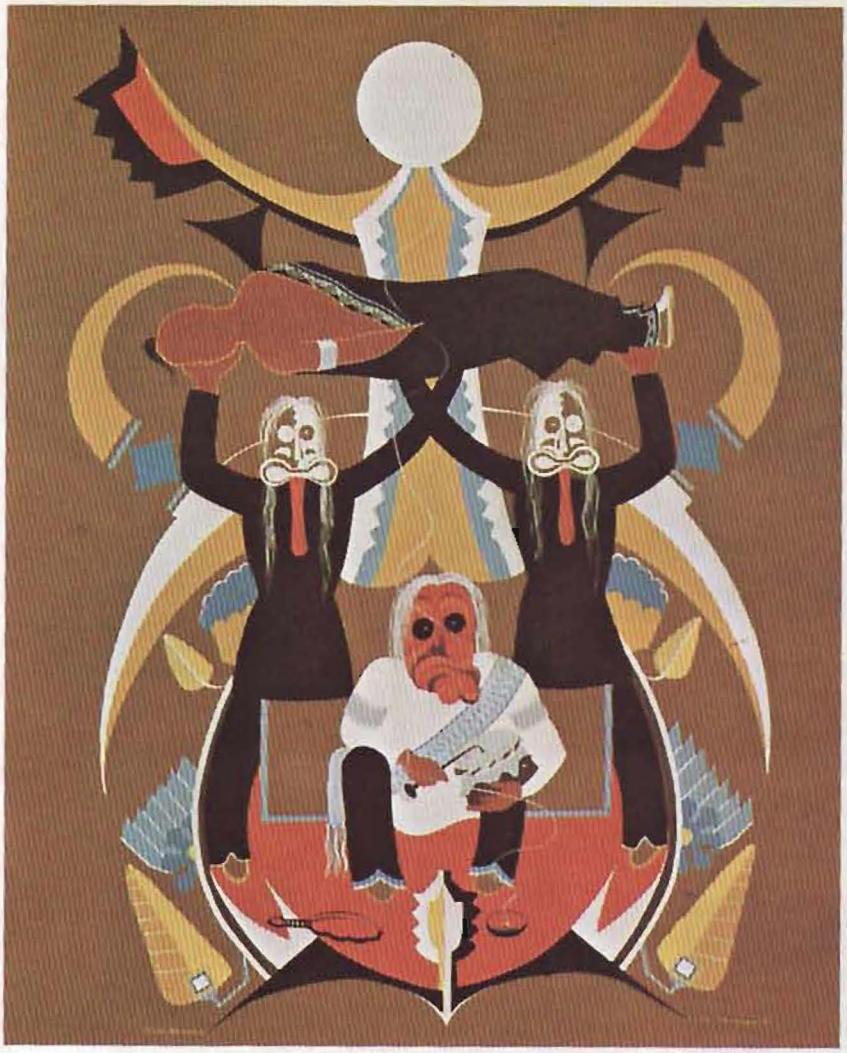
Painter

The Hunter Eagle Dance

The Four Winds

Tom Two Arrows (Lenni-Lenape)

Painter and Craftsman



Mask Ceremony

Operating a primitive Indian drill

Knife

Beaded Bag

Skin Painting —

Flute (wood and carved stone)

Bear

— Human Figures

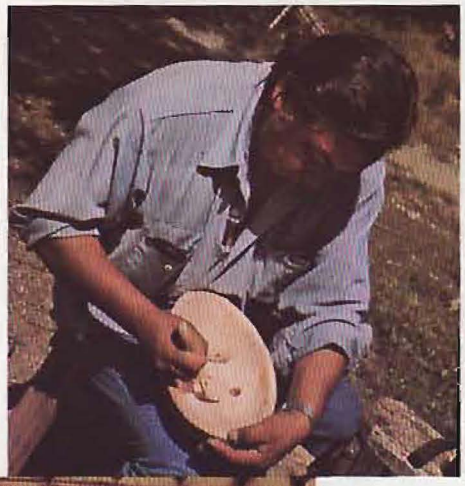
Harold Farmer (Onondaga)

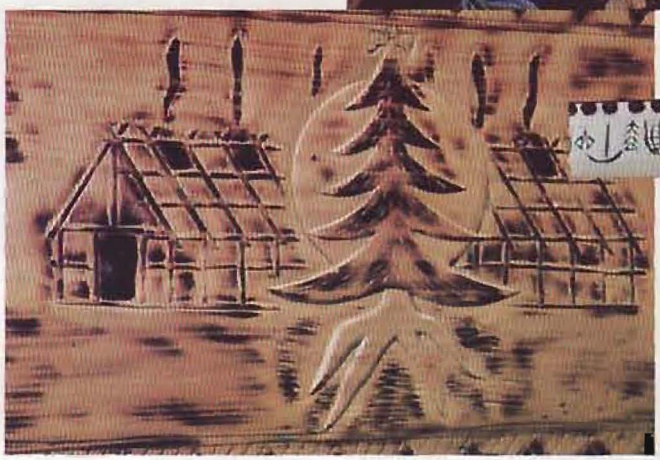
Wood Carver

Richard Chrisjohn

(Oneida)

Wood Carver





Longhouse Bench (detail)

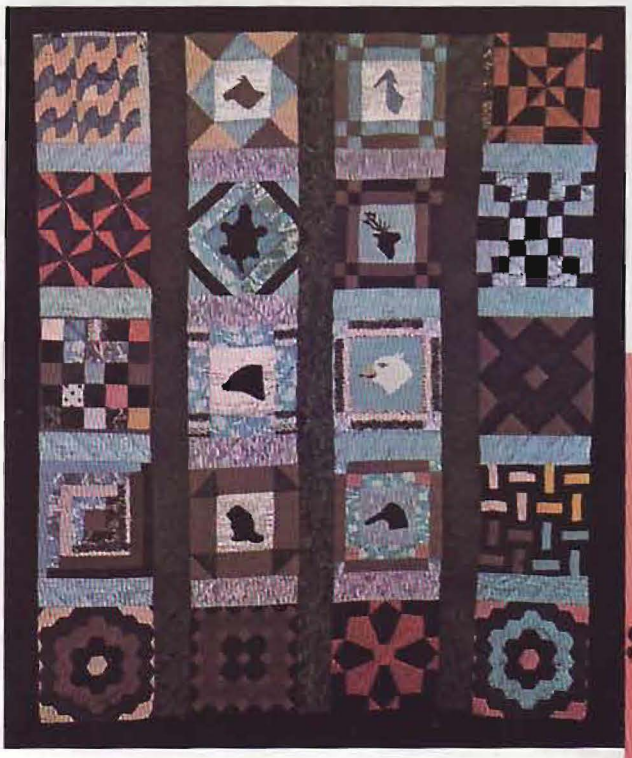
Serving Dish

Cradleboard

Cane

Condolence cane

Gos-to-Weh — Iroquois Headdress



Clan Quilt and Beadwork

Edna Parker (Cayuga)

Betsy Carpenter (Seneca)

Dolores Oldshield (Seneca)

Emma Ruben (Seneca)

Isabell Sky

(Six Nations Reserve)

Corn Husk Doll Maker

Standing and Sitting Dolls

Ceremonial Drum

Elmer Shongo

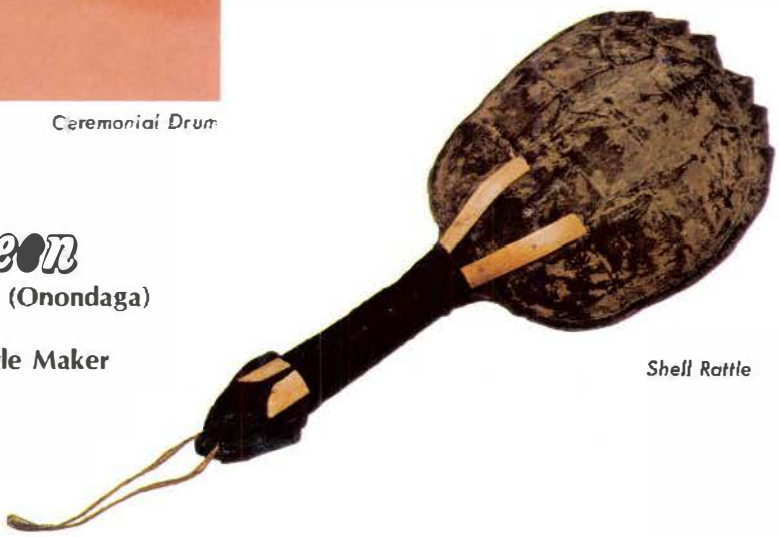
(Seneca)

Drum Maker

Warren Green

(Onondaga)

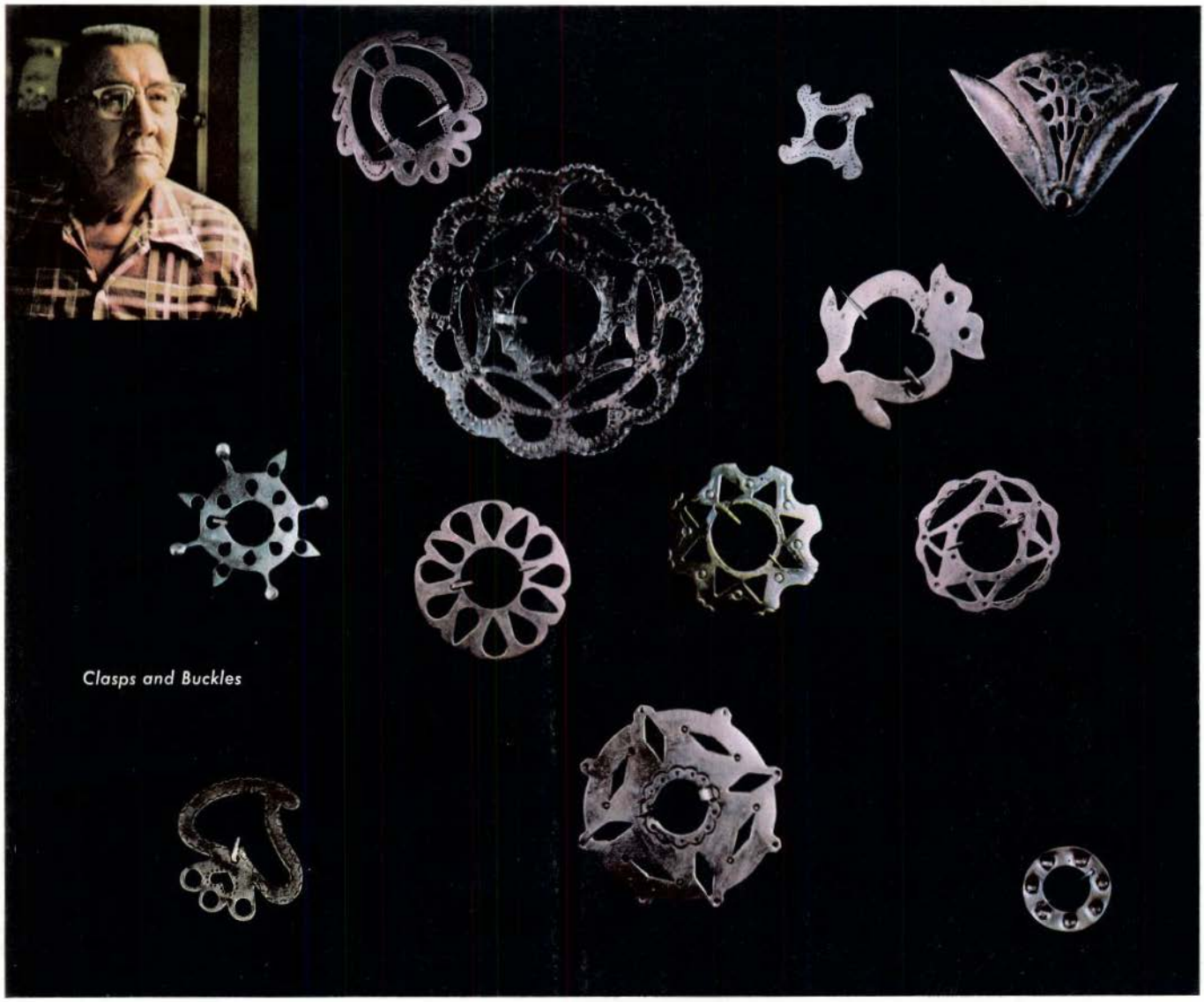
Wood Carver and Rattle Maker



Shell Rattle

Ray Elm

(Onondaga) **Silversmith and Craftsman**



Clasps and Buckles

Dutch "Trade" Beads and Antlers

Necklaces

Beads and Deer Bones

We Can Never Go Back Into the Woods Again

by Dale White
(St. Regis Mohawk)

LAST summer I went around to Indian reservations in New York State and talked with native Americans. I wanted to find out how these people feel about their role in society and whether or not that role will change in the years to come. I use the term "role" in the singular form for a good reason. Native Americans are the product of a shared experience. Those whom I talked with were not at all reluctant to discuss the historical events that all but destroyed their culture. Few civilizations have suffered the human and cultural injustices that the aboriginal American has. And those events have left a lasting impression on native people. While it is not necessary to dwell on history, it is essential to note that contemporary issues persist in society with the same effect on the native Americans as the injustices of the past. The following interviews present some of the views of the native Americans who live in New York State.

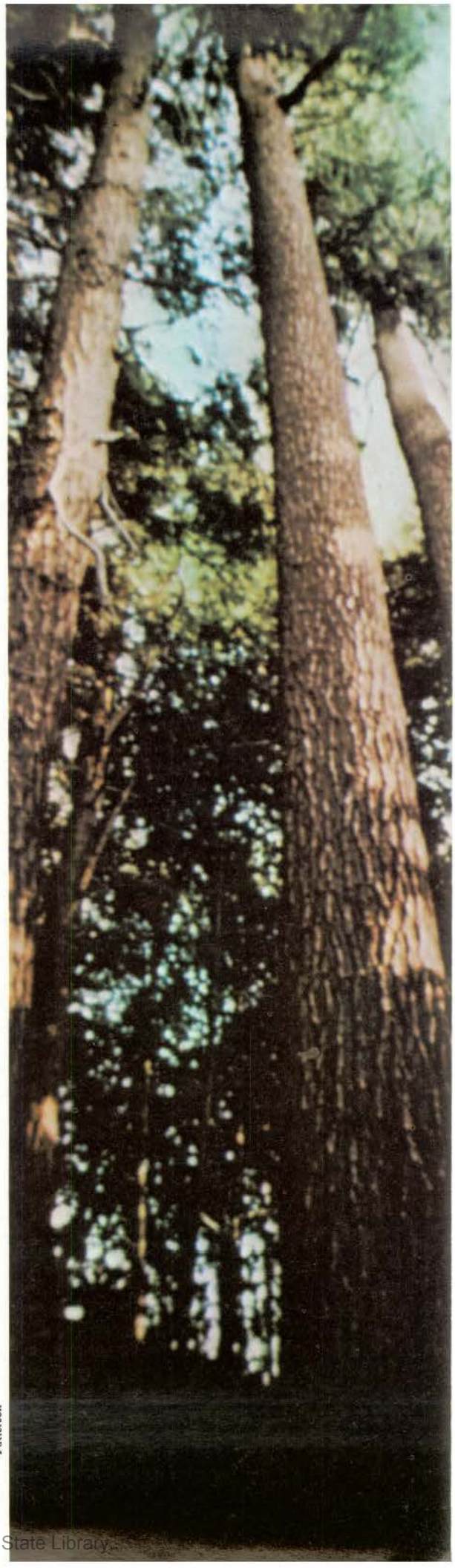
John L. is a Seneca man who lives on the Cattaraugus Reserve in the western part of New York State.

Is there one thing that stands out as a truly Indian desire, something that all native Americans can hope for?

