Columbia Land Conservancy's Conservation Lands

A Journey into the Precolonial Era

Created for the Columbia Land Conservancy by Justin Wexler

Wild Hudson Valley LLC

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Front Page Image: Mohican effigy spoon, passed down in the Van Buren family of Schodack Landing from the 18th Century.

NMAI, 19/8130


The Lenape
Hudson Valley
ca. 1600
Kanienkeh
(Mohawks)
Maheekun
(Mohicans)
Pahkwaayeek
Wusahtunik
(Mohicans)
Waalahnawunge
Wulahneek
Waappiingw
New
England
Algonquian
Peoples
Munusung
(Munsees)
Leekuwunge
Kihtaawunge
Asunung
Thupahn
Wihkwaaskeek
Ahkingashahkuy
Sankhiikan
Leekuweek
Mahtawunge
Madison
Schenectady
Rensselaer
Albany
Schoharie
Chenango
Greene
Columbia
Delaware
Broome
Ulster
Sullivan
Dutchess
Orange
Putnam
Rockland
Westchester
Bronx
New York
Nassau
Suffolk
Richmond

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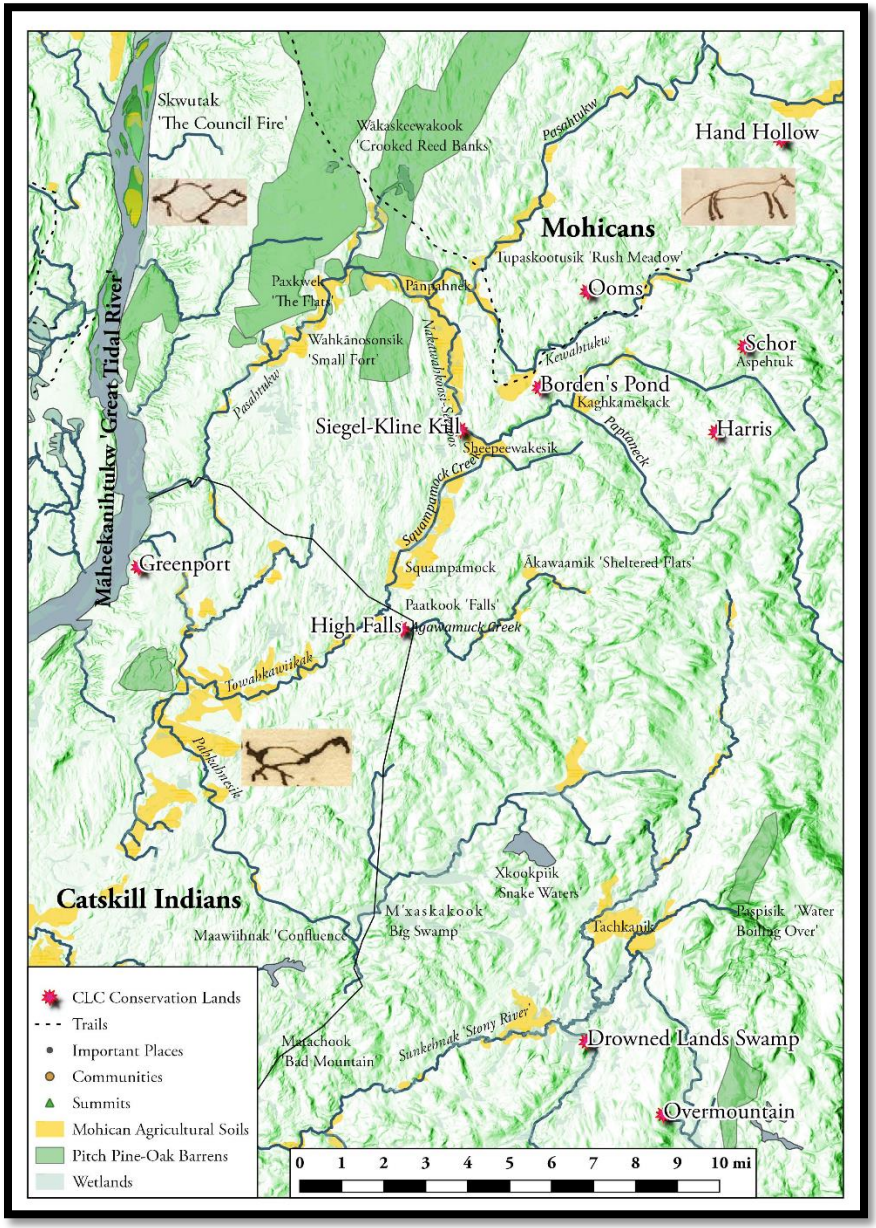

Columbia Land Conservancy's public lands on a map of the region, ~1600.

Acknowledgements

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Support in this research has come, over the last twenty two years, from a number of scholars. A number of Hudson Valley researchers of indigenous history, above all my good friend, Raymond Whritenour, have been extraordinarily helpful over the years. Others to whom I am indebted to for help include (but are not limited to) linguists Ives Goddard, John O'Meara, and Carl Masthay, who have all been kind and helpful in answering my many questions over the years, as has James Rementer, Lenape linguist and ethnographer. Other scholars who have been helpful include, above all, J. Michael Smith as well as James Folts, Tom Arne Midtrød, David Oestreicher, and the archival staff at the American Philosophical Society, New York State Archives and New York State Library. I also am grateful to Dr. Jeffrey Corbin for sharing his research via the sandplains GeoTiff, enormously helpful in locating areas of possible former pitch pine flats.

This work was also not possible without the previous work of the late Shirley Dunn, who spent so many decades examining land deeds to better understand the Mohican People, as well as the works of Conrad and Claudia Vispo, who have done more to understand the Columbia County landscape than anyone. Finally, nothing could have been accomplished without the many years of work by the staff of Hudsonia Ltd., whose encyclopedic knowledge of Hudson Valley ecology will shape future researchers' work for many generations to come.

Finally, I am indebted to the many friends and connections I have made with Mohican/Lenape People over the years and to my loving grandparents, parents, brothers and wife, Anna, for always pushing me onward and for being such an incredible support at all times.