Everything hinges on the land. Indians don't really have very much in the way of their former culture. The white man has seen to that. We really don't have much land but we have to watch it carefully or else the white man will take that too.

In recent years there has been an interest in taking back some of your ancestral lands. What do you think about that?

I think that it is good that native people are finally reacting. We really never gave that land up. Native people really believe that the earth is our mother; out of her every thing in nature grows up to the father sky. The white man claims that we sold the land. But who would want to sell one's mother. And look what the white man has done to the land! If we get it back we will not be able to recognize it since now it has been poisoned by the white man running highways over it, flooding it, polluting the air with car fumes and spoiling the waters with his factory waste. You can telf that the earth is not the white man's mother, and if it is, she should disown him.



Patterson

State of New York, Department of Environmental Conservation

Could Indians bring the land back to its natural state?

Indians couldn't but nature could. Nature is a very powerful force. The white man doesn't recognize this. If he would leave the land alone for a while it would take care of itself. But he is interested only in money.

Edward and Celena Smoke live near the village of St. Regis on the Akwesasne Indian Reservation in upstate New York. They have six children, one a recent college graduate.

In light of what has happened to native Americans in history, what problems or feeling do you have about it?

(E. Smoke) — *At first it was the case where the white man had to adjust to the Indian's way of life. Now it is just the opposite, the Indian lives in the white man's world. We have to live like him or else suffer the consequences. Look at our form of government here on the reservation. We changed from a traditional to an elective form, from our way to his way.*

Was the traditional form better?

(E. Smoke) — *No, I think the elective form is more progressive, more suited to changing needs.*

What about those Indians who reject the white man's way?

(E. Smoke) — *I know there has been a desire to go back to the old ways. I don't think it is realistic in today's world. Indians can retain their culture and still live and work in the white man's society. We can never go back into the woods again.*

(C. Smoke) — *I think if we can keep giving our children a better chance through education then they will learn their culture. They teach the Mohawk language at school. I don't think you can teach anyone to be Indian, but you can bring back the language at school and tell the children the truth about their heritage.*

(E. Smoke) — *When I was young I didn't know all the historical facts and when they sent me away to the white man's school I lost the Mohawk language. In fact to this day I don't know what clan I belong to. Today the children have the chance to learn these things.*

(C. Smoke) — *It used to be that only a few of the high school graduates had the opportunity to go to college. Now with more qualified students everyone wants to go. I don't think everyone should but that is a problem we can live with.*

I wanted to find out what special problems and needs a native American student might have in college so I talked with someone who had been to college recently and received this response:

When an Indian kid goes to college he isn't treated like most students are. As soon as they know he's Indian they, the white counselors, tell him what courses to take even if he isn't qualified to take them. You can't blame him for listening to them. It's a new experience, so he takes the courses and as hard as he studies he fails. After that he goes back to the reservation and never does go back to get an education.

Nancy Duffy/NAHO

Old people, respected and venerated, are also keepers of the Iroquois traditions.

What is the answer, more native American counselors?

Not only that but more sensitive teachers. They don't have to be Indian teachers and counselors, just as long as they aren't paternalistic. The way it is now there is an unwritten policy that states that no minority student will ever be able to raise his head above water.

What will be the effect of more native Americans with college diplomas?

I'm not really sure, it just seems that if you do well in high school you have to go to college. If you don't go you become a steelworker. There just aren't enough options for Indians out of high school. Education isn't a commitment to anything. It doesn't mean that you are giving in to the white man's way of life. There will just be a lot of smart Indians walking around without jobs.

What should native Americans be committed to?

I don't think they should be committed to the white man's society. You see we don't have a vested interest in it. We are marginal people who can't be satisfied by trying to be white. The Indian people who want to be full members in society can't because they will always be considered one notch lower than the white people. Those who want to break away go to school and are taught how great the American dream is.

That sounds pretty pessimistic.

Of course it is, and that's why Indian people have to have an independence, a voice in their own affairs, a total management of their culture without interference from some white man from Albany or Washington.

Self-determinism is synonymous with "a total management of one's culture without interference from some white man from Albany or Washington." In talking with Chief Charles Terrance of the Akwesasne Reserve I found there to be a considerable amount of it in decisions affecting the welfare of the Indians on the reservation.

What is your role as an elected chief in meeting the needs of the community?

Through economic development programs we are planning to construct a cultural center where we now have only a small office building and library. This center will accommodate the needs of the entire community. We will have room for a senior citizens' center, recreational, educational and administrative facilities.

How are decisions like this arrived at?

The other two chiefs, Russell P. Lazore and Rudolph Hart and I meet once or twice a week with members of the community to assure all parties are represented. A result of these meetings is the proposed steel fabrication plant that will provide employment within the reservation boundaries.

Will there be any facilities where the Mohawk language will be taught?

Oh yes, we will have a language center. One of our main objectives, besides employment, is teaching the language that many of our children seem to be losing.

At the Onondaga Reservation located near Syracuse, New York I had a conversation with a man who described himself as a traditional Indian. The governing body of the Onondagas is a traditional council of chiefs.

Some of the issues that face the native American today are the same ones that face most Americans — housing, poor schools, rising prices, unemployment. What extra problems face Indians?

The white man should really consider himself lucky that he does not have to face these problems the way we do. We never asked for the way of life that has created these things. You say "extra" and that is right. The white man's problems are the extra ones. He came in and stole our land then dumped his problems in our laps.

Why do you think the white man does the things he does?

The white man's reasons are greedy ones. You look at his houses. Indians don't care about having big, fancy houses. The white man is vain, he likes to show off how much money he makes.

The white man isn't going to disappear. What can Indians hope for?

It would be nice if he did disappear. Hope for? The least that we can hope will happen is a return to some of our old teachings. White people don't realize that we had a culture before they got here. Maybe they thought we were walking around lost in the forest or something.

You know nobody ever talks about what our culture would have accomplished had it not been for the white man. That is part of the problem today, the white man expects us to forget our culture.

What keeps the native culture alive?

It's something that's hard to talk about, something almost like what holds a drop of oil together in water. I guess you would call it a bond, a cultural bond.

I've heard the term "textbook Indian" used as applying to an Indian who learns his culture through books. What do you think about that as a way to get back a culture?

It's sad to say that might be one of the only ways left today. Most of our people have lost a good deal of the culture because of what the white man has done. There was a group of young white people here who showed some of our people how to build a birch bark canoe. None of us knew how to build one. That is very sad, but I think if we work hard enough we can get back some of the old ways.

The school has now become a way for the Iroquois to learn their language, culture and traditions.

Ann Lewis

State of New York, Department of Environmental Conservation

What about the future of the native culture?

The "Indianness" in our people will never die. We may forget how to build canoes and muskrat traps and those things but the bond that makes us want to live together will always be there no matter what the white man does. White people always ask me, why do you choose to live on the reservation when there are so many advantages in the white man's world.

David A. Spier

House on Tuscarora Reservation

What do you tell them?

Believe it or not, I tell them there is a hell of a lot more freedom here on the reservation. They don't believe me probably because everything is so magnified around an Indian reservation. There is a body of Indians on one side of the boundary line and a body of whites on the other. The white man is always trying to find ways to downgrade the quality of life on the reservation. I don't know how many times I've overheard white people talk about all the fights and killings that are supposed to take place here.

Why is there more freedom?

On a reservation just about everyone is related in some way or another, I can't think of any place quite like it in that respect. The only reason most people leave the reservation is to find jobs.

Space does not permit me to record all the conversations I had with New York State Indians over the past summer. I think it a singular accomplishment to acknowledge that there are native Americans living in this state. As one native person said to me —

What disturbs me is the number of white people who don't even care to know that there are Indians in New York State. I went down to New York City recently and checked out an information bureau to see what they had to say about native Americans living in the state. There was not one piece of literature on native peoples. The man who worked at the desk didn't even know anything about it.

Tuscarora Reservation School

Is this a widespread ignorance?

I really think so. It's probably not so much ignorance as indifference. Native Americans aren't a clearly defined entity to most white people. We don't conform to their standards so we really don't exist either. I guess you could call it both ignorance and indifference but what is the difference? The white man still doesn't understand our problems. It's hard to accomplish anything when people don't even recognize that you exist. There are many ridiculous notions in the American mind about Indians. One is that there are no Indians living east of the Mississippi. If I had a dollar for every time I've been told by some white man that I don't really exist I could retire to the reservation that isn't supposed to be there.

Working in high steel has become a tradition among many Iroquois

Courtesy NAHO

Prehistoric Iroquois Medicine

by Richard E. Hosbach
and
Robert E. Doyle

Photos by Authors

Brewing of Spring Herbs by Ernest Smith — *Courtesy American Indian Treasures, Inc.*

LONG before European settlement in the New World, the Iroquois had developed a system for the diagnosis and treatment of disease which, in many cases, proved to he more effective and sophisticated than the medicine practiced by their European counterparts. Iroquoian medicine included a cure for scurvy, a treatment for high blood pressure as well as a knowledge of psychiatric techniques for the treatment of severe depression and some psychoses.

The Jesuit Relations of 1632-1673 are the most valuable source of information on Iroquois medicine. However, early Dutch manuscripts, correspondence from early New York State colonists, and other religious journals (i.e. Moravian Journals) are also invaluable. Most manuscripts after 1750 are inaccurate in describing Iroquois medicine because indigenous Iroquois medical practices had by that time been adulterated by European cures brought by the colonial herbalists.

The first record of indigenous Iroquois-Huron medicine is from the journal of Jacques Cartier written during the winter of 1535-1536. His ship, La Grande Hermaine, was ice bound in the St. Lawrence River near the Indian village Stadacona, present day Quebec. Out of a crew of one-hundred and ten men, twenty-five had died of scurvy and eighty-one were showing signs of the disease. Among the ships' crew was Dom Agaya, a son of the Huron chief Donnaconna. Cartier had taken Dom Agaya on the return voyage of his first trip to the New World in 1534. After developing the early signs of scurvy, Dom Agaya suddenly disappeared from the vicinity of the ship. Twelve days later he returned with several companions to La Grande Hermaine, cured of the disease. Cartier was amazed and cautiously queried him for the "cure." Dom Agaya then sent two of his companions into the neighboring forest to collect the medicine. They returned with the leaves and twigs of a tree that the Iroquois called *One'nda*. Cartier was instructed to boil the leaves and twigs in water and administer the decoction orally. The dregs were to be applied as a poultice to the swollen limbs. Within two weeks the entire crew was cured of scurvy.

What tree did the Indians use for their vitamin C source? Three species have been suggested by various authors: northern white cedar *(Thuja occidentalis)*, eastern hemlock *(Tsuga canadensis)*, and eastern white pine *(Pinus strobus)*. Each of these has been shown to contain vitamin C and each has a name in the native Iroquois language phonetically similar to *One'nda*. The prehistoric

Iroquois were able to cure scurvy with ascorbic acid (vitamin C) two-hundred and twenty years before Lind discovered that oranges, lemons or limes could prevent the occurrence of the disease among English sailors.

In 1615, Samuel de Champlain reported several plants which were perhaps the most dramatic in the Iroquois armamentarium. Among these was the may apple *(Podophyllum peltatum)*, which contains in its rhizome and roots the potent poison, podophyllotoxin. Ingestion of the raw rhizome was a means of honorable suicide among the Iroquois. However, the Indian knew that baking the root destroyed the toxic principle. The resulting residue, when taken orally in small doses, produced a cathartic (laxative) effect.

More effective cathartics are now available to the medical profession and the use of podophyllum in this role has disappeared. The resin of podophyllum is, however, still in use in the treatment of venereal warts *(Condyloma acuminatum)*.

False hellebore *(Veratrum viride)* was reported to have been used in the treatment of catarrh and in the treatment of head lice. Indian women combed a decoction of the rhizome through their childrens' hair. To date, the effectiveness of this plant for use against ectoparasites cannot be chemically established. However, the use of *Veratrum* for catarrh suggests unusual sophistication among the Iroquoian shamans. Individuals suffering from high blood pressure (hypertension) often suffer from stuffiness of the nose and headache. In the early medical literature such symptoms were classified as "nasal catarrh." *Veratrum* is also described by the Swedish botanist Peter Kalm, (CA. 1770) as a compound which caused a "plentiful discharge of urine," especially when given to patients with "scorbutic parts." In advanced hypertension, congestive heart failure causes swelling of the lower extremities. It is possible that this symptom was misinterpreted by the Indians, as well as the Europeans, as being a sign of scurvy ("scorbutic parts").

Veratrum viride contains protoveratrine A & B, and cryptenamine, both potent anti-hypertensive agents. When taken orally in the proper amounts, *Veratrum* would lower the patient's blood pressure providing relief from "catarrhal" congestion. It would also allow the edema to subside with a resultant increase of voided urine. Until recently, these compounds were popular in the treatment of essential hypertension. The anti-hypertensive action of the *Veratrum* alkaloids is superior to many currently used anti-hypertensive drugs. However, the narrow margin between the effective dose and that which produces vomiting and other side effects renders these alkaloids therapeutically inferior to current compounds.

(above right) Hemlock (Tsuga canadensis); *(above) White pine* (Pinus strobus); *(right) Mandrake (May-apple)* (Podophyllum peltatum)

Another New York State plant, which has both prehistoric and current medical value, is trailing arbutus *(Epigaea repens)*. The early literature indicates that Indians used the plant for "blood and kidneys." Again, misdiagnosis or inaccurate European reporting may be a factor here. Primitive people frequently feel that a rash is a manifestation of a blood disease. In addition, dark-skinned people with uremia due to end-stage kidney disease, often exhibit dry, atonic skin which often becomes pigmented. Other hyperpigmented skin blemishes such as freckles, old age spots, and cholasma due to pregnancy (mask of pregnancy) could also have caused confusion.

The leaves of trailing arbutus contain a compound called arbutin. When arbutin is mixed with water it produces hydroquinone and glucose. Brown pigment in the human skin is produced by changing the amino acid, tyrosine, through the action of the enzyme, tyrosinase, to the pigment, melanin. The reaction can be blocked by adding hydroquinone to the system. This then results in a decrease in the production of melanin by inhibiting the action of tyrosinase. A Byran, Ohio pharmaceutical company currently markets hydroquinone in ointment and cream forms for lightening and bleaching these darkened skin areas.

In the care and treatment of infants and children, the Iroquoian women were especially sophisticated and far ahead of their European contemporaries. The use of cradle boards and swaddling were standard prehistoric medical practices. In the past several years, swaddling and transport of infants by back pack have again become the vogue. Many psychologists feel these practices have a calming effect on infants. This would certainly be de-

(left) False hellebore (Veratrum viride); (below) Arbutus (Epigaea repens)

sirable for people living in the communal atmosphere of the Iroquois longhouse. Most infants remained on breast milk for two years. This procedure prevented diarrhea from enteric pathogens (infantile diarrhea) because breast milk was sterile. To date, however, there is no data to support an Indian knowledge of sterilization.

An adequate "baby food" was also prepared by the Iroquois mothers consisting of dried, ground butternuts and hickory nuts, added to jerked bear or deer meat. The mixture was then boiled and the pap poured into a greased section of bear intestine which was fitted on one end with a hollow goose quill. The apparatus was similar to a modern day squeeze-cake decorator. Such a mixture is high in carbohydrates, proteins and fats; all essential chemicals for normal infant growth and organ development.

In the early 18th century, the Jesuit missionary Father LaFitau described in detail a present day international method of physical therapy. The Iroquoian sweat baths are identical to modern sauna baths. Round huts measuring six to seven feet high and large enough to accommodate eight adults were built on the banks of streams and rivers. Insulation was effected by mats and furs covering the structure. Heated cobbles were placed in the center of the lodge and cool water was sprinkled on them to generate steam. Each bather would chant his own sacred song while he was sprinkled with cold water from a nearby earthenware pot. After an appropriate time, the healthy Indians plunged into the cold water of the stream. The infirm or sick simply sprinkled cold water on their bodies. Thus the sweat bath was used as a prophylactic to disease and in some instances as a treatment for sprained muscles or sinusitis.

Psychiatry was perhaps the most highly developed Iroquoian specialty. Over two and a half centuries before Freud, dream analysis, group therapy, and play therapy were standard practices of Iroquoian psychiatry. In the diagnosis of psychiatric disease, the Iroquoian shamans were able to recognize severe depressions, psychosomatic illness and some psychoses (i.e. paranoid delusions, obsessions, conversion hysteria, etc.). Deviations from the Iroquois ego-ideal were readily discerned by the shamans. The ideal was a courageous and truthful person. He prided himself in his indifference to pain and insult and was meticulous in observing the duties of kinship. As Anthony Wallace, a noted student of Iroquois psychology, so well stated the Iroquois "was inner-directed to an extraordinary degree and at the same time socially responsible."

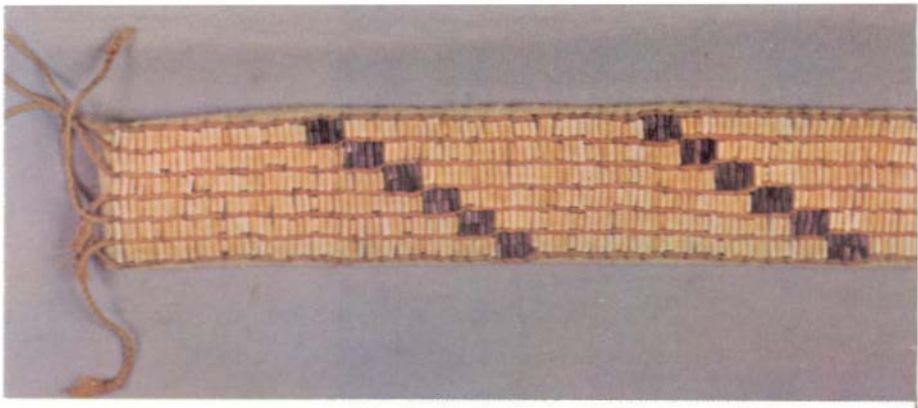
The interpretation of dreams was facilitated by a dialogue between the patient and an individual shaman or with several members of the various medicine societies. The acting out of the dream or involvement of others in helping the patient to act out his dream is identical to modern psychodrama therapy.

The Indian medicine societies were frequently linked with dream analysis but could also provide other methods of treatment. The well-known False Face Society was called upon in patients persecuted by visions, but was also helpful in patients with paralysis. The medicine society members would rub ashes into the hair of the patient, rub his body, and stimulate him with the sound of turtle shell rattles. These practices are reminiscent of a current form of therapy used to treat children with cerebral palsy.

Because of a strong kinship-related society, the death of a loved one caused severe depression in the surviving relatives. The condolence ritual was a formalized one which lasted ten days. Neighbors and friends supported the bereaved in both words and deeds, but on the tenth day, a feast was given to put the "soul of the departed to bed" and "dry the eyes of the living." In this way, prolonged depression over deaths was effectively curtailed.

In the field of orthopedics, the Iroquois were also far ahead of the Europeans. Setting of fractures and treatment of dislocations were done with nearly modern expertise.

The study of prehistoric Indian medicine not only gives us a deeper understanding of the original Americans, but offers us an opportunity to investigate their "medicines and treatments" using modern pharmacological techniques. Perhaps hidden in the pages of a dusty 17th century journal detailing practices of the American Indian, are therapeutics that can aid us in treating more effectively current diseases.



The Six Nations

by Martin Wasser

Champlain Wampum Belt

IT is too facile, too simplistic to merely focus on the highly publicized examples of Indian presence in New York which have attracted so much of the attention of the media and the public in recent months to explain the present attitude of New York's Indians. Whether we talk of the dispute involving the Indians who presently occupy the Moss Lake area under a title claim dating back several centuries, or of the federal lawsuit in the City of Oneida which will decide the ownership of a large parcel of land and possibly displace many present landholders, or of the controversy on the Onondaga Reservation involving the eviction of eleven non-Indians from the Indian Nations Territory, we speak of manifestations, not beliefs.

Similarly, when we talk of changes that have already taken place in the areas of health care, education, correctional treatment, and environmental conservation, we speak of tangibles rather than feelings.

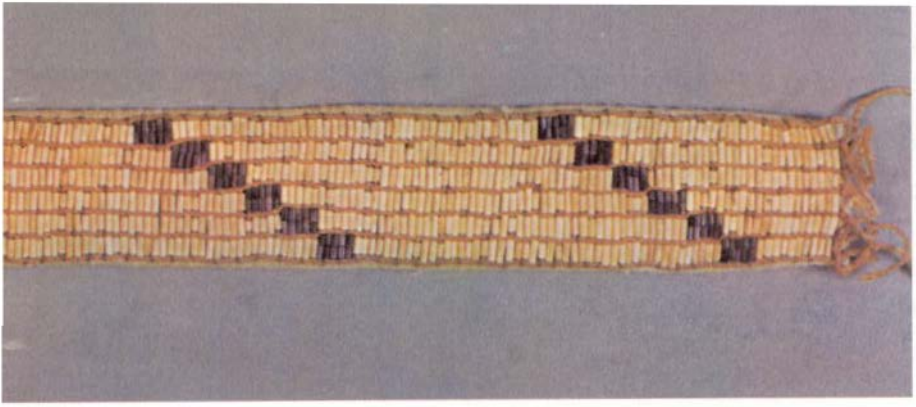
The dispute at Ganienkeh (Moss Lake-Eagle Bay) revolves around a definition of lifestyle rather than merely a claim to a particular parcel of land. In New York State there is a keen sense of self-recognition among Indians, recognition that the basic erosion of Indian culture must not only be retarded, but, more constructively, that an affirmative response to the need for self-awareness must be found.

It is ironic in one sense that the Indians who assume the most active posture are also those most committed to maintaining and enhancing the traditional Indian lifestyle. Radicals in the purest sense of the word have always been decidedly unsupportive of traditional societal institutions. The dichotomy existing in the thought of contemporary Indian radicals, the anchoring of individual identity in ancient culture and rituals of past generations even as present institutions are rejected, bespeaks the seeming inconsistency which the state faces in attempting to deal with the presence and problems of Indians in New York State.

Oliver Wendell Holmes once wrote, "The great thing in the world is not so much where we stand, as in what direction we are moving." New York State has proclaimed itself committed to a "new era of relations" in Indian affairs, has adopted a new sense of awareness towards the Indian nations within the state. An appreciation of the seemingly inconsistent behavior of many Indians, however, will require sustained sensitivity on the part of non-Indians throughout the state.

The most difficult concept in the United States foreign aid program for people to understand has traditionally been the unwillingness of nations which receive vast quantities of our foreign aid to adopt American cultural, political, and economic ideas and institutions. Similarly, officials in New York State will be called upon to understand and explain to the public the Indians' willingness to receive additional state benefits in areas such as health care and education while at the same time clinging to their identity.

Unfortunately, this task is complicated by the fact that no clear picture of Indian identity and goals presently exists. One Indian commentator noted that "non-In-



Treaty Wampum Belt

and the State

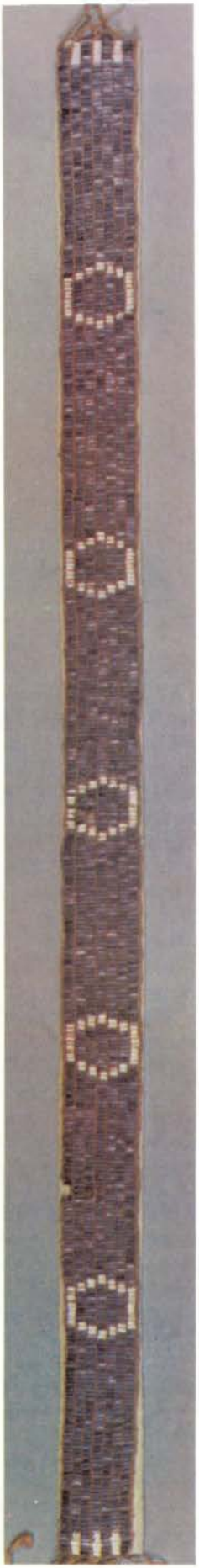
dians must recognize that Indians are not all the same, that there is a certain strength in diversity." Underlying this basic strength, however, is the conflict within the Indian nations themselves as to which beliefs, which forms of government, which attitudes will be adopted. To deal intelligently with the Indian Nations, therefore, the state must be cognizant of the diverse viewpoints making up the Indian identity and not attempt to deal with the Indian Nations as a monolithic entity. Today, the Indian in New York State is bringing to culmination an identity crisis which has been going on for many years. The state as well is undergoing a reevaluation of past policy towards the Indian and is attempting to gain a fresh perspective on its approach. The salient feature of these acts of redefinition and redirection is that neither is taking place in a vacuum, but each is responsible for and responsive to the thinking of the other. The state can formulate its new direction only when it fully understands how the Indian views himself. The Indian can develop a true sense of personal identity only when he factors into his thinking an acceptable image of his relationship with the state.

Ganienkeh is the most visible example of this interrelated process, representing as it does a desire on the part of the Indians to establish a clearly delineated lifestyle and sense of purpose. What is absent from this thinking, however, is realization of the practical constraints inherent in the situation, a clearer perspective of the opportunity which exists to establish a mutually acceptable and advantageous relationship with the state. Ultimately, the parameters surrounding Ganienkeh will be established not by metes and bounds, but through acceptance of a viable idea by others. What answers finally come out of this experience will establish a pattern for future relations and almost certainly produce a fixed impression in the minds of the individuals involved which will affect future relations.

The process of mutual redefinition will present firm challenges for both the state and the Indian nations in the coming months. What is certain is that the state is willing to approach the problems with a fresh approach, possessed of an obvious appreciation of the difficulties which state-Indian relations have encountered in the past, yet cognizant of the need for a new objectivity in dealing with the changing Indian identity.

Ultimately, the importance of this endeavor to the state, the need to relate anew to the Indians residing within New York, is perhaps best expressed by John Collier in his book, "Indians of the Americas":

> "What, in our human world, is this power to live? It is the ancient, lost reverence and passion for the earth and its web of life.
>
> This indivisible reverence and passion is what the American Indians almost universally had . . .
>
> They had and have this power for living which our modern world has lost — as world view and self view, as tradition and institution, as practical philosophy dominating their societies and as an art supreme among all the arts."



General Ely S. Parker Wampum Belt

Inspired by Indians

by William H. Carr

Painting by Ed Kenney

AT the age of twelve or so, I was an ersatz Indian. I've never quite recovered from the experience. James Fenimore Cooper with his Leatherstocking Tales, especially "The Last of The Mohicans," had his way with me, as did Ernest Thompson Seton with his books, "Two Little Savages" and "Rolf in the Woods," and there was Daniel Carter Beard who urged his Boy Scouts to adopt some phases of what he called "the Indian way" of woodsmanship. I was not so much interested in the costumes, dances and rituals, as in the practical part of living outdoors. Dan Beard had said, "You'll never know as much about the woods as the Indians knew, but you can learn a lot if you put your mind to it."

The woods involved were composed of spruce, hard maple, pine, hemlock and fragrant balsam, in the northern Adirondacks. The time was sixty years ago. We owned a small farm in St. Lawrence County, New York, where we spent three months each year. It was near the town of Parishville at a place called Allen's Falls on the St. Regis River. I still remember sitting beside the falls where they took a tremendous leap over a ninety-foot high incline of bedrock and glacial boulders into a swirling pool below, and thinking that Indians must have sat where I did, watching the same scene and experiencing the same thrill.

St. Lawrence County, New York, was the land where my parents were born and where they are buried, not many miles from the falls which they also cherished. What a wonderful place for a boy to expand his horizons in those halcyon days of summer long ago. One never forgets his first love. The St. Regis River at Allen's Falls was mine.

I enjoyed escaping not only from New York City, but also from my family. To do so, it was simply necessary to walk a short distance down the dusty road toward the butter and cheese factory which operated on waterpower, and then go into the woods and follow the river downstream. It seemed to me, at the time, that there were other people in the woods. I can't quite explain this, but I would turn around and look, and listen, and hear nothing. Then, I conceived the idea that possibly there were some Indians still there. I built a lean-to partly dug into the soft earth, on the high bank of the river below the falls, using some fallen wood, mosses, grass and branches. It was a good place to conceal myself where I could observe whatever transpired in the vicinity. I was sure that no one passing by below or above could see me. Then I asked my parents' permission to sleep there. Father wanted to see the place I had built, and of course, I showed it to him, trusting him to keep my secret as to the location. He said, "That's fine. You apparently want to live like an Indian."

And I said, "Yes, I do!" and I did!

The first night I brought some blankets, cut some balsam boughs and placed them on the ground inside the shelter for a bed, in accordance with some instruction I had read, in the Boy Scout Handbook for that was just after the Boy Scouts of America became established. The very first handbook had been written by Mr. Seton.

I was there, alone, when darkness fell. I had had my supper at home, and I remember mother saying, when she thought I couldn't hear, "I wonder if he'll spend the whole night there?"

Well, I did, and I went to sleep and nothing awakened me. I was up and about with the sunrise, packed my gear and went home, and answered questions as to how I had survived the night. I think the family was surprised when I seemed enthusiastic and very anxious to repeat the experience, which I did a number of times.

After a while, I began to cook some of my own meals. I caught fish and would clean them as my older brother had taught me to do, and cook them. Eventually, my family said, "You're spending too much time out there." I said, "Well, I'm having fun, and I'm not bothering anyone." And mother replied, "That's all well and good, but we don't want you to become a hermit, at least not at your age."

There were very few whitetail deer left in the immediate region in those days. Nevertheless, there were some, and I had seen their tracks. I thought it would be a fine thing to stalk them the same way the Indians did. I developed a system of getting up early in the morning in my camp and going along the river, looking for fresh tracks where the deer had come down to drink. Of course, the hoofprints would reverse themselves and go back into the woods. At first I would lose the tracks after a short distance. The ground was spongy, soft and moss-covered in many spots, and I had no way of deciding where the trail would reappear, but I kept at it. Eventually I could tell by various signs where the deer had gone. I could see little

marks where plants had been stepped on by the deer, thus revealing the details of his travel. One day I followed the signs back for at least a quarter of a mile to where there was a muddy place with tracks very distinct and very fresh. Water was still seeping into the imprints. I stood perfectly still and listened. From not far away came the sound of a branch, not cracking but being released. I had an idea what that was. The deer had been feeding on some leaves, pulling a branch down and then letting it go so it slapped up against the branch above. On hands and knees, I moved forward. With great excitement I saw the white flag of a white-tail deer ahead of me in a little opening. Once more I froze, and then as the flag moved, I moved, and shortly the deer came into full view, a beautiful buck with antlers. He, too, was listening. He had no doubt heard my movements. I raised up, he saw me and was off in a flash. That was my first view of a wild deer in the woods.

I was inordinately proud of my ability to do this tracking, and I boasted about it. I was told Indians would never have had any trouble doing that. "You're not the only one who stalked a deer and found it." This didn't discourage me. I knew no other member of my family could do as well.

I tracked other animals, too, including bobcats, also skunks. Skunks were not hard to follow. They made quite a trail through the woods, sniffing here and there, turning over stones and pieces of bark with their exploring noses and sharp-clawed feet. Eventually I would find them, or their den.