Glossary of Terms

- **Algonquian**: Used by linguists to describe a widespread North American language subfamily that is classified within the primary Algic language family.
    - Algon**quian** should not be confused with Algon**quin**, which is the colonial-era name of an indigenous community of the Ottawa River Valley in Canada.
- **Lenape**: From *lən-* 'real, original, common' and *–aapeew* 'man' and meaning 'human being.' The title used by local native peoples to describe themselves. Also spelled Lunaapeew and, in the Mohican language, Anunãapaaw.
- **Delawaran Languages**: a genetic subgroup of closely-related Eastern Algonquian languages that includes Mohican (upper Hudson Valley), Munsee (lower Hudson/upper Delaware Valley), & Unami (Delaware Valley/Coastal Plain). All three languages descend from a common ancestral language & formed a dialect continuum stretching from Delaware Bay to Lake Champlain.
- **Munsee**: a Delawaran language, most closely related to Unami, and once spoken in the lower Hudson Valley and upper Delaware Valley; the word derives from an important location (Minisink Island in the Delaware River). Still spoken as a first language by one elderly speaker on the Moraviantown Reserve in Ontario
- **Delaware Indians**: collective name coined by colonists in the 18th century for all speakers of Lenape dialects (derives from Delaware River Indians); similarly, the name River Indians was once used for all native people from the Hudson and Delaware Rivers
- **Mohican**: from *Mâheekuneew*, 'Great Ebb Tide Person;' the name used by speakers of Mohican dialects for themselves. The variant 'Mahican' is often used by linguists and ethnohistorians; Mohican has not been spoken as a first language since about 1940.

Iroquoian: An entirely different language family that includes languages such as Mohawk, Seneca, Wendat, Tuscarora and Cherokee (among others). On the eve of colonization, Iroquoian-speaking communities were found to the west of the Appalachians (west of the eastern Mohawk Valley). Contemporary Iroquoian peoples in the Northeast refer to themselves as Haudenosaunee (a word that basically means "People of the Longhouse").

Introduction

The Columbia County landscape has changed dramatically over the past thousand years. In the centuries before colonization, local indigenous communities practiced a system of land management that enhanced biodiversity and resilience in ways we are only just beginning to understand. Early eyewitness descriptions of the landscape of Columbia County are, unfortunately, rare before the beginning of the 19th century. However, an array of resources – including (but not limited to) colonial written records, archaeological reports, linguistic studies, and palynological studies – can help reconstruct an otherwise vanished world.[1] And the lasting impact of native land management practices is arguably still visible today in the composition of local plant communities today. Subsequently, the stories that these records and that living plants can tell us can open up an otherwise hidden world. This report paints a picture of the landscape at each of Columbia Land Conservancy's public conservation areas and the surrounding region in the century before colonization.

The Columbia Land Conservancy protects lands in a substantial portion of *Māheekunik*, the traditional Hudson Valley homeland of the Mohican Nation. The arrival of Dutch colonists in the early 17th century and the New Englanders that followed them would change the region forever. In the decades following the American Revolution, these Eastern Algonquian speakers were forced out of their remaining lands after two centuries of fighting to preserve their sovereignty and way of life. Today, the Mohican Nation's government is located on the reservation of the Stockbridge-Munsee Band of Mohican Indians in Bowler, Wisconsin.[*] But for centuries, the Mohicans were the sole inhabitants of all of Columbia County, and the original stewards of the upper half of the Hudson Valley.

[*] Descendants are also found in the three Delaware Indian communities of Ontario (Munsee, Moraviantown, and Grand River) and two of Oklahoma (Delaware Tribe and Delaware Nation).

The Mohican People

According to oral testimony, the collective *Anunãapaaw* or Lenape ancestors of the Mohican people have always been a people of water. In ancient times, they dwelled on a body of water with great tides far to the northwest.[2] After many centuries of movement eastward, they finally found a new homeland on five great rivers – the Potomac, Susquehanna, Delaware, Hudson and Connecticut.[*] The tidal estuary of the Hudson River was particularly reminiscent of their ancient homeland, and so they named this river *Mãheekunihtukw*, or 'Great Tidal River,' in memory of their origin. Their migration legend is supported by archaeological, linguistic, and genetic evidence.[3] Today, many linguists agree that the Proto-Algonquian language, ancestral to the Mohican language, developed over two thousand years ago in the forests along Lake Superior. And even farther back in time, Algic speakers – ancestral to the Proto-Algonquians – seem to have migrated eastward from an original homeland on the Columbia River Plateau in present-day Oregon and Idaho.[†] Proto-Algonquian speakers spread eastward, settled in places such as the Hudson Valley and, over the generations, new languages developed.

For generations, the Mohican people and their other Lenape relatives dwelled peacefully in *Mãheekunik* on both sides of their namesake river.[‡] They lived on the once abundant fertile islands of the Hudson River estuary north of Stockport Creek and inland along tributary streams such as Kinderhook Creek and the Hoosic River. The Mohican Nation's lands on the eastern shore stretched in the south from Stissing Mountain to Stockport Creek and north all the way to Wood Creek (now part of the Champlain Canal) and the southeastern shores of Lake Champlain. On the western shore of the Hudson, their lands stretched northward from the Vloman Kill, and included Cohoes Falls, the lower reaches of the Mohawk River and the famous herring fishing camps of *Ãmesohãtik* ('Where Herrings Spawn'), what is now called Saratoga Lake. Other Mohican families had long ago crossed eastward over the Taconic Mountains and settled along a narrow, winding river in a place that

[*] This is a brief summary of four versions of the Mohican oral legend of their ancient migration recorded in the 18th and 19th centuries.

[†] The Mohican memory of a origin on a tidal body of water may be a memory of the Pacific Coast; the Great Lakes are not tidal.

[‡] In fact, *Eetoowakaam* – 'Both Sides of the River' – was a hereditary name carried by multiple Mohican leaders from the 17th through the 19th centuries.

they named *Wahsatunik*, 'Beyond the Mountains,' today called the Housatonic.