I soon realized that heavy boots were not good for tracking animals and so, once more using my Boy Scout Handbook, I learned how to make moccasins. I secured some tanned deer skins from a harness maker, and produced a good pair which I wore for the rest of the summer and kept for a number of years. I noticed one thing about the moccasins: when you inadvertently stepped on a dry twig with a boot, a loud sound would result as the twig snapped. On the other hand, if you stepped on a twig with a moccasin, quite often the twig would simply crush down into the ground without breaking.

With all this stalking and watching, I got to know quite a lot about the woods and its inhabitants.

Birds' nests were always of interest. I can remember the nest of a red-shouldered hawk in a pine tree not far from my blind. I was afraid someone would come along, shoot the birds and destroy the nest, because the farmers in that region were death on hawks. To them, every hawk, no matter what species, was a chicken hawk. In those days, not many people realized how valuable some hawks were in catching mice and other creatures which damaged farmers' crops, particularly his stored grain. One time I heard someone approaching down the trail below the blind. I looked out and there came a chap with a shotgun. He was the son of one of the farmers who lived not far away. I saw in the distance the mother hawk gliding along over the river with a mouse in her beak, bound for her nest to feed her young. I didn't know quite what to do. I was sure this man would see the hawk and shoot it. Creeping out of my lean-to, I went around behind it and came crashing down through the brush to where this fellow was standing. He talked to me for a while, saying, "Boy, you certainly made enough noise up there." The hawk flew away and he never did discover the nest.

I discouraged hunters more than once in this way. I didn't want to see animals I had spent so much time discovering and observing, killed by anyone. From what I had read in books, especially by Mr. Seton, I had learned that Indians had a high regard for wildlife and only killed animals they needed for food or other purposes, and that they also had regard for certain creatures in a religious sort of way. I suppose that originally my ideas about the conservation of wildlife came from this knowledge. I felt, no doubt, that as an Indian, I would protect creatures from indiscriminate killing because, "being like an Indian," I had a desire to think and behave as they did. I never had heard the word conservation. Indians were largely responsible for my love, interest in and knowledge about wildlife and the related wish to protect it. Probably many young people who became concerned with saving creatures from useless slaughter were inspired, as I was, by Indian lore rather than by any Wilderness Society which did not then exist.

Yes, inspiration absorbed from literature about Indians was important to young people. Certainly, it was to me. By and large, I suppose it *was* considered strange behavior on the part of a boy not to want to kill the wild creatures but who tried to protect them and even had the temerity to criticize others who did shoot animals needlessly.

I'll never forget one time when I worked in that little cheese and butter factory on the St. Regis River. There was a pair of stately great blue herons that patrolled the stream nearby. These large, majestic birds fascinated me, and I always kept an eye out for them. Often the male heron would stand motionless on one side of the dam which provided waterpower to operate the factory, seeking frogs and fish near the shore. One day a man came along with a shotgun. I saw him through a window, and before I could make a move, he raised the gun and shot "my" heron. It was a senseless thing to me. I became very angry, rushed out on the bridge where the chap stood and bawled him out with all my vim and vigor. This amused him mightily and he went away laughing, while the dead heron floated over the dam. I ran down, pulled the body out of the water and took it home, hoping my brother, who knew some taxidermy, could preserve some of its beauty. Unfortunately, it was beyond his skill and he ended up with that long neck looking more like a snake than a heron.

I mentioned earlier the imaginative feeling that someone was with me in the woods, whether I could see them or not. Sometimes I actually looked for moccasin tracks, thinking, "Well, if I can hide myself from people, Indians certainly could conceal themselves from me, and in a far more effective fashion." But, I never found the prints of anyone's moccasins except my own. I would sit under a tree, perhaps watching a birds' nest while the parents fed their young, and think I did hear a sound, but it never turned out to be an Indian hiding behind a tree or rushing off out of sight. Sometimes it was a woodchuck which had come from the open fields a short distance into the woods and scampered away upon discovering I was there.

The only real Indian with whom I had contact at that time, lived on the St. Regis Reservation near Helena, New York, where my uncle, whose name was Bertram Hazen, was a real horse and buggy doctor, who occasionally administered to Indians on the Reservation. The Indian I knew would come into town wearing a shirt that had loops sewn into it, into which he could put wildflowers. He would walk around with his shirt covered with these wildflowers, usually in the morning, seeing what he could see and then returning to his home.

Due to circumstance, it was not long after those summer days that I outgrew my interest in actively living like an Indian. However, I still enjoy going into the woods, and if I am alone I often wonder whether there is some spirit of an Indian near me, seeing what I see, hearing what I hear, and keeping out of sight. After all, they were there first.

Posters such as these are widely distributed to remind the Iroquois of their heritage.

North American Indian Traveling College

THE North American Indian Traveling College is located on Cornwall Island on the Canadian side of the St. Regis Mohawk Indian Reservation in upstate New York. The activity of the college incorporates in its entirety, Native American oriented education. There has been a great need for this type of learning to reinforce the identity of the people who are for the most part, Iroquois, Ojibway and Cree. Since most of the people served are spread throughout the vast Province of Ontario and New York State, travel is the name of the game. Vans, suburbans, and trucks become the mainspring of their work. The Travel Troupe members are busy from early spring to late autumn spreading the gospel of the red man. The winter is spent at college headquarters preparing for the next season ahead.

The teacher corps is made up of adults of all ages including elders of the communities served. These people have received their knowledge from experience, not from books written by non-Indians. Teachings are disseminated via audio-visual aids, N.A.I.T.C. publications, displays of cultural artifacts and lectures touching upon every facet of their heritage with a question and answer period after each session. The troupe does offer traditional songs and dances as a part of its message, but the members of the troupe consider their foremost function is the imparting of a North American Indian education.

The focus of the college expands as the demands for commitments increase. The college itself is funded by the Cultural Education Program of the Canadian Government, but it is a year-round struggle by the staff of the college to fight for the financial support.

The N.A.I.T.C. had its beginnings at Canton, New York, with Mr. Ernest Benedict, a graduate of St. Lawrence University. He started with one van, some books and a determination to fulfill the needs of his people. The basic aim of the college is to evolve a proud and positive self-image which heretofore has been suppressed by the dominant society.

Michael Mitchell, president of the college, has proven to be a valuable asset with his wealth of knowledge on the culture of his people. He was brought up by his grandfather, one of the elders of the community and from childhood Mr. Mitchell lived and learned the true meanings of the intricate patterns of the traditional native American lifestyle.

Many an Indian has found his comfortable place in the fellowship of man thanks to the North American Indian Traveling College.

Book Reviews

Conducted by Joan Taylor

Muscle and Blood: The Massive Hidden Agony of Industrial Slaughter in America, by Rachel Scott, 306 pages, E. P. Dutton & Co., Inc., $8.95.

It has long been the boast of American industrialists that the sweatshops of the past with their 60-hour weeks, child labor and low wages have disappeared from America and that the American worker, unlike his European or Asian counterpart, is the most fortunate in the world.

This is simply not so says Rachel Scott, the author of "Muscle and Blood." The truth is that present conditions in many thousands of American working plants rival those that Upton Sinclair described with such devastating effect in "The Jungle." As a nation we have worshipped progress and profits, made gods of science and industry, while all the while blindly ignoring the evidence around us that we were destroying not just our environment and our resources, but also our most valuable asset, our people. Workers die almost daily in explosions and fires, are mangled by machinery, deafened by industrial noise and driven to the breaking point by harassment and the command to work at a dangerous pace. Hundreds of thousands of men and women, with hopes just as real, and bodies just as sensitive to pain as any other person's are poisoned at work by fumes and solvents or suffocated by lung-filling dusts. Yet, ignorant of the causes of their ailments, many of the workers die quietly and uncomplaining, their families accepting deceptive diagnoses of heart disease or cancer or emphysema from company doctors.

This is a book about the continuing carnage to be found hidden behind the facade of the modern factory. To the age-old problems of dirt, disease and injury, even more serious perils have been added, for example, the recent development of countless new chemicals put to use with little regard for their toxic properties. The figures tell their own story. A 1972 President's Report on Occupational Safety and Health has estimated conservatively that there may be as many as 100,000 deaths per year from occupationally caused accidents and disease and at least 390,000 new cases of disabling occupational disease each year.

With a sound background in journalism Rachel Scott is a thoroughly experienced investigative reporter. She spent three years of research before writing the book, reading countless medical and investigative reports, talking with union officials and plant managers and interviewing thousands of workers and their families. What emerges is an account of the indifference of both management and organized labor to the welfare of the working man, of lip service paid to safety regulations and of the hypocrisy of various governmental boards and commissions set up to investigate new outbreaks of industrial disease or accidents. Ms. Scott resists the temptation to be indignant. Instead the workers tell their own stories and we can experience their anguish for ourselves. Several stereotypes of the American working man go by the board and one finds, in the main, that he is intelligent, competent, sometimes taking a perverse pride in being able to perform hard, dangerous labor, fully aware of his problems but convinced that he is a victim of forces over which he has no control.

The conflict between management and labor, between a corporation's legitimate desire to return a profit to its stockholders and its obligations to the safety and well-being of its workers, between property rights and human rights, is a tragic theme that runs throughout the history of industrial America. Despite significant advances, the conflict is still very much with us nor do easy solutions present themselves.

Whether we Americans can resolve the inequities in our society remains one of the great challenges of the future. In the meantime "Muscle and Blood" reminds us that the agony of the American worker still goes on and that whoever reads this book will never again believe the old saw that "hard work never killed nobody." — J.J.D.

Whales: Their Life in the Sea, by Faith McNulty with illustrations by John Schoenherr, 88 pages, Harper & Row, $5.95, ages 10 and older.

The highly mechanized, efficient, whale "fisheries" have reduced several species to dangerously low levels. Many conservationists fear the day will soon come that our children will know the Prince of the Seas only as they know of the dinosaurs. This book with its excellent drawings may help change this grim portent.

Ms. McNulty clearly and interestingly presents the whales in review. Each of the major groups is described, from the blue whale — largest animal that ever lived on our watery planet — to the dolphins that delight in aqua-shows and TV programs. But the book is not just a series of descriptive whale profiles. In separate chapters, the author also tells of a fin whale clocked in a dive to 1,164 feet; of whales 20 miles away reacting to the sounds of another whale when it was harpooned; of the largest of whales feeding on the smallest of plankton. Most importantly, she tells how and why these events happen. A list of books for further reading and an index help the young reader seeking to increase his knowledge of whales.

Throughout the book, the author appeals for rational consideration of the whales. The final chapter, "To Save the Whales," sums up her plea. "To the men who kill whales, these marvelous creatures are no more than floating raw material for a number of products. . . All of these products can be made from other kinds of oil." Whales are precious to us alive in the sea, she adds. This reviewer agrees. — Albert C. Jensen.

A Beachcomber's Botany, by Loren C. Petry, with illustrations by Marcia G. Norman, 158 pages, The Chatham Press, Old Greenwich, Ct., $6.95 (paper $4.95).

I'm not quite sure for whom the author intended this book! The lay reader could be confused by some of the scientific terms which aren't always defined when they first appear (examples are "involute" and "dioecious"). And yet it's not for someone with a science background, who would be put off by the elementary information presented (how plants are named, for example).

The introductory text presents an overview of the beach environment, centering on Martha's Vineyard, and the types of plants that may be found in the area. Illustrations are very attractive and well-done, but do not positively identify the plants. And, unlike a regular key, the same kind of information isn't always included with each drawing and description.

People who buy nearly everything on New England will appreciate this, but someone looking for clear information with definitive illustrations should stick with the less manageable but more informative standard, Britton and Brown's "Illustrated Flora of the Northern United States." — Susan Sprague

Your Questions Answered

conducted by Paul Kelsey

Persistent Bear

While hiking in the Cedar Lakes area we encountered a sow bear with two cubs who started her evening's activities by grabbing a hiker's pack hung on a tree, and tearing it completely apart in spite of his yelling and rock throwing. At the local ranger's suggestion, my companion and I hung our packs in his tool shed for the night. The bear made continual forays around the tent from 8 p.m. until 5:30 a.m. the next morning bothered little by our yelling, hand clapping and light shining. Another hiker with a handgun took a pot shot at the same bear that night, but fortunately missed her. This appeared to have no more effect than our yelling. Is this behavior normal, and can we expect more of it as the town dumps are closed and their steady customers go to the interior? What are the dangers of such animals? How should we have handled the situation?

Robert Huston, Webster

Fortunately not all bears that raid camps are as persistent as the one you described. You did exactly the right things under the circumstances; removed all food from your tent and placed it out of reach of bears and stayed in the tent making enough commotion so that the bear was at least aware of your presence. As for that hiker with a handgun — about the only thing riskier is to hand-feed a bear. Only an extremely lucky shot would have stopped the bear, and any other would have made her mad, and then there could have been real trouble. The handgun now being carried by a surprising number of hikers, is also a real danger to other persons around the area, and should be discouraged. Where it can be done safely, a load of birdshot in the behind will usually send a bear off in a hurry and cause it to be reluctant to return. Some bears have come to associate food with packs and tents of hikers and campers. This is partly through carelessness on the part of individuals, and partly because too many people are actually baiting bears into areas where they can be watched. This type of feeding, poor sanitation around campsites, and failure to hoist food out of the reach of bears at night, has caused the bears to seek out campsites for food. This past fall the situation was further complicated by the extremely poor berry crop which would normally have furnished a large portion of their food. The bear problem will continue just as long as people, either intentionally or not, make food available for bears around camps. The department is doing what it can to inform the public of its responsibility in this matter, and of the hazards of feeding bears, but if experience at Yellowstone is an example, the effort is a rather futile cause.

Fall Webworm

For several years something has been taking over some of our most beautiful trees. It looks like a tent caterpillar, but I understand it is not. I see the skeletons of the elms, and hope that this will not happen to these trees. Is there anything that can be done?

Edna Lockhart, Lake George

What you are seeing are the webs and defoliation caused by the fall webworm, *Hyphantria cunea*. Unlike the tent caterpillar, which forms its web in a crotch in the tree, the fall webworm draws together twigs at the extremity of the branches around which it forms its "tent." Fortunately this defoliation occurs late in the season after most of the growth and food storage has occurred, so that no noticeable harm is normally done to the tree. As long as they are causing no physical damage to the tree, it seems best to let Mother Nature take her course, letting the population build up until some natural catastrophe finally brings their numbers back under control. The department's forest, insect and disease control personnel are aware of the situation, and if serious damage should begin to develop which would require action, they would know very quickly.

Charcoal Cooking

Like most owners of summer places in the Adirondacks, we have our share of house guests. Occasionally we cook outdoors using commercial charcoal. Several of our guests have remarked at the wastefulness of this practice as there is so much wood available around the yard. We maintain the charcoal is superior for several reasons. Burning pine deposits resins on the food, and some fruit woods will emit chemicals when burned which could be toxic in sufficient amounts. Our guests are very persistent. Are we being overly cautious?

Mrs. Joseph P. Farrell, Yonkers

Like a good bureaucrat, I will stand right in the middle. I personally always cook over natural coals, but I select my wood from among the good hardwoods, preferring maple, beech, oak, hickory, ash, apple or cherry. Softwoods burn with too much smoke from the resin and make everything sooty. Unless you inadvertently used poison ivy or poison sumac, I am sure you would not run into any problem with toxins. It is true that the smoke from any wood contains formaldehyde, and this may be part of the preservative value to smoked meats. Even this amount of smoking has not been shown to be harmful, so the small amount you would get while cooking hamburgers is of no concern. Your only reference to the species of waste wood lying around your yard is to pine, a resinous softwood. Softwoods are fine for starting fires and for fast fires. If you don't mind a black coffee pot, you can bring the water to a boil very quickly with pine, but it won't give the coals needed to cook your steaks. If it is softwood you have, or just small hardwood which would not make enough coals to last, stick to your charcoal, or you will have worse troubles than just nagging guests.

Milky Spore Disease

We are overwhelmed with Japanese beetles. It is our understanding that a bacteria called milky white spore will safely destroy them. We have been unable to locate any source. Can you tell us where it may be obtained?