The Mohicans were allied with related New England Algonquian communities of the Connecticut River watershed. There, they counted as close friends those of Sokoki (Brattleboro area), Pocumtuc (Deerfield area), Norwottuck (Northampton area), Agawam (Springfield area), Tunxis (Hartford area), and, closer by, the tribes of Wyantenock (the Lower Housatonic) and Pojassick/Woronoco (the Westfield River).* Eventually, the Mohican language came to exhibit influence by these neighboring Eastern Algonquian languages of New England; in turn, the Mohican language influenced them.[4] This was likewise the case with a number of Lenape groups to the south who came to call themselves *Waapiingw* and who dwelled along the eastern shore of the Hudson River from the headwaters of their namesake Wappinger Creek in Dutchess County near Stissing Mountain south to the island of Manhattan. Over the course of the 17th century, the coalesced *Waapiingw* or Wappinger People became a part of the larger Mohican Nation.[5]

The Mohicans also had strong allies among their close relatives, the Catskill Indians, whose lands lay to the southwest. Although speakers of a Mohican dialect, colonial-era records demonstrate that this group was autonomous from the larger Mohican Nation, and distinct southwestern vs northeastern regional clusters of Late Woodland/protohistoric archaeological sites in this part of the Hudson Valley confirm the territorial boundaries described by the Mohicans and Catskill Indians later in the 17th and 18th centuries.[6] Likewise, linguists note the former existence of at least two major Mohican dialects, which have been classified as Western and Eastern Mahican, and which may relate to these two groups (and might more accurately then be called Southern and Northern).[7]

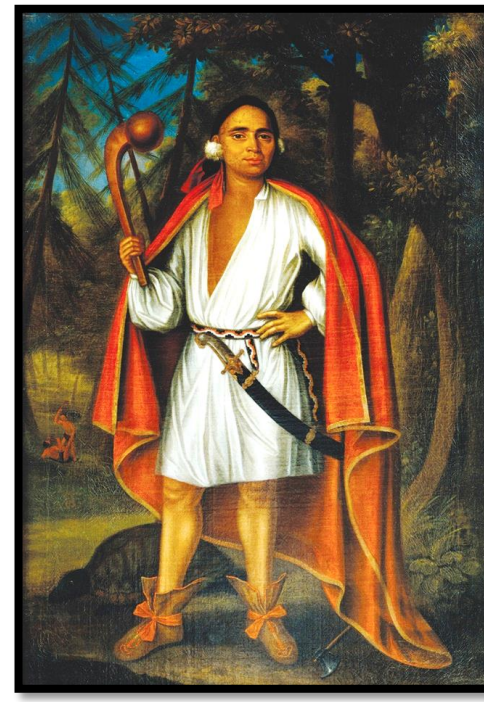
Catskill Indian land stretched south of the Vloman Kill on the western shore of the Hudson River, including the upper Schoharie Valley. Their largest community was that of *Pahkwaayek*, near present-day Leeds, NY. They also

* These groups – along with the majority of Nipmucs from farther east in Massachussetts – became the the refugee community of Schaghticoke on the Hoosic River in Mohican Country after their defeat by the English in King Philip's War. Between the 1680s and 1750s, the entire Hoosic Schaghticoke community immigrated north in many waves to Canada. Their descendants live today in the Odanak and Akwesasne Reserves in Canada, but a number of families also joined the Stockbridge Mohican community between the 1730s and 1760s and have descendants on the Mohican Reservation in Wisconsin.

had territory on the eastern shore of the Hudson River below Stockport Creek along present-day Claverack/Taghkanic Creeks and likely along the lower reaches of the Roeliff-Jansen Kill. They frequently intermarried with the Esopus Indians to their south and with other Mohican people to their north and east.[8]

The Mohicans and their neighbors were and are a matrilineal society. Each individual belongs to their mother's lineage or clan. In the past, there were likely very many clans.* Each was grouped into one of three groups or phratries. These groups are *Toonbaaw* or Turtle, *Ptokwseet* or Round Foot, and *Nahamaw* or Turkey. Known clans included Box Turtle, Snapping Turtle, (possibly Map) Turtle and Yellow Eel in *Toonbaaw*, Bear, Wolf, Dog, and Opossum/Marten in *Ptokwseet*, and Turkey, Heath Hen, Heron (and possibly Deer) in *Nahamaw*.[9] Like their neighbors, the chief sachem of the Mohican Nation as a whole was usually selected from the *Toonbaaw* or Turtle Phratry.[10]

His position was inherited from a maternal uncle or from an older brother, and the position itself was elected by the female leader of the clan (such as his mother or sister) with the approval of a council. He held his place of council, or *Papotaawasuht*, in an island community called *Skwutak,* 'The Fireplace' (which is today known as Lower Schodack Island).[11†]



"Etow Oh Koam (Nicholas), King of the River Nation" by Jan Verelst (1710). The turtle at his feet signifies his clan.

Library and Archives of Canada, C-092421

* At least twelve former clans are known. The upheaveal caused by dramatic population declines, land loss, wars and culture change led to the disappearance of most clans by the 19th century.

† Records indicate that, over the course of the 17th and 18th centuries, head sachems were also selected from the Wolf and Bear Clans. Likewise, the location of *Skwutak* may have shifted over the course of the 17th and 18th centuries, so that by the early 18th century its final traditional location was on namesake Lower Schodack Island. In the 20th century, the

Each one of these clans was led by a hereditary clan leader or *wayawew* and would have inherited one or more watersheds on tributary streams of the Hudson River with the main stem of the stream as a core, forming communities of one descent with territorial boundaries upstream. Such a community, or *ootanay*, centered on the house of the hereditary clan leader, or Big House. This large structure was built to accommodate large numbers of people, acting as a center for political dialogue and public ceremonies. The Big House was also large in order to accommodate the multiple wives that the leader might have; these supported the leader by helping to grow and cook surplus maize and other food for public ceremonies, to help those in need, and for hosting guests.[12] The other members of the community built their one or two-family homes or *wiikwahman* (from which wigwam is derived) nearby, safely above spring floods on the terraces or benches of land that sometimes border rich floodplains. They were placed here and there, sometimes over several miles.[13*]

The people of the *ootanay* inherited a territory that generally encompassed the extent of a watershed; every member understood their inherited territorial bounds with exactness.[14] Signatures on land deeds indicate that *Nahamaw* or Turkey communities were found exclusively among the Catskill Indians and among the Mohican communities of the Roeliff Jansen watershed and adjacent northwestern Connecticut. *Toonbaaw* (Turtle) and *Ptokwseet* (Round Foot, e.g. Wolf and Bear) clan communities seem to have been much more common to the north and east among the Mohicans proper in the Kinderhook Creek watershed, the upper Hudson River and the upper Housatonic. Territorial boundaries were well known to all, and were marked by ridges, streams, and sometimes, by huge stone monument piles.[†] One

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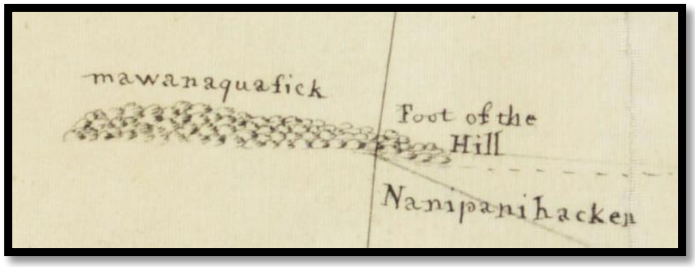
formerly-neighboring Western Abenakis of Odanak remembered that *Skwutak* or Schodack was a place of two council fires, side by side, possibly representing the most prominent Turtle and Wolf/Bear Phratries of the Mohican Nation (Day, 1994).

[*] The word *ootanay* derives from Proto-Algonquian *o·te·wen 'settlement,' directly related to the word 'totem' (as found in some Northeastern and Central Algonquian languages), both deriving from *o:te: 'household group, dwelling, camp.' In the Lenape languages, the word describes a spread out settlement or even the entire district belonging to it, which might cover considerable territory.

[†] The majority of known stone monument piles were dismantled by settlers over the course of the 19th century for building stone fences or house foundations. These monument piles were significantly larger than any of the numberless stone piles found today in former 19th century agricultural fields. The huge network of stone fences, old stone foundations, and stone heaps found throughout the Columbia County landscape and the rest of the Hudson Valley today was created primarily by early 19th century New England settlers.

particularly prominent stone monument pile (made up of three heaps) was located at what is now a corner between the Towns of Taghkanic and Claverack at the height of the Central Hills. This marked the boundary between the Mohicans to the east and the Catskill Indians to the west.[15] There are records of at least six other stone monument piles that served similar purposes and could be found on both sides of the Hudson River, near to the Housatonic, the Schoharie, and Susquehanna.[16]



A depiction of the monument pile that marked a boundary between the Catskill Indians and Mohicans, from 1714 map by John Beatty: "A survey of the mannor of Livingston Manor"

Huntington Library Manuscript Collections, mssHM 15446

In many places, rivers function as political, linguistic, and cultural boundaries. In the Hudson Valley and Eastern Woodlands, however, rivers rarely function as boundaries. Instead, they usually form the heart of a people's homeland or territory. Five centuries ago, on the eve of colonization, the Mohicans and other Hudson Valley native people farmed corn, squash, beans, sunflowers, tobacco, and other crops in *ahkehāakun* or swiddens in the fertile floodplains of creeks and on select islands in the Hudson River, almost exclusively growing their crops in sandy or silt loams (see accompanying maps). In the springtime and early summer, they traveled downstream towards the river to catch anadromous shad, herring, striped bass and Atlantic sturgeons and to harvest freshwater mussels, turtles and edible aquatic plants. In the late autumn, after the maize harvest, they traveled upstream toward the headwaters of streams and camped in the forested hills or mountains. There, they hunted for deer and elk, frequently with the aid of fire, and gathered hickory nuts, butternuts and chestnuts. Later in the winter, some families traveled even farther into the interior on *āakamak* or snowshoes to hunt for bears, moose and for beavers for one or two months in the Taconic and Green Mountains.[17]

Imagining the Precontact Landscape

Plant Communities as Relics of Indigenous Land Management

Decades of research has demonstrated that Northeastern locales dominated by fire-tolerant white oak trees tend to be found in the uplands around known areas of indigenous occupation and horticulture. In contrast, areas dominated by more mesic, fire-intolerant tree species, such as sugar maple, hemlock and American beech, tend to be found in lightly-utilized buffer zones between linguistically-distinct indigenous territories. Around six hundred years ago, the tree species composition changed dramatically in the Northeast as a whole. Research has revealed a rapid decline in mesic climax tree species, such as eastern hemlock and American beech, and a rapid increase in the dominance of white oaks and other oak species.[18] Early written descriptions of Eastern Woodlands indigenous land management practices and some archaeological evidence consistently asserts the use of fire as a land management technique. Therefore, an anthropogenic source of the low intensity burns responsible for this change in tree species is certain.

Native peoples practiced burning to clean the woods and to assist in hunting. As a side effect, the low-intensity burns enhanced edible and medicinal plant species diversity as well as forage for white-tailed deer, Eastern elk, wild turkeys, heath hens, bobwhite quails, and other species. One of the side effects included an increase in edible mast species, such as white oaks, in the yield and abundance of pioneer species of trees such as hickories, and a greater abundance of fruiting shrubs that thrive after burns or disturbance, such as blackberries, blueberries, huckleberries, American hazelnut and hawthorns. The burning would have also increased fruit yield and sweetness due to increased sunlight, decreased plant competition, and increased nutrient input from ashes. The increase in white oak trees also had the side effect of supporting a rich diversity of insect species; white oaks in particular support hundreds more lepidoptera species than any other native tree along with katydids and walking sticks.[19] In turn, the abundant caterpillars (as well as the sweet acorns) support great numbers of birds and other fauna.

In fact, higher diversity in edible mast/fruit tree species today still correlates with areas of known Late Woodland indigenous communities, and not just because of burning: although rare, archaeological, written, and oral evidence also point to active planting of select tree species and a few edible plants.[20] Multiple important food species – including the black walnut (*Juglans nigra*), American plum (*Prunus americana*), and triploid varieties of the American

groundnut (*Apios americana*) – have disjunct populations that seem to be connected with the lowland areas where native horticulturalists were concentrated.