Matilda Kiburz, Middleburg

The disease you refer to gets its name from the millions of white spores in the body of the diseased grub. When the grub dies, those spores are released into the soil where they may remain viable for years, ready to infect more grubs. Milky disease spore powder is a mixture of the spores with talc and chalk which can be used to inoculate the soil with the disease. Unfortunately the demand for the powder has not been great enough for many stores to keep it on their shelves. It is produced by Fairfax Biological Laboratory, Clinton Corners, New York 12514, and appears under the trade names of Doom and Japidemic. I would suggest that you contact them directly, inquiring about the nearest direct outlet to you, or about direct purchase from the laboratory.

Discouraging Bats

What can we do to keep bats away from our house? My father has patched all the holes he can find, and my mother has tried moth balls to chase them away, but to no avail.

Martha Hugick, Richfield Springs

The two practical ways to control bats you are already using. Plugging up all possible entry holes in old houses is very difficult. It takes three to five pounds of naphthalene flakes or paradichlorobenzene, scattered liberally in an average attic where bats roost, but this usually moves them out quickly. It may be that you are being too conservative with your moth balls. Since the fumes dissipate when exposed to the air, they must be replaced periodically. The odor of a bat roost is persistent and may serve to attract new bats even after the original ones have been driven away.

Fawn Triplets

Last week I observed a doe and three fawns, just after dark, crossing a road. Also, last week my father-in-law saw a doe and three fawns on his farm east of Canandaigua. That is 35 miles distant, so I am sure they were not the same ones. Is it possible that these are triplets, or is it more likely that one was an orphan adopted by the doe? How common are multiple births in deer?

Joyce Blowers, Geneseo

Studies of the reproductive rates of does, used to help determine the vitality of the deer population, and to calculate the anticipated number of deer that should be in the field during the coming hunting season, show that adult does in the lake plains area of the state average 1.9 fawns. To get the figure on the number that produce triplets, I had to go back to some earlier data which was put together in a different manner. During the first few years that deer were in western New York, 7 percent of the adult does were raising triplets. The herd in your area is in good enough balance with the range so that I would suspect that the percentage is about the same as it was then. As you suggest, there is always the possibility that one of the fawns was an adopted orphan. The odds are in favor of triplets, however.

Fearless Doe

Last fall we were hurrying down the trail from the summit of Bear Mountain in Bear Mountain State Park to avoid being on the trail after dark. In spite of the noise of our walking and loud conversation, we came upon a doe and her fawn placidly standing not more than thirty feet from the trail. They showed no fear, continuing to graze as we passed by. My usual experience with wild deer is that they run away from humans. Can you explain this unusual encounter?

Zvi Ostrinsky, Brooklyn

You are quite right that deer will normally run away from the presence of a human being as soon as they are aware of it. Deer that have grown up under protected conditions, such as in a park, may have had enough contact with man as just another animal using the woods in a peaceful manner, rather than as a potential enemy, so that they are not frightened. Since you were hiking within a state park, I would suspect that this is the explanation of the fearless placid behavior of the doe which you observed.

Fishing Problems

About 18 years ago we bought an island in Black Lake. The fishing was good. We used to catch bass, walleyes, and white fish. For about the last ten years the fishing has been worse than bad. Calicos got into the lake, and at first they were good — about a pound or better. Now if you catch one that is bigger than a saucer you are lucky. Is DEC aware of the situation, and if so, what can be done about it?

John Smith, Rossie

Warm water fish are much more tolerant than cold water fish to the abuses given by man to their environment. Many good warm water fishing lakes in the state have held their own until just recently. The department is turning its attention to several of these, one of which happens to be Black Lake. The first step is to get a good base of information about what is occurring in the lake, and a three year study has already been inaugurated in Black Lake. It is too early to say for sure what the problems are, or how they can best be solved, but in a discussion with Leigh Blake, the fisheries manager handling Black Lake, I got some ideas of which way the wind seems to be blowing. It is beginning to appear that there are two basic problems, first, that of increased fertility of the lake, and second, the balance between the panfish and the predatory fish has been disrupted so that there are not enough predatory fish to keep the calicos and company under control. There are several things which might have caused this, such as selective harvest by fishermen of game or predatory fish, or the effects of weather at critical spawning times to aid or hinder the spawning of certain species, either important themselves, or important as forage to the other species. When too many fish compete for the available food, they don't grow big enough to make fishing attractive. Interestingly, this is one of the things which spoils fishing in farm ponds. Unfortunately we can't poison a lake the size of Black Lake and start all over again as we can with a farm pond. Partial poisoning has been effective in certain waters of the south under some conditions, but at present is not permitted in New York State. Some other techniques must be developed to reduce the number of panfish in the lake, putting them back in balance with the game fish. There are numerous alternatives, such as changing creel limits, size limits, or seasons to encourage fishermen to harvest more of the panfish. Maybe more information about good ways of using these smaller and easily caught fish would help turn the trick. Stocking of walleye fingerlings instead of fry might help. A final alternative might he to let commercial fishermen do the job under carefully controlled contract so that both their interests and the interests of the fish and fishermen would be protected. The other problem, and one over which we have even less control, is in trying to divert the nutrient pollution that is coming into the water upstream. This involves such things as more careful agricultural fertilization, and either the removal of nutrients from municipal effluents, or some system of putting these on the soil where the water can enter the ground water supply and leave its nutrients on the land where they can produce better vegetative growth. There are several examples of this around the country where it is being done very successfully.

Dutch Elm Disease

Today it seems that the Dutch elm disease is killing off elms at a faster rate than ever. The landscape in my neighborhood is dotted with dead or dying elms. It would seem a shame if this beautiful tree were to become extinct by default. Haven't our biologists solved this problem yet? Isn't there at least a practical treatment for individual trees?

Howard Dean, Cherry Valley

Once the Dutch elm disease becomes established in an area it quickly kills off most of the unprotected elms. However, since the American elm is very prolific, it is expected that it will continue to survive in hedgerows and woods, though few trees will reach the size of the beautiful trees that we have seen in the past. It is hoped that among the survivors in the hedgerows, some with a natural resistance to the Dutch elm disease will develop. This will be a long term thing which you and I will not see, but maybe our great-grandchildren will again see large elms. There are methods of protecting individual trees, but they are expensive and must be carried out systematically by a qualified arborist. These include such things as immediate sanitary pruning of the infected parts, spraying to control the two species of bark beetles that carry the disease, spraying or injecting the trees with benomyl to kill the fungus causing the disease, and treating to prevent root grafts so that the disease can't spread from one tree to the next through the root system.

Bluebird Nesting

Last year a pair of bluebirds nested in a bluebird house (after checking out three). After about a week we noticed no activity and after several cold nights we looked in the nest and found six eggs which we removed. Weeks later two bluebirds nested again and the same thing happened, leaving three eggs. Can you shed any light on this and suggest anything we can do?

Charles R. Porteous, Hillsdale

During actual incubation there is very little activity around a nest. This is the best protection that the parents can give it. I trust you are certain that there were no bluebirds in the vicinity for this period, and checked to make certain that the eggs were cold, before you removed them. The main cause of abandonment, other than being driven from the nest by competing birds, and this would have been obvious, is when one of the pair dies. When it found a second mate it might very well come back to the same nesting box. I would watch your nests carefully this year to see if there are any site changes and predator guards that could be used to reduce possible predation. It is interesting to note that you had three nest boxes, for it has been found that bluebirds prefer nesting territories that have multiple sites like this.

LETTERS

The Three Sisters by Ernest Smith

Courtesy Rochester Museum of Arts and Sciences

Tug Hill

I was glad to find the excellent article on "The Lesser Wilderness" by Sandy Marvinney in the August-September issue. Information on the Tug Hill area has always been difficult to find. Years ago when I was teaching a course on the geography of New York State, I discovered that Tug Hill was the least-known part of the state and that very little information was readily available.

While reading the article I looked for some mention of the Rural Resettlement Project which was begun in the days of Rexford G. Tugwell and the New Deal. If I remember correctly, the area involved in this project was on the southwest slope of Tug Hill east of Mexico in the Mapleview-South Albion area. I recall driving into the area in the 1930's looking for the land included in the resettlement and seeing the poor farms and the government signs.

What was the fate of this undertaking to improve the conditions in rural America during the depression? What has happened to this section in the last 35 to 40 years? Is this experience of any value in attacking the land-use problems of today?

Katheryn Thomas Whittemore, Buffalo

• *As to resettlement projects in New York State I'm afraid that the records will have disappeared from Washington and I have none. The idea was originated at Cornell and was called the Tompkins County project. Roosevelt picked it up and committed the Subsistence Homestead Administration to its expansion after 1933. However, the projects did not work. What did work was the extensive purchases of submarginal lands and their transfer to state or local governments.— Rexford Guy Tugwell, Santa Barbara, Calif.*

Wolves

I am writing to express my feelings on the article, "Wolves in the Adirondacks." This is one of the best articles yet to appear between the covers of your fine magazine.

There is one paragraph which I disagree with. That is paragraph two, column one, dealing with the alleged "likely to raise objections of sportsmen." I am a sportsman and have no objection at all to the introduction of wolves to the Adirondacks. Most sportsmen are conservationists first, and although each is entitled to his opinion, it is my opinion that sportsmen will not object to this great endeavor.

Without a doubt the Adirondacks are by far the most scenic, beautiful and refreshing area of this state. Anyone who would initiate such a project has my full support and I am sure the full support of all sportsmen.

William Downs, Hauppauge

The combined articles in the October-November issue on *Canis lupus* deserve admiration and also some comments.

Might I suggest that if such a program of reintroduction of this noble species into New York State were begun, that before one single *Canis lupus* were set free, a very high protection fine be put on its hide. The average person, through ignorance, is afraid of such creatures as flying squirrels let alone wolves, and among other animals the also noble and so rarely seen otter. In 30 years of visiting Dutchess County I have ample proof of these false notions and superstitions and they are still being passed from generation to generation. Either protect *Canis lupus* with a heavy fine or educate the people of the state. The non-outdoorsman who lives in or near the woods or forest thrives on fear of most wild creatures and must be either forewarned or educated before you could let a wolf loose in his area. Warning the public against trapping, shooting or poisoning these animals might serve as a deterrent.

Eleanor Bazner, New York City

"In Defense of *Canis lupus*" depicts a much maligned beast as a gentleman of the forest, not as the romanticists of magazine fiction (weaned on the pap of Little Red Riding Hood) would have us believe.

The author's reference to Murie's work to dispel the myths surrounding the wolf, overlooks the fact that Dr. William Joseph Long, much earlier in the century, gave us a firsthand picture of *Canis lupus* as he found him in his native haunts. Dr. Long foretold what the behavioral biologists are now seeking to establish in their laboratories. I refer specifically to Long's "Mother Nature," published in 1923 by Harper & Brothers, an elaboration of earlier expressed ideas.

For his remarkable insight into animal behavior, Dr. Long was branded a "nature faker" by President Teddy Roosevelt, and "a Baron Munchhausen of the wilderness" by John Burroughs. The fact is that Long was fifty years ahead of his time as a field naturalist.

Dr. Long thought little of the laboratory method of studying wildlife. He had eyes to see and a heart and a mind to interpret what he saw in a sympathetic manner, and with great literary skill.

I corresponded with Dr. Long for more than a quarter century. I visited him in his home, and spent a little time with him in the woods. I regard him as the most moral man I ever knew. It is my conviction that when society at large "discovers" his work, he will rank with Thoreau.

Bill Toporcer, Penfield

Affirmative

Although I thoroughly enjoy each copy of THE CONSERVATIONIST, the autumn edition which I just received (October-November 1975) is one of the greatest. Not only are the articles interesting and timely but the art works by Robert Abbett, Jenness Cortez and Joseph Turon are outstanding.

Bernard Smith,
Member of N.Y.S. Senate

I have exactly five minutes in my busy and hectic day to just write a special "thank you" for putting together a well written and truly lovely pictorial magazine.

I am now holding the October-November 1975 issue and am anxiously awaiting the

next issue. I find myself clipping out the beautiful illustrations and montaging them on wood using them as plaques for my dining room walls.

There are a few things in life that are well worth waiting for — and one of them is your magazine.

Carol Toppel, Monroe

Thanks to you and your staff for another fine addition to my magazine library in the October-November 1975 issue. Each one seems to get better!

You people sure know how to make an outdoorsman feel office bound! But perhaps I can ease the pain by trying the suggestions in the article on indoor cookery by Marnie and Ken Crowell. Will sure try.

Arch Lowery,
Buffalo Evening News, Buffalo

Negative

Our family started getting THE CONSERVATIONIST in the 1940's with my grandfather first subscribing to it. It was then passed on to my father — then to me. I have been reading it for twenty years without a thought of not renewing it, when it came time. But the time has come not to renew — when a magazine such as yours was meant for all the people of New York, it now appears only to be oriented to the city person.

I do not think it is worth the two dollars for one year's subscription and I don't even believe that it is worth the ten cents for this letter.

Larry A. Warner, Mechanicville

Nuclear debate

I enjoy the excellent articles in the magazine. But I do think your position is too moderate to be truly conservationist. I agree that "forever wild" and "the hunting or fishing" does not ensure preservation of either flora or fauna and you are right to promote careful management. But the same care should apply to agri-business and energy resources and in practice it does not, as you should know by now. Also if you allow space to the proponents of nuclear energy you should allow space for answers, not just in letters; as well as more articles on alternative technology. Man is now an endangered species and nuclear energy is one of the chief weapons man is using against himself. But perhaps you believe that since man is not succeeding in controlling his population very well, some means should be found either naturally (starvation) or in a managed way (war) to kill off the excess. If we should decide that nuclear energy is the way to reduce our size the mutations in future generations to any "lucky" survivors may put a really novel kink in evolution or the survival of the fittest and most adaptable. Science fiction, even, has not dealt with those results. Meanwhile we ostriches keep our heads in the sand and refuse to recognize the imminent possibility.

M. Barron, Downsville

fishing facts

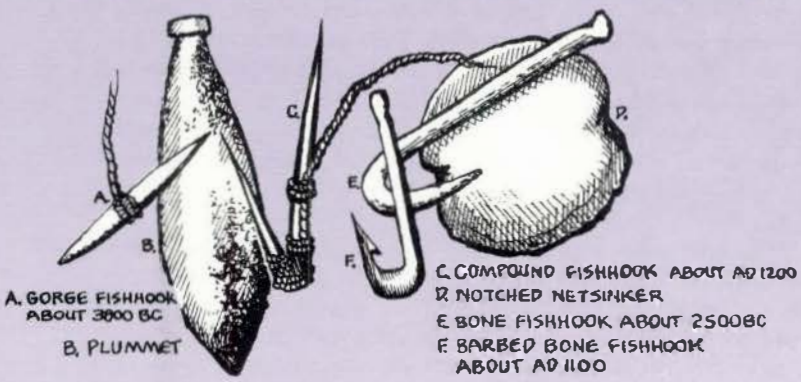
by Jay "Fishy" Fullum

Hook, line and Sinker

TODAY THOUSANDS OF NEW YORK FISHERMEN ENJOY THEIR SHARE OF FRESH CAUGHT FISH. THE EARLY RESIDENTS OF THE STATE ALSO CAUGHT FISH AS A SOURCE OF FOOD. ALTHOUGH WE NOW CATCH SEVERAL SPECIES OF FISH NOT AVAILABLE DURING THE TIME OF THE INDIAN, IN MOST CASES, THE RESOURCE IS AS IT WAS THOUSANDS OF YEARS AGO.