Unfortunately, detailed written accounts of the landscape in Columbia County are almost non-existent before the end of the 18th century, and the landscape had likely already significantly changed by the late 17th century, by which point the native population had been reduced by ~90% from decades of imported pandemics. The few late 17th century and early 18th century descriptions depict the interior as rocky, forested hills with a lowland landscape dominated by young growth of white oak trees (indicating relatively recent disturbance by low intensity burns) and dotted with swamps.[21] Sometimes, river valleys in the uplands are described in journals and surveys as dominated by tall, thin white pines, an indicator of recent disturbance (likely former beaver ponds). 17th century land deeds mostly focus on the most fertile, treeless lowlands, primarily in the western part of the county, and describe them as largely free of dense forest and with hundreds of acres of already cleared land in the floodplains for indigenous agriculture.

This mosaic landscape is supported by other research: indigenous prescribed burns did not affect the entire landscape, as burns happened more frequently in some areas than in others. The farther one goes from concentrated pockets of indigenous communities, such as along the lower sections of tributaries of the Hudson River, the more the forest became (and still becomes) dominated by mesic climax tree species. In fact, multiple analyses of early colonial land surveys in the Northeast as a whole have revealed a wider regional landscape still mostly dominated by American beech (*Fagus grandifolia*) in the interior regions (i.e., buffer zones) that were barely utilized by native people, and the domination of oaks (specifically, *Quercus alba* and *Q. velutina*) in lowland areas that are historically and archaeologically known to have supported the majority of indigenous populations in the Late Woodland/Protohistoric Period, the era just before and after initial colonization.[22]

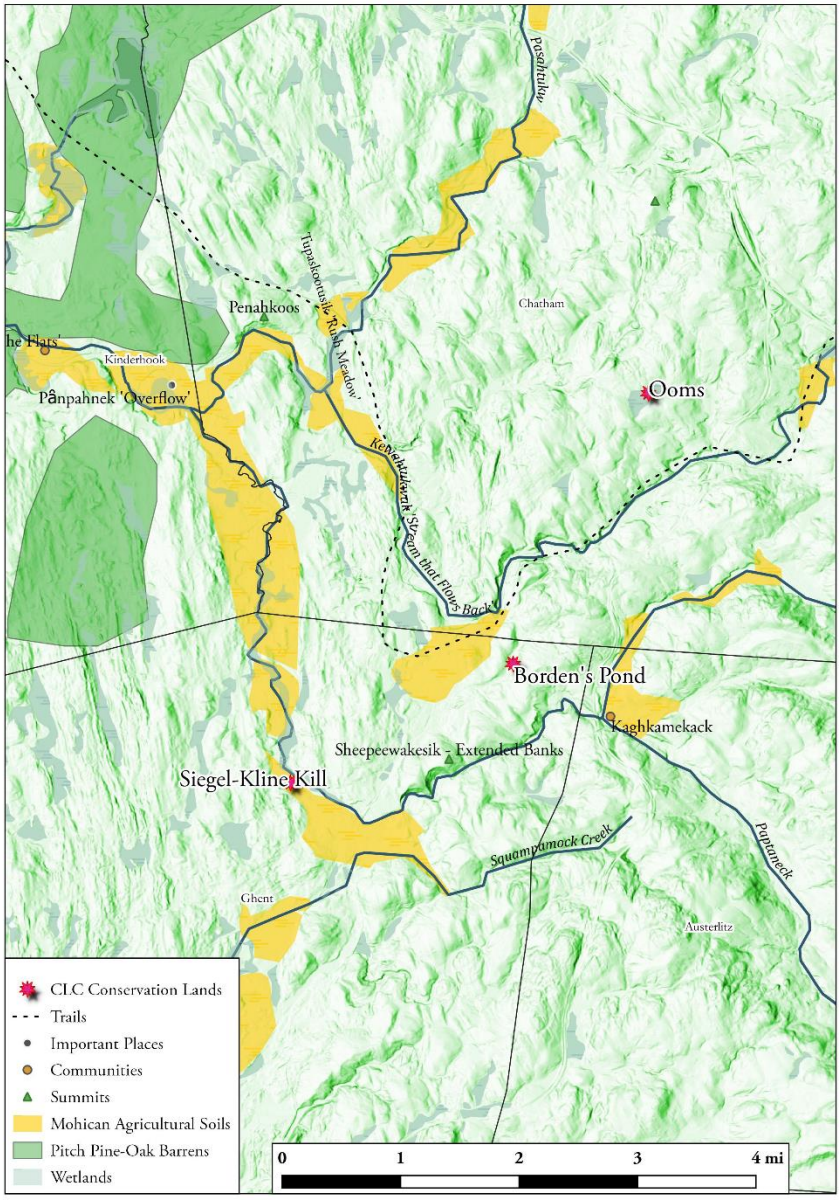
We can thus imagine a mosaic of different habitats: maize swiddens, meadows, fallow thickets, and floodplain forest in and around fertile creek floodplains closer to the Hudson River and Harlem Valley; white oak and hickory-dominated savanna and forest patches in the adjacent uplands; and a mosaic of forest habitats, ranging from chestnut oak/chestnut in rocky places to darker beech and hemlock-dominated forests and extensive swamps

covering vast swathes of interior regions, ravines, and the difficult-to-burn banks of the Hudson River.

This book explores the major habitats of Columbia County through Columbia Land Conservancy's public conservation areas, taking note of how the indigenous Mohican residents would have shaped each plant community there and describing the importance of select species in Hudson Valley native culture. Four sections are explored: the shores of the Hudson River and Claverack Creek, the uplands surrounding the Green River, the diverse landscape of the Harlem Valley and Taghkanic Mountains, and the historically important Kinderhook Creek watershed.

Chapter 1: The Kinderhook Creek Watershed

Pasahtkook



Early records and land deeds indicate that the watershed of Kinderhook Creek and tributaries, such as the Kline Kill, was an area of concentrated settlement for the Mohican People in the 17th and 18th centuries. Some archaeological evidence demonstrates intense use of the area in the immediately-preceding Late Woodland Period.[23] The fertile floodplain soils were and are excellent for growing maize and other traditional crops. The Mohican capital on the Hudson River, located on the islands of Schodack, was in close proximity, along with the seasonal fishing resources of Stockport Creek and the Hudson River itself (fishing camps for anadramous species were rarely farther than five to ten miles away from any settlement). And a series of well-worn trails followed the Kinderhook Creek eastward to winter hunting territories in the Taconic and Green Mountains (see map). Close to three dozen Mohican place names were recorded in the Kinderhook Creek watershed, some of which – such as Tackawasick, Wyomanock, and a few others – are still in use today. Analysis of these place names, when possible, can reveal much about the precontact cultural and environmental landscape.

The Kinderhook Creek seems to have been called Pasanthkak, perhaps from *Pasahtkook*, 'Swollen River (Place).' Early records and some archaeological evidence indicate that the fertile floodplain soils of much of the length of Kinderhook Creek and its tributaries were cultivated by the Mohican People. Each floodplain or flat, which might be differentiated from another by natural boundaries (such as an oxbow, a ridge, or feeder streams), was named. The names for many defined floodplains are found in land deeds and early maps. Later descriptions of displaced native people from the region note that the average family cleared, planted and maintained an *ahkehāakun* or swidden of one to three acres in size in the flats adjacent to their *wikwahm* or house. Every few years, an equivalent quantity of land would have been left to lie fallow for as long as two to three decades to restore the soil. This was a necessity: within a few years, a planted swidden lost fertility or might become infested with insect pests. As a result, a single community of one hundred families might be surrounded by two to six hundred acres of cleared land in various stages of cultivation or succession.

Stone pendant found near Stockport Creek, Woodland Period.

NMAI Collections, 8/6229

In the immediate uplands surrounding the bottomland *ootanay*, the periodic spread of low intensity spring fires from clearing the swiddens, intentional burns from autumn deer drives, and intentional autumn or spring burns for the simple purpose of clearing out the understory also created a mostly open landscape. Subsequently, stretches of lowland in western and southeastern Columbia and adjacent counties were described (or hinted) as mostly treeless or as oak savanna in colonial records. Following the trail of the earliest land deeds is a good way to determine which areas were the most treeless in the precontact period. In Columbia County, the earliest land deeds focused on the most treeless and fertile areas, primarily around modern-day Claverack (Rensselaer Lower Manor), Ancram (Livingston Manor), and Kinderhook (Van Rensselaer Manor and Kinderhook Patent).

As another example, after having sold their best lands in Catskill/Leeds and Coeymans in the previous century, the Catskill Indians then sold their land around Freehold Flats in 1717, three to five decades before selling neighboring parcels, revealing an area (corroborated by a period map) of significantly cleared land surrounded by a largely forested region. In contrast, tree species noted in early accounts of the clay-dominated soils of the generally high banks of the Hudson River – along with ravines and some wetlands – indicate little to no burning in these areas, either from natural fire breaks or because these areas were not a priority to burn. This resulted in a mosaic of older forest in ravines and closer to the river, sometimes dominated by hemlock and beech, surrounded by oak-dominated forests and savannas in various stages of succession.

The plain of deep sand in the region around lower Kinderhook Creek and its tributaries (downstream of the confluence with the Valatie Kill) once supported a forest dominated by pitch pines and associated species, such as various oaks and an understory of New Jersey tea (*Ceanothus velutinus*), sweet fern (*Comptonia peregrina*), heaths and fire dependent herbaceous species (including sundial lupine/*Lupinus perennis*). Many rare or uncommon species of high medicinal value for native people – including spotted beebalm (*Monarda punctata*), goat's rue (*Tephrosia virginiana*), butterflyweed (*Asclepias tuberosa*), and teaberry (*Gaultheria procumbens*) – in addition to the aforementioned sweet fern and New Jersey Tea – would likely have been found in this habitat. Edible species of importance that would have thrived here include various blueberry and huckleberry species (*Vaccinium/Gaylusaccia* spp.), hazelnuts (*Corylus* spp.), dwarf chinkapin oaks

(*Quercus prinoides*), blackberry species (*Rubus* spp.), and wood lilies (*Lilium philadelphicum*).

This pine bush, which included kettle ponds, stretched northward for over fifteen miles towards modern-day namesake East Greenbush, arching around the core of the Mohican Nation in the once island-rich region of the Hudson River that stretches from the mouth of Stockport Creek to the extent of the tide in the north. The proximity of this pine bush to the main settlements of the Mohican People would have proved beneficial to its maintenance because of both intentional and occasional accidental burns. The historic record reveals that the many areas of deep sand soils, which are found in much of the mid to upper Hudson Valley (as a result of Glacial Lake Albany), once supported many fire-dependent pitch pine-oak habitats.[24] With regular prescribed burns by the Mohican People, pitch pine barren ecosystems were once far more common, dominating large swathes of Mohican territory from Kinderhook to Lake George. In fact, these deep sand soil areas overlap almost perfectly with the territory of the Mohican Nation, and few to none are found in the Hudson Valley outside of Mohican Country.

It is highly likely that the Kinderhook pine bush supported a huge diversity of flora and fauna that are now rare or extirpated, including eastern hognose snakes and Fowler's toads, redheaded woodpeckers, bobwhite quails, and the now-extinct heath hen. Likewise, pitch pine-oak-heath forests would have supported an array of plant medicines that are important to the Mohican People to this day, including sweet fern, New Jersey tea, bearberry and sumacs, as well as abundant wild fruit, such as blueberry species, huckleberries, juneberries, chokeberries and blackberries. And the resin-rich fatwood collected from rotted pitch pine stumps was extensively used for candles to illuminate indoor spaces and in the torches used for nocturnal fishing for sturgeon and eels. (The pitch pines were still noted as abundant in the Kinderhook area as recently as the 1930s, but very few and scattered specimens exist today).[25]

Bodies of water in this pine bush included the meandering shores and wetlands of Kinderhook Lake, which seem to have given it the name *Wākaskeewakook* 'Crooked Grassy Banks.' Known to early settlers as the Great Fish Lake, this unique body of water would have provided local Mohican people with a food supplement during the winter months, when *kwunoosaak* or chain pickerel would have been speared through holes in the ice. Rushes for mats and bags and edible wetland plants, including arrow

arum (*Peltandra virginica*) and cranberries (*Vaccinium macrocarpon*), would also have been gathered here, and migratory waterfowl hunted in season.