THE MAJOR CHANGE HAS BEEN IN THE METHODS OF PURSUIT. THE INDIAN USED NETS, SPEARS, BOW AND ARROW AS WELL AS HOOK AND LINE. THE METHODS USED BY THE INDIAN HAD LITTLE OR NO EFFECT ON THE RESOURCE BECAUSE THEIR NUMBERS WERE FEW. TODAY SINCE THERE ARE THOUSANDS OF TIMES MORE FISHERMEN, SOME OF THE METHODS USED BY THE INDIAN HAVE BEEN RULED ILLEGAL. DURING THE PAST 75 YEARS WE HAVE LEARNED THAT WE MUST MANAGE OUR FISHERIES RESOURCE.

TODAY A FISHERMAN MAY NET A FEW MINNOWS FOR THE BAIT BUCKET OR EVEN SPEAR OR TAKE CARP WITH BOW AND ARROW BUT THE MAJORITY OF ANGLERS DEPEND UPON HOOK AND LINE TO PUT FISH ON THEIR TABLES.



A. GORGE FISHHOOK ABOUT 3800 BC
B. PLUMMET
C. COMPOUND FISHHOOK ABOUT AD 1200
D. NOTCHED NETSINKER
E. BONE FISHHOOK ABOUT 2500BC
F. BARBED BONE FISHHOOK ABOUT AD 1100

TODAY THE SPORT FISHERMAN DOESN'T NECESSARILY DEPEND UPON FISHING AS A PRIMARY SOURCE OF FOOD BUT LIKE THE INDIAN, THE MODERN DAY FISHERMAN GETS MORE THAN FOOD FROM THE TIME SPENT AFIELD. FISHING FILLS THE STOMACH BUT IT ALSO NOURISHES THE SOUL.

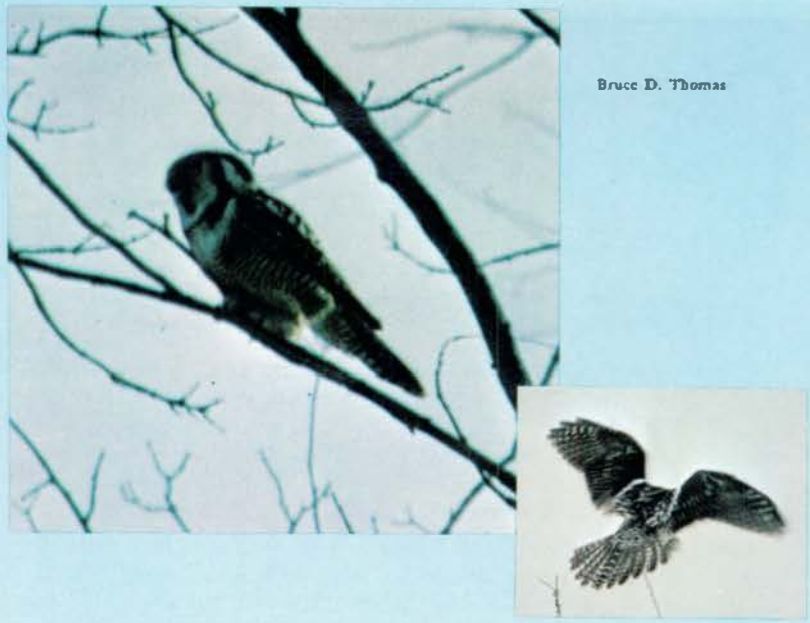
ASK THE EXPERT

As a service to our fishing friends, the expert invites questions on specific topics.

Do you have a question on fishing and equipment? If so, send it in to Jay "Fishy" Fullum.

THE CONSERVATIONIST
50 Wolf Rd., Albany, N.Y. 12233

ILLUSTRATIONS FROM THE ARCHAEOLOGY OF NEW YORK STATE, BY PERMISSION OF DR. WILLIAM A. RITCHIE.



Bruce D. Thomas

The Hawk Owl

by Bruce Darrell Thomas

Periodically, residents of New York have the pleasure of viewing a rare visitor from the north, the hawk owl *(Surnia ulula caparoch)*. When this bird makes an appearance, bird watchers are apt to get excited and converge on the spot where it is first sighted. Such an event took place in December 1974 when a hawk owl was spotted in North Gage, New York. It was quickly placed on the New York State Rare Bird Alert, and for several weeks thereafter birders from all over New York and the northeast deseended upon North Gage to catch a glimpse of this unique owl.

Most likely either of two events will force hawk owls to venture south — a shortage of food — mostly the lemmings, mice and shrews of the Arctic tundra or an overpopulation of young owls, which, driven from the territories of older hawk owls, have no other place to go.

Most owls are extremely wary of humans. Hawk owls, however, are noted for their unconcern for people. The fact that these birds are wilderness species not frequently encountering man, may account for this behavior. Certainly the hawk owl spotted in North Gage was typical. Bird watchers had very little difficulty in spotting the bird, which frequently perched in trees located in the front yards of local residents.

Most owls prefer to hunt at night or at twilight. Hawk owls differ in this respect, preferring to hunt during the daylight hours. During the short summer nights of the far north, most of the hawk owl's energies are spent in feeding its young.

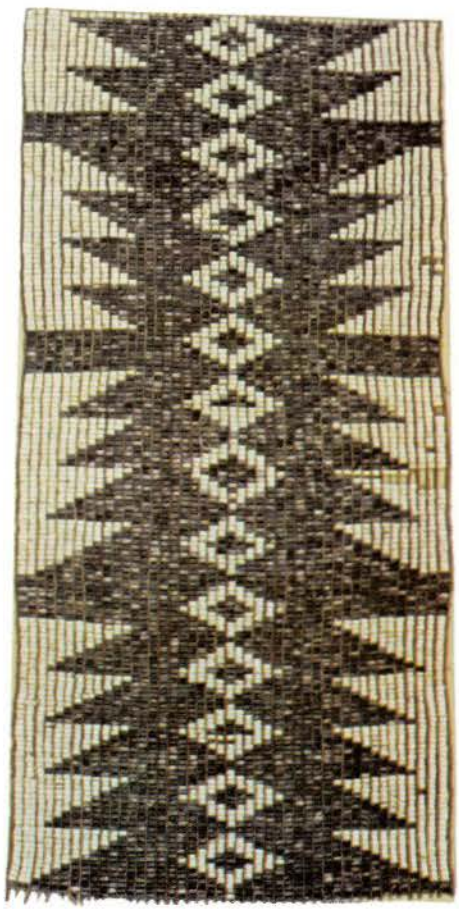
Like nocturnal owls, the hawk owl is noiseless in its flight but in appearance and manner of hunting more closely resembles one of the smaller hawk species. Somewhat smaller than a crow, a hawk owl averages seventeen inches in length and has an approximate wingspan of thirty-four inches. Nesting activities usually occur between April and June. The female lays between three to seven round eggs in abandoned woodpecker boles, natural cavities, stumps or even old nests relined with feathers and moss.

The fact that a hawk owl is so easily approached when it turns up in an inhahitated part of the country has often led to its undoing. But as we become more enlightened and understanding of the role of predators in our environment, the more likely it is that the hawk owl will be left alone to live out its life as part of nature's complex chain.

Wampum

Wampum was much prized by the Iroquois. Made of white and purple seashell, wampum beads were strung into necklaces or woven into belts. The Iroquois attached such importance to the mystical power of the beads that strings of wampum were used to sanction council proceedings, to vouch for the integrity of a speaker, to give responsibility to an office, to solemnize a treaty or to assuage sorrow. Messages of particular importance were also woven into belts and sent by runner among the Six Nations. The Onondagas, traditional keepers of the council fire were also keepers of the League wampums. After the Revolution, wampum took on a new significance with the founding of the Longhouse Religion of Handsome Lake, and wampum was used to lend authority and solemnity to religious ceremonies. The wampum belts depicted on the pages of this issue were provided by the courtesy of the New York State Museum and Science Service.

To-ta-do-ho Wampum Belt



About This Issue (Continued from page 2)

carora Reservation near Lewiston, N.Y., attended school in Niagara Falls, studied music at the Knapp School of Music in Chicago and creative writing at SUNY, Brockport. He recently received a grant from the America the Beautiful Foundation to record the reminiscences of old people on the Indian reservations in New York. He is married and lives in Rochester.

ANN M. LEWIS (Separate Yet Sharing), a member of the Mohawk Nation, is an associate with the Native American Education Unit of the State Education Department. Before joining the education department, she worked as a reading teacher at the Tuscarora Indian School, the Onondaga Indian School and the West Seneca Central Schools. Her special interests include reading, poetry, leatherwork and fishing.

RICHARD E. HOSBACH, M.D. and ROBERT E. DOYLE (Prehistoric Iroquois Medicine) are both involved in research on medicinal and culinary herbs. A pediatrician practicing in Norwich, Dr. Hosbach has, for the past two years, been involved with a study of hypertension in children. He is also an archaeologist, serving as vice president and past president of the Chenango County Chapter of the NYS Archaeology Society. Mr. Doyle is a conservation educator at DEC's Rogers Environmental Education Center. He is a graduate of Western Michigan University, has done graduate work at SUNY Oneonta and at Colgate University. He is currently serving as chairman of the Environmental Task Force and member of the Board of Directors, Chenango Chapter of Citizens Unlimited.

DALE WHITE (We Can Never Go Back into the Woods Again) comes by his skill as an interviewer by virtue of being involved in the creative writing program at Princeton University where he is a senior. A member of the St. Regis Mohawk Nation, Mr. White plans on entering law school upon graduation.

MARTIN B. WASSER (The Six Nations and the State) is special assistant to Commissioner Reid. His familiarity with Indian affairs has come about through numerous dealings with the Six Nations as the Commissioner's representative. A native of Monticello, Mr. Wasser graduated from Yale (summa cum laude, Phi Beta Kappa), took his law degree from Harvard and studied and taught at Trinity College, Cambridge University where he took an honours diploma in historical studies. A practicing attorney, Mr. Wasser was legislative assistant to Senator Birch Bayh (D-Ind.) and, before joining the department, served as law secretary to Justice Robert C. Williams of the Supreme Court of the State of New York.

WILLIAM H. CARR (Inspired by Indians) is familiar to our readers for his stories of Dan Beard (August-September 1973) and Benjamin Talbot Babbitt Hyde (December-January 1974-75). A pioneer in on-site nature education, Mr. Carr founded the Bear Mountain Trailside Museum near Harriman, N.Y. and was the prime mover in the founding of the world-famous Arizona-Sonora Desert Museum of which he is now director-emeritus. An outstanding leader in American conservation, Mr. Carr is the author of numerous books and articles in this field.

DOYLE

DR. HOSBACH

Some of the contributors to our portfolio of Iroquois craft and art are artists who have achieved national prominence. DUFFY WILSON, a member of the Tuscarora Nation made his living as a housepainter and wood carver before turning to sculpture. His carvings are based on the teachings of the Longhouse religion of which he is a member. Interestingly enough, Mr. Wilson carves in steatite, a stone found only in North Carolina, the region from which the Tuscaroras originally came. MARY ADAMS, a St. Regis Mohawk, has been active as a basketmaker for many years. Recently she was invited to present her work at the Festival of American Folklore sponsored by the Smithsonian Institute. OREN LYONS, a member of the Onondaga Nation, is a free-lance artist and author of childrens' stories. A graduate of Syracuse University with a graduate degree in Museum Technology from Cooperstown, Mr. Lyons is currently assistant professor of American studies at SUNY, Buffalo and visiting professor at Hamilton College, Clinton, N.Y. RICHARD CHRISJOHN, a member of the Oneida Nation, is originally from the Muncie Reservation in Ontario. He learned his carving skills from his father and since 1950 Mr. Chrisjohn has carved masks, war clubs and baby boards. TOM TWO ARROWS is a Lenni-Lenape, brought up on the Onondaga Reservation. In addition to being a painter and illustrator, he specializes in carving various Iroquois craft items including flutes, drums, bows and arrows and jewelry. He also fabricates his own costumes from buckskin tanned by himself. He travels extensively throughout the Northeast giving lectures and demonstrations of Indian crafts and customs.

This issue also contains an interesting and important article by PAUL KELSEY on how one community is solving its pollution problems; another by staff member SANDY MARVINNEY on opportunities for women in environmental fields. We are also featuring a special panel on the rare hawk owl by BRUCE DARRELL THOMAS in addition to JAY "FISHY" FULLUM's regular contribution.

CARR

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Where is the Eagle?

Robert Rehbaum

THE Great Chief in Washington sends word that he wishes to buy our land. How can you buy or sell the sky — the warmth of the land? The idea is strange to us. Yet we do not own the freshness of the air or the sparkle of the water. How can you buy them from us? Every part of this earth is sacred to my people. Every shiny 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.

"We know that the white man does not understand our ways. One portion of the 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 father's graves and his children's birthplace is forgotten.

"There is no quiet place in the white man's cities. No place to hear the leaves of spring or the rustle of insect wings. But perhaps because I am 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 lovely cry of the whippoorwill or the arguments of the frog around the pond at night?

"The whites, too, shall pass — perhaps sooner than the tribes. Continue to contaminate your bed and you will one night suffocate in your own waste. When the buffalo are all slaughtered, the wild horses all tamed, the secret corners of the forest heavy with the scent of many men, and the view of the ripe hills blotted out by talking wires. Where is the thicket? Gone. Where is the eagle? Gone. And what is it to say goodbye to the swift and the hunt, the end of living and beginning of survival?"

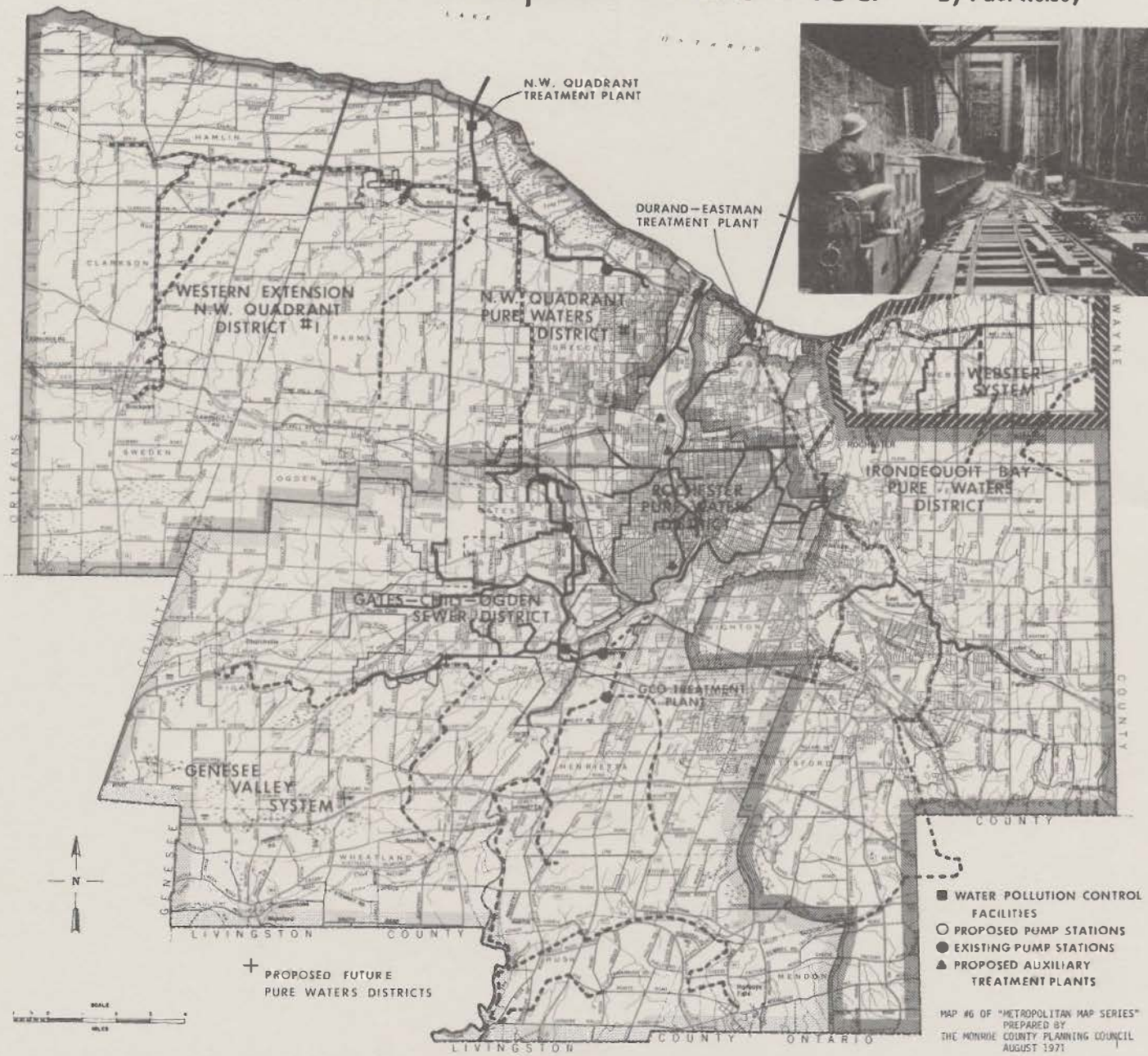
Chief Sealth of the Duwanish tribe wrote these words in a letter sent to President Franklin Pierce in 1855.