Upstream and east of Kinderhook Lake, the terrain becomes hillier, rockier and a highly variable mix of glacial till; the landscape is dominated by drumlins or oval hills created by the former ice sheets dragging and shaping debris. Early land surveys indicate that this area was dominated by a mix of white/black oak forest.[26] This was likely created by proximity to the nearby Mohican settlements in the lowlands. Early maps and land deeds also indicate some lowland areas dominated by white pines and black birch (thus likely in succession), and stretches of seldom-burned forest made up of beech, hemlock and sugar maples. In this upland area, one Kinderhook Creek tributary, the Kline Kill, stands out as particularly important to local Mohican People in the colonial era.

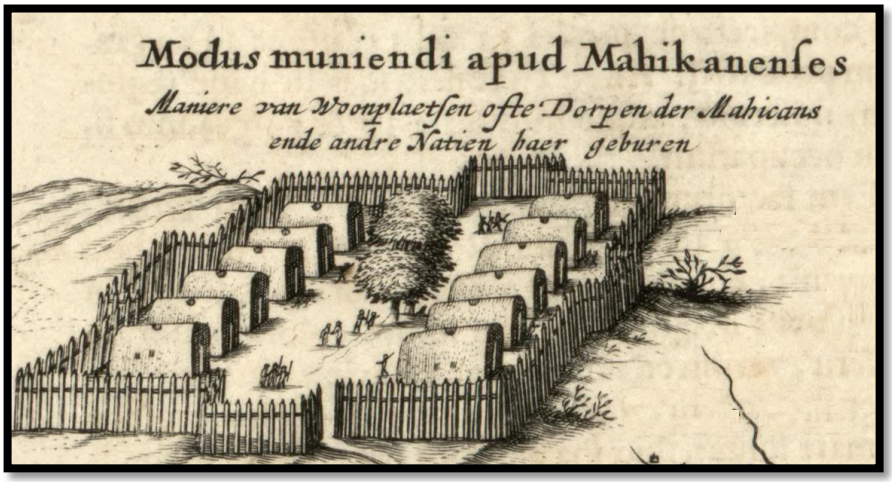
The Kline Kill, 'Little Creek' in Hudson Valley Dutch, is a major tributary of Kinderhook Creek. An early land deed for the area around the stream, along with a later sale, reveal the Mohican name Nakawekassuck. Only two early transcriptions exist, and it is entirely possible that an original letter 'w' in one inscription was transcribed as 'm,' an extremely common mistake. In this case, the name might have been *Nakawahkoosik* or *Nakawahkoosi-Seepoos* meaning 'Sandy Hill River' (perhaps for the sandy hill directly east of the Kline Kill's confluence with Kinderhook Creek). The confluence of the Kline Kill with Kinderhook Creek seems to have been a place of importance. An area of vast, arable flats mixed with wetlands called Pompoenik, mentioned repeatedly in colonial records until the end of the 18th century, was located at this confluence in the floodplains of the Kinderhook, and would have supported a great acreage of maize and other crops.* The name likely derives from *Pānpahnek* 'Where the River Overflows.'

In 1671, an area of concentrated Mohican settlement with a fortification for protection was located nearby somewhere up the Kline Kill.[27] Although the 1671 period was an era of near-constant warfare between the Mohicans and their allies against the Five Nations (which necessitated protection), the fort's presence also indicates a likely earlier strategic importance of this location

* A local Mohican leader, with the same name or more likely, nickname, appears on land deeds and other records for the Kinderhook Creek watershed and Schodack Islands. He was of the Deer Clan. Another place with a potentially identical name (and similar soil) called Pompanuck can still be found far to the north of Mohican Country on White Creek, a tributary of the Walloomsac River.

and, because palisades were built by Hudson Valley native peoples as places of retreat in times of war, also indicates a large population in its vicinity. Another early sale of land at the confluence of Kinderhook Creek with the Kline Kill (1684) described 800 acres of already cleared, arable land in a series of six floodplains. The sellers in this document included Turkey Clan member Sickaneek, who had earlier sold Catskill Indian land in Claverack and likely had rights to the Kinderhook land by marriage (or alternatively, through his father), and Pichketay, noted elsewhere as a Mohican female sachem of some importance in the 1680s.

Half a century later, a more exact location of the nucleated settlement and



A 17th century depiction of a Mohican stronghold during times of war.

"Belgii novi, angliæ novæ, et partis Virginiæ novissima delineatio" from Jan Jansson's Atlantis majoris. Library of Congress, G3715 1657 .J2

stronghold is possibly revealed in a 1733 land deed for the upper reaches of the Kline Kill (where it forks into Punsit Creek and Indian Brook). Here, we find the place name Kaghkamekack, possibly from *Kahkāameekok*, meaning 'Old Grounds/Enclosure.' (Alternatively, the name could derive from *Kaaxikaamihaak* or Crossroads).[28] In fact, the current place name, "Indian Brook," may itself be a record of the important place Kaghkamekack. The 1733 land deed was to two wealthy Albany merchants, Gerrit Johannes Lansingh and Robert Lansingh, who had apparently befriended local Mohicans. The native sellers included the chief sachem of the Mohican

Nation in the early 18th century, Ampamit Sinho, along with his (likely half) brother Manonamp Sinho and other relatives and local leaders.*

In this era, chief sachem Ampamit Sinho dwelled in a small village on Lower Schodack Island (called *Manaahnook*, The Island and often called Mahican Island by the Dutch), which was described as fortified in the 1740s. This was the location of the Mohican capital in the first half of the 18th century. Records indicate that the Sinho family was comprised of at least four sons of an earlier Catskill Indian leader named Sinho. Their varying clan signatures on different deeds indicates two or three different mothers and the importance of matrilineality; their patrilineal surname was a practice likely borrowed from their colonial neighbors. Two of the sons, at least – Ampamit and Nawanaqugheet – were the sons of Mohican Wolf Clan mother Wanaghakea, who maintained land in the Schodack-Kinderhook region and whose mother was likely the sister of important 17th century Mohican chief sachem Skiwias.† That other sellers on the 1733 deed – such as Paghapeet and the sachem Kaghawap – also signed with Wolf Clan pictographs reveals that this region may have been held collectively by a Wolf Clan (or, at least, that the Wolf Clan was important to the area).