EQ News
Supplement to THE CONSERVATIONIST

The Irondequoit Watershed

by Paul Kelsey

Hal Campbell Studios



Master Plan — Pure Waters Agency, Monroe County
(above right) Digging the Cross-Irondequoit interceptor tunnel

Many thousands of years ago the Genesee River turned eastward across the present towns of Rush and Mendon before resuming its northward flow through what is now East Rochester. The advancing glaciers of the Ice Age brought much rubble from the north which was dumped in this east-west section, forcing the Genesee River to seek a new bed northward. The characteristic raw walls of the lower gorge of the Genesee River as it flows through Rochester readily identify it as a post-glacial gorge. The old river valley just a few miles east now collects only the water from the Irondequoit Creek watershed, a land area of 168 square miles. This little area measuring no more than 22 miles from north to south, and 13 miles from east to west at its widest points, has played a key part in the history and development of the Rochester area. The unique qualities of the Irondequoit Creek watershed guarantee it a vital place in the future of the community, par-

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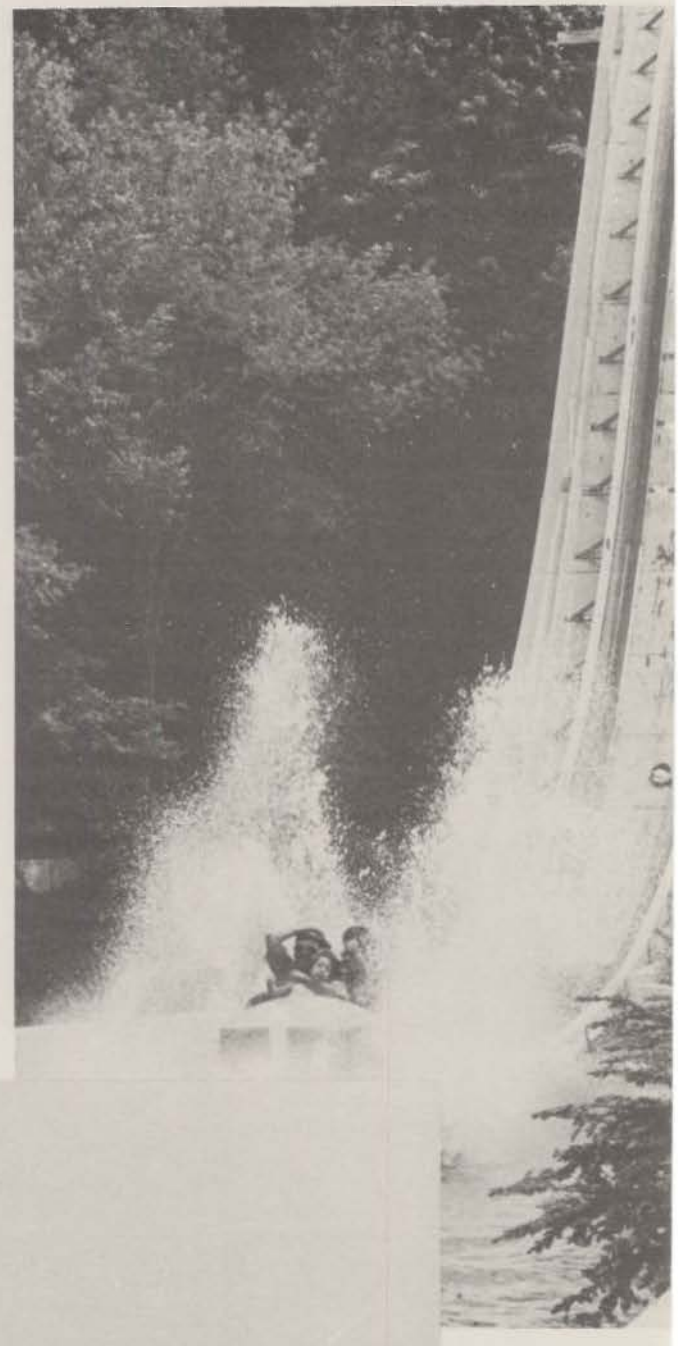
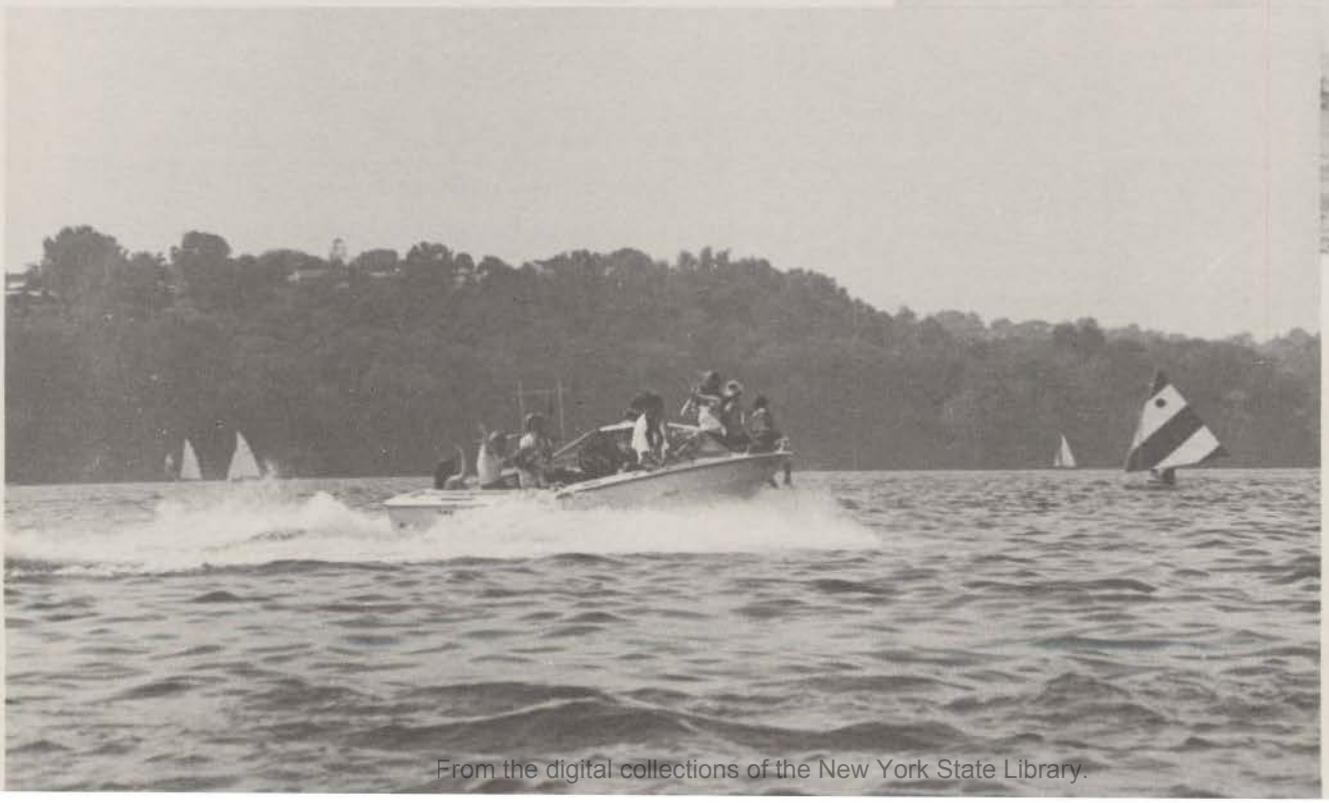
ticularly as an escape from the tensions of metropolitan life.

In what is now Elison Park at the south end of Irondequoit Bay, there was an Indian landing where their travel route headed toward the Ohio River system. To avoid the lower gorge of the Genesee, they landed here and carried overland to the canoeable upper portion of the river. In 1669, René Robert Cavelier Sieur de La Salle landed here in search of a route to western waterways, but the Indians would not reveal their route to him.

In 1687, one of the turning points in the history of this country occurred right in this valley, while the French and the English were probing westward seeking to expand their influence with the Indians and trade for furs. Though the French had the upper hand with the Iroquois Indians, some, particularly the Senecas, expressed their independence and intent to trade with the English. To make an example of the Senecas, Rene de Brisay, the Marquis of Denonville, undertook a campaign to destroy them and thus, he hoped, cement the friendship between the French and the Indians.

On July 10, 1687, Denonville and a force of about 2250 regulars, militia, colonial scouts, and Indians landed on the sand spit at the north end of Irondequoit Bay, where they were joined by about 700 Indian allies from the west. Seneca warriors saw them from the highland above the bay, so speed became vital if they were to destroy the Seneca villages before they could be reinforced. Two days later, after constructing a ten-foot-high stockade, Denonville started his march against the Indian villages about twenty miles to the south.





Despite its problems Irondequoit Bay is still a favorable recreation spot for natives of Rochester and vicinity.

Photos Paul Kelsey

The expected ambush became a reality as the troops were descending a defile into the present Victor Valley. Bedlam broke loose and in the confusion the main forces to the rear almost broke into retreat, but Denonville, who because of the heat, was riding in just his underwear, boots and sword, was able to rally his men and outflank the Indians. This unexpected maneuver caused them to scatter in all directions.

During the succeeding days the French and their Indian allies destroyed the Indian villages of Gannagaro and Totiakton, near the present sites of Victor and Honeoye Falls. Also destroyed were large stores of corn and the new fields of growing corn. This unethical means of warfare disillusioned the Indians and further weakened the bond. Though the French apparently successfully accomplished what they had set out to do, the ultimate result was a strengthening of the English-Indian relationship and further deterioration of their own Indian contacts. Had this campaign been successful, western New Yorkers might be speaking French instead of English.

Again the bay and its Indian Landing became part of the early history of the area, for it was there that John Tryon, founder of Tryon City in 1798, hoped to establish a center for trade and commerce with the newly developing communities to the south. In 1804, the merchants of Canandaigua improved the thirty mile road to Tryon City by widening it to make possible passage of two-wheeled carts. A thriving commercial center in 1812, its life was short, for new roads to the west, and the opening of the Erie Canal in 1825 quickly siphoned away the trade and in 1828 the store was demolished.

Though commerce dictated that the main development in the area be slightly to the west, the Irondequoit Bay area did not lose its charm. In the days that followed, the bay, just over four miles long and three quarters of a mile wide, became a mecca for recreationists from Rochester. Steamers and trains served the many vacation resorts along the shore. Most are just memories, but Sea Breeze Amusement Park, which still serves thousands with its rides and merry-go-round, had its opening day in August of 1879, almost a century ago.

During the late 1800's Irondequoit Bay was one of the favorite fishing spots in New York State, with trout, bass, pike, pickerel and even sturgeon being taken on occasions. Often it was possible to count over 100 rowboats with fishermen on the bay at one time. The Newport House erected a 30-foot square building on piling from which people could fish. This was known as the Minnow House because in its center there was a well extending into the lake where minnows were kept for the use of the fishermen.

By 1890, commercial fishing ceased and recreational fishing began to decline, not because of overfishing but more likely because of the change brought about by the dumping of raw sewage into the bay from nearby communities. Carp, which were relative newcomers to this country at that time, were among the fish to respond most positively to the change in water quality. By 1910 they were considered abundant. In the late 1930's an effort was made to bring them under control with a four year netting program. In 1939, a year the department's annual report shows that almost one million pounds of carp were taken from Irondequoit Bay; a remarkable record of 25 tons of carp were taken in one haul of a net. This was thought to be the largest single haul ever made in New York State. The previous high catch had been a mere five tons the year before.

Raw sewage is now only a problem when heavy rain causes the storm sewers to overflow into the bay. However, there are ten sewage treatment plants that empty their nine million gallons of effluent into the watershed every day. Considering that the average flow of Irondequoit Creek is 90 million gallons a day, one tenth of the water flowing into Irondequoit Bay is sewage effluent. Properly treated effluent is not a serious health hazard, but the bay acts as a sink to catch and utilize the nutrients thus released. Studies of the flora and fauna of the bay over the last 40 years show a marked change consistent with the eutrophication caused by this added fertility.

A study by Herman Forest in 1973, shows that of the emergent plants present when Robert T. Clausen studied Irondequoit Bay, only cattail is holding its own and hardstem bulrush and arrowhead have completely disappeared. The cattail marshland at the head of the bay is playing an important part in reducing the amount of suspended solids that get into the bay, and by reducing the phosphorus and nitrogen loads by about 10 to 16 percent during the summer months. There has been a change in composition of the submerged plants too, for *Myriophyllum*, which was not present during 1939, now dominates some parts of the bay. It is a good indicator of polluted or highly enriched waters. On the other hand, eelgrass and naiad, which do best in clear water, have disappeared.

Studies by the department in 1939 and 1970 show some rather drastic changes in fish life. Eighteen species which were present in the first study were absent in the last. These were fish which thrive in a clear, weedy environment. Five new species normally found in silty or brackish water were present in 1970.

The appearance of brackish water in the bay is interesting, for it points to one of the unique changes that is occurring; that of increased salinity due to the heavy use of de-icing salt in the watershed. During the winter of 1969-70, one percent of all the de-icing salt used in the country was applied in the Irondequoit Bay Watershed. At that time the salt concentration in the surface water was ten times greater than it was during 1912, while the heavier bottom waters had a salt concentration 30 to 50 times as great.

This increase in salinity has had its effect on the hydrology of the bay, for normally a body of water of that size and depth would stratify with warm water on top and cold water on the bottom during the summer, and have a reverse thermal stratification during the winter when the lighter ice would be on top and the warmest water would be at the bottom. Between these two periods are the spring and fall "turnover" during which the waters are mixed and the oxygen content of the bottom layers is restored. Now there is one delayed "turnover" without the winter reverse stratification. This means that the oxygen deficiencies below the thirty foot mark are extended throughout the summer and well into the fall.

The high nutritive content of the water has caused the bay to look more and more like a big bowl of pea soup. At no time now is the phosphorous concentration low enough to limit the growth of algae. These little one celled plants and associated organisms are so thick that during the summer a Secchi disc, used to determine the clarity of water, can be seen only 15 to 24 inches below the water surface. During the cold season of little or no plant growth, one may be seen as deep as 16 feet. Because the light can no longer penetrate as deeply during the growing season, rooted aquatic plants are limited to less than five feet of water.

All this does not mean that there is no longer any fishing

(Continued on EQ News V)

(Continued from EQ News IV)

in Irondequoit Bay, for a cruise around the bay on a weekend afternoon will show that there are plenty of fishermen. Among the most common fish in the creel is the white perch, one of the newcomers. The ubiquitous bullhead is another standby that can tolerate conditions that would drive out most popular warm-water species.

With its high banks the bay is a sheltered haven for small boats, and in spite of the pea soup, there is an ever increasing number, particularly of small sailing craft. The relatively small size of most of the boats on the water in such close proximity to Lake Ontario is surprising until one visits the mouth of the bay and discovers the railroad and highway bridge across the narrow opening. There is a mile long sandbar separating the lake from the bay, which is breached by a sixty-five foot outlet only four to six feet deep. For all recorded history it has been thus. The thirty ton vessels that made it in to the Indian Landing only confirm this, for they only drew slightly over two feet of water.

Paul Kelsey

In recent years many have looked at the outlet as a bottleneck to the size of the boats that can get entry to the bay, and to the flushing out of the polluted water of the bay. A deeper channel with higher bridges would let in larger boats, but the movement of the water out depends on the amount that comes in at the other end. The Irondequoit Creek has a small enough flow so that when there is a good wind from the north, the lake water piles up on the south shore of Ontario, actually stopping the outflow of water, and even pushing some of it back into the bay. Usually the water that comes back in is the same polluted water that flowed out, so it doesn't help. The bay is like a large bathtub with a little water flowing in at one end, and a little flowing over the edge of the tub at the other.

Congress has appropriated money for the opening of the bay entrance to make it a harbor of refuge, pending the completion of Route 104 as an alternate means of access to the east, and a final decision on whether the Hojack Line of the Penn Central Railroad is to be abandoned. The proposed channel 100 feet wide and 8 feet deep would have little long range effect on the water quality of the bay. It has been figured that an opening adequate to effectively improve the water would have to be 200 feet wide and 40 feet deep. That doesn't sound too bad until you realize that a channel 40 feet deep would have to extend over a mile in both directions to reach lake or bay water of that depth.

Cleaning up Irondequoit Bay is going to take a long time, but the first steps are already underway. In 1967 the Monroe County Pure Waters Agency was formed with the object of establishing a countywide sewage disposal system to serve the developed areas of the county. At the same time, it was hoped that it would be possible to guide development into suitable areas by restricting public sewers in areas which were best not developed.

At this point most of the inhabitants of the Irondequoit Creek Watershed are served with public sanitary treatment plants, however, the nutrient-rich effluents from these plants still are discharged into the creek or bay. The paradox of this is that, though the bay usually meets public health standards for swimming, the high fertility produces such an algal bloom, that relatively little swimming is done. Only during periods of heavy rain — two or three dozen times a year — does raw sewage carried in the combined sewers — storm sewers, overflow into the Irondequoit drainage.

Except for a small section of the east shore of the bay, which is in the Webster System, the whole watershed is in the Irondequoit Bay Pure Waters District. The key to the plan for this district, which should be fully operative in late 1976, is the Cross-Irondequoit interceptor tunnel — five and a half miles long and 16 feet in diameter — which will pick up sewage, now treated at existing municipal and institutional treatment plants, and carry it to the Frank E. Van Lare Water Pollution control plant in the City of Rochester. After tertiary treatment there, the clean effluent will be released three miles out in Lake Ontario. Tertiary treatment should remove most of the nutrients, but those that are not should be adequately diluted to prevent further damage to the lake. This system also includes high rate treatment of the combined storm sewer and sewage lines capable of handling a five year frequency storm. With this nutrient load from the municipal sewage treatment plants and storm sewers removed, there should be a gradual improvement in the water quality of the bay. There is some question what effect the 10 percent reduction in water flowing into the bay will have, but it is not expected to exceed the benefits derived by reducing the nutrients.

As one works upstream along Irondequoit Creek, stream conditions are not pristine, but between Allen and Thomas Creeks an occasional trout may be taken. Above East Rochester and its confluence with Thomas Creek, Irondequoit Creek is considered trout water. The Monroe County Park Department has maintained a fish hatchery in Powder Mill Park, stocking approximately 40,000 trout annually in the section of Irondequoit Creek that passes through the park. The Department of Environmental Conservation stocks another 10,000 trout elsewhere in the creek and its tributaries.

The Monroe County Park Department, which has been doing a remarkable job of maintaining green areas within the City of Rochester and the surrounding countryside, has developed three parks within the Irondequoit Creek Watershed. In addition, it has acquired undeveloped land, mostly wetland, at the south end of Irondequoit Bay for conservation purposes.

In 1853, Daniel Curtis Rand was searching for a secluded spot close to a good means of transportation, where he could locate his mill to produce coarse-grained blasting powder. Just a mile from the Erie Canal he found just such a location where a huge spring gushed out of the hillside, and which

had been a regular resting place on the Indian trail leading to the Indian Landing at the head of Irondequoit Bay. Powder Mill Park derives its name from the mill which operated at that site for the next sixty years. The spring now furnishes the water to operate the fish hatchery. Powder Mill is particularly noted for its winter sports activities. There are two slopes with rope tows, one specifically for novices with regular lessons for youngsters wishing to learn to ski.

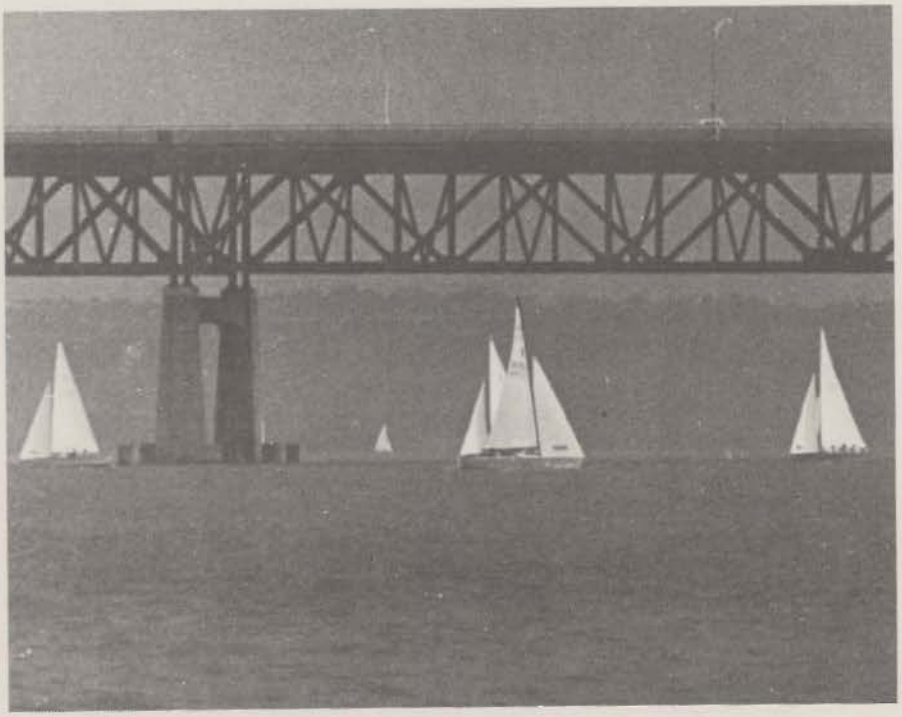
Just four miles to the west as a crow flies is Mendon Ponds Park, a unique geological gem, where eskers, kames, and kettles left by the receding glaciers may be clearly seen. At the visitor's center both the natural and recorded pioneer history of the area are interpreted. School groups are the most common audiences, but any group wishing to have one of the park interpretive naturalists talk can call and make an appointment. Self-guiding trails are available at all times during park hours, with an estimated 80-100,000 people using these trails each year.

At the lower end of Irondequoit Creek, just as it enters the cattail wetlands at the head of the bay, is Ellison Park. It was here that the old Indian Landing was located. The closest of the three parks to the metropolitan area, it has playing fields, tennis courts, picnic areas, and hiking and bridle trails. The undeveloped wetlands between the park and the lake are also part of the park system, but will remain undeveloped in recognition of their natural value for wildlife and water conservation and purification.

One problem common to all areas adjacent to our large cities is that the open countryside is fast disappearing. As people move from the city to the fresh air of the suburbs, services, such as super markets and all that goes with them, come right along too. Then speculators begin to buy up land, and as the value of the land goes up, so do taxes. This has been the death knell for many close-in farms. In 1971 the Legislature passed a bill designed to protect farmland from this assessment squeeze, by authorizing the formation of Agricultural Districts, in which land which was committed to agriculture for five years could not be assessed over an established agricultural assessment ceiling. Two such districts have been formed which include much of the still viable farmland in the Irondequoit Creek drainage area. The Northeast Agricultural District in the Penfield area, and the Southeast Agricultural District in the Mendon area, include 6,500 and 16,000 acres of agricultural land respectively.

Not only will this land be held in agriculture, but as open country it offers extensive outdoor recreation of the type not provided by parks, such as hunting or snowmobiling. There are also many acres of former farmland which is sitting idle in anticipation of later development. It has recently been recognized that the type of urban sprawl which has caused this land to go out of agriculture also is creating serious environmental problems with waste disposal and transportation. County plans are designed to guide future urban development into areas where public waste water systems have been established. If this is accomplished some of the idle land will continue to be good recreation land. The open country suburban development still permits certain outdoor activities, such as nature study, but is not compatible with sports such as hunting or snowmobiling.

In the nearly two hundred years since John Tryon brought commerce to Indian Landing on Irondequoit Bay, the valley has felt the effects of rising civilization, possibly more than many other communities, because of its unique natural attractions and its proximity to a highly developed metropolitan area. The effluent of the affluent society and the associated ills of the urban sprawl have come close to burying the Irondequoit Watershed. The long range vision and planning of leaders in the community have apparently stemmed the tide and present prospects for this fringe area between the city and the country look as though it may end up with the best of both communities to the benefit of all.



Paul Kelsey

Not for Men Only

by Sandy Marvinney

Forestry, engineering and architecture were once almost exclusively male professions. Even ten years ago how many young women envisioned themselves swinging an ax among the pine trees, designing a building or immersing themselves in pollution control technology?

Today many do, thanks to the coincidental emergence of the environmental and women's liberation movements of the early 1970's. To celebrate the varied accomplishments and challenges of women working in the environmental field, the State University College of Environmental Science and Forestry at Syracuse sponsored a conference on October 11 in observance of International Women's Year 1975.

"Women: Their Roles in the Environment drew 225 participants (including a few men) from New York, New Jersey, Connecticut, Massachusetts, Pennsylvania, Ohio, Michigan and Washington, D.C. Panel discussions explored women's professional, educational and community based roles in the environmental field and women's experiences in male dominated professions. Workshop sessions focused on communications, environmental legislation, educational training and career opportunities in the sciences.

While women have made significant strides in the professions in the past several years under recent anti-sex discrimination laws, the conference discussion indicated the employment situation remains difficult for most professional women. It is still harder to locate good jobs, and pay scales and advancement opportunities are not yet on a par with those of men with similar educational and professional experience.

But if the enthusiasm of the young women attending the conference is any indication, more and more will be pounding on the doors of the male dominated scientific establishment. For example, the number of women attending the SUNY College of Environmental Science and Forestry rose from 4.4 percent of the enrollment in 1965, to 19.6 percent in 1975—more than a four-fold increase.

Yet if women are pounding harder on the doors of science, it is really a second go round, as the path for women was first blazed back in the nineteenth century. In the conference keynote address, Dr. Ruth Schwartz Cowan, associate professor of history at SUNY-Stony Brook, emphasized that we have had a kind of historical myopia about women in the environmental sciences, and that women have played a role, though not in large numbers, from the very beginning, particularly in the fields of biology and chemistry.

"We forget," Dr. Cowan pointed out, "that there was a time . . . in which the pursuit of a scientific career was not that unusual. . . . In the nineteenth century women were interested in what was called applied rather than pure scientific work — to do something for people."

Dr. Cowan cited the pioneering career of Ellen Swallow Richards who was born in 1842. As the first woman to attend MIT she received a BS degree in chemistry in 1863, completed two years of graduate work and a dissertation, but was not awarded a Ph.D. because MIT did not want to give its first doctorate in chemistry to a woman.

She was later appointed the first woman faculty member at MIT and for twenty years taught the chemical analyses of sewage, air and water. She also served as a consultant to the Massachusetts Board of Health and published books on sanitation and industrial water analysis. And she never did receive her Ph.D.

While Ellen Swallow Richards was respected as an expert in a traditionally "male field," Dr. Cowan warned that by and large society still tends to devalue whatever is regarded as primarily "woman's work." Dr. Cowan emphasized that the dilemma for women entering the environmental field is to avoid this stereotyping while still bringing a uniquely female point of view to an already established, predominately male science.

"As a woman," Dr. Cowan related, "you have grown up seeing yourself as someone who is warm, receptive, nurturing and helpful because that's what we teach girls to be. . . ." Yet she noted that professional roles often demand a different set of attitudes creating conflict for many women.

Today the environmental sciences are concerned with people and the quality of their lives, and they foster a cooperative rather than an aggressive relationship with nature — a naturally "feminine" attitude. "What this suggests," Dr. Cowan concluded, "is that women going into the environmental sciences today will find less of a strain between their professional set of attitudes and their attitudes as women."

Response to the conference was so enthusiastic that it is hoped a national conference can be planned for next year to reach a wider audience and cover more extensively the increasingly important role of women in the environmental sciences.

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Sketch Book look at deer and Indians

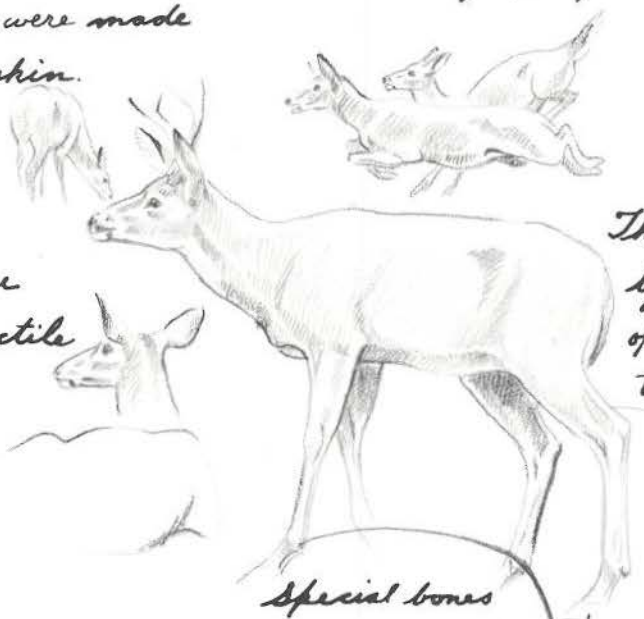
Bones and antler tips were worn as pendants.

The deer was one of the most useful animals in the world of the early Indians, beyond being a source for meat.

Deer hair was sometimes used to decorate clothing.

Antler tips were used in pressure flaking flint tools. Deerskin was often used as a gripping surface.

Garments were made from deerskin.



Bones and antlers were used for awls and projectile points.

Thread was produced by separating fibers of the achilles tendon with pounding.

Bone slivers were sometimes converted to needles.

Special bones on the front feet of a deer are pointed and used to punch holes in deerskin. According to Tom Two Arrows they were called "moccasin bones."

Soaked rawhide wrapped around an axe handle shrinks when drying for secure lashings.

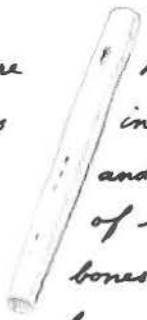
Hoofs were used as dance rattles.

Moccasins were made of tanned deerskin.

Longbones were split for scrapers.

Carved combs were created from bones and antlers.

A jaw bone was ideal for removing corn from the cob for succotash, according to Ray Elm.



Musical instruments and whistles of hollow long-bones, have been found.

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