The use of initials by some of the sellers indicates some familiarity with writing (if not actual literacy), and the two Sinho brothers on this deed had been signing with initials since 1717.[29] Interestingly, after this 1733 deed, records for the leader Kaghawap shift; between the late 1730s and 1750s, he appears as a witness or seller on three decades of land deeds exclusively in Catskill Indian territory on the west side of the Hudson River. This indicates his likely marriage to a woman of that region (and subsequent relocation). This is one of many examples of matrilocality and exogamy among the native peoples of the Hudson Valley. Men frequently moved into their wives' communities, even if they belonged to a different political or ethnolinguistic group, and once there, were responsible for that community's support.

* Another place name noted in the 1733 deed likely describes the long, steep bluff on the north bank of the Kline Kill immediately upstream: *Sheepeewakesik* 'Extended Banks.'

† In contrast, two of the Sinho brothers, Manonamp and Tawahees, seem to have belonged to the Heath Hen Clan.

Seller signatures from 1733 Indian deed to Gerrit Johannesse Lansingh and Robert Lansingh for a tract of land called Kaghkamekack. At least four of the sellers belonged to the Wolf Clan; in this deed, two drew Wolf Clan signatures.

NYS Archives, A0272-78 V11, p. 131.

Local Mohicans continued to live and farm in the Kinderhook Creek watershed until at least the 1750s. One of their last recorded communities was Kaunaumeek (near Brainard, NY), a community located just upstream that briefly became the seat of a Protestant mission. However, the draw of the growing Protestant mission in *Wnaxkwhtukook* ('River Head' or Stockbridge on the Housatonic River to the north) was strong. As early as 1737, chief sachem Ampamit's son and grandchildren were baptized at the Stockbridge Mission. The family eventually transferred there and would remain prominent members for generations to come, and are now ancestors of many people in the Mohican Nation today.

Their decision to move to the Stockbridge Mission in Massachussetts Bay Colony was partially due to environmental degradation: by the early 1740s, the Mohican leadership complained that settlers in the Kinderhook Creek watershed had "Spoiled Our Hunting [.]"[30] They were also leaving the core of their homeland in New York because of the overreaching of the Van Rensselaer family (who were deeply intertwined with New York Colony politics). In the upper stretches of Kinderhook Creek, the Van Rensselaers could produce multiple deeds proving that they had legally bought the land from the native proprietors. To the south, the Van Rensselaers believed that their Claverack Manor patent took in much more land than the local Catskill Indians and Mohicans had actually sold. The conflict over Claverack Manor reached one dramatic head in 1730.

The earliest land transactions and associated documents (1630s-1650s) indicate that both colonists and indigenous proprietors had initially struggled to understand the meaning of the sales and how to accommodate one another. For example, after the sale of Claverack in 1649, fifty native proprietors stayed at the patroon's house for three days, where they were entertained "…with beer and food, the sachems with strong beer and brandy. They did not want to leave until all barrels and glasses were empty…" This resulted in "great trouble and quarrels with all the Indian people… and great filth and stench, and everything within reach was stolen from him as it could not be protected because of the great number of people."[31] And this was not the end of the transaction. After the purchase, the buyers, going to assess the land, had to supply food, drink and presents every time that they encountered the native sellers, which was frequent. Brant Aertz van Slichtenhorst, director of the colony of Rensselaerswyck, wrote that he "would not want to advise the gentlemen to buy any land from the Indians, unless they had people to populate the places. Otherwise, daily costs would be higher than the purchase

itself... If one does not immediately occupy the land, one has to give presents every time when one comes to the estates again; even more so, because other Christians are waiting for the land."[32]

Over these early decades, indigenous Hudson Valley leaders and colonists would come to a fairly good understanding of each culture's very different ideas of land tenure. The increasing settler population meant that prime agricultural land (i.e., already-cleared native cornfields on islands and in floodplains) was in immediate demand; skyrocketing debt to traders, an ever more environmentally-degraded landscape, and a declining indigenous population due to disease, war, and alcohol abuse led to increasingly willing native sellers.[33] The large body of written accounts left to us during this era (including land deeds, boundary disputes, affidavits and wills) is one of the only existing resources for understanding and reconstructing the precolonial cultural and environmental landscape. For example, as noted in previous pages, we can sometimes identify which Mohican families or clans maintained which watershed territories by examining the hundreds of land records and court records that were recorded over the course of the colonial era.*

Native proprietors sometimes sold land in order to generate income to survive in the new, globalized world they had been forced into; however, over time, more and more land was sold to pay off debts. In a few cases, land was sold out of friendship with local settlers. Early on, a system developed between the two cultures in order to avoid bad blood and to prevent future boundary disputes. Witnesses from neighboring native communities were usually present at a sale – and compensated for their presence – and young, future hereditary leaders were also frequently present so that the transaction could be remembered decades later.

Unfortunately, this did not prevent unscrupulous speculators from stealing thousands of acres by artificially enlarging boundaries, especially in the early decades of land sales. Many of the deeds explicitly describe relatively small tracts restricted to already cleared, arable floodplains. And even when not so explicit, the general use of the word "land" in the Dutch language of these deeds was generally understood to mean "low meadowland" as opposed to the upland "bos" or woodland (when so mentioned).[34] Yet by the early 18th

* The late Shirley Dunn, Hudson Valley resident and respected scholar, pioneered this work of amassing and analyzing the land deeds of the Mohican People and their neighbors, as has independent scholar J. Michael Smith.

century, virtually all of Columbia County was claimed in two huge, fraudulently-inflated patents under the Livingstons (Livingston Manor) and Van Rensselaers (Claverack/Lower Manor), the initial deeds of which were restricted to stretches of cleared floodplain.

When Jeremias Van Rensselaer purchased the Claverack or Lower Manor from the Catskill Indians in 1649, the deed described a triangle of land that should have encompassed the western half of the current Town of Claverack. But confusion around the wording, scrambled place names, and cultural misunderstandings over distances allowed the Van Rensselaers to claim a much larger area than they had actually purchased, encompassing vast tracts of Mohican territory as well. The Van Rensselaers claimed an area that stretched from the Hudson River near the mouth of Stockport Creek northeastward all the way to an eastern corner of Rensselaerswyck (near modern-day Stephentown) and southeastward to the Housatonic River near Stockbridge, MA. This contained virtually the entire northern two thirds of Columbia County and some of Massachusetts. By the early 18th century, Van Rensselaer tenants were expanding his agricultural holdings into this disputed area.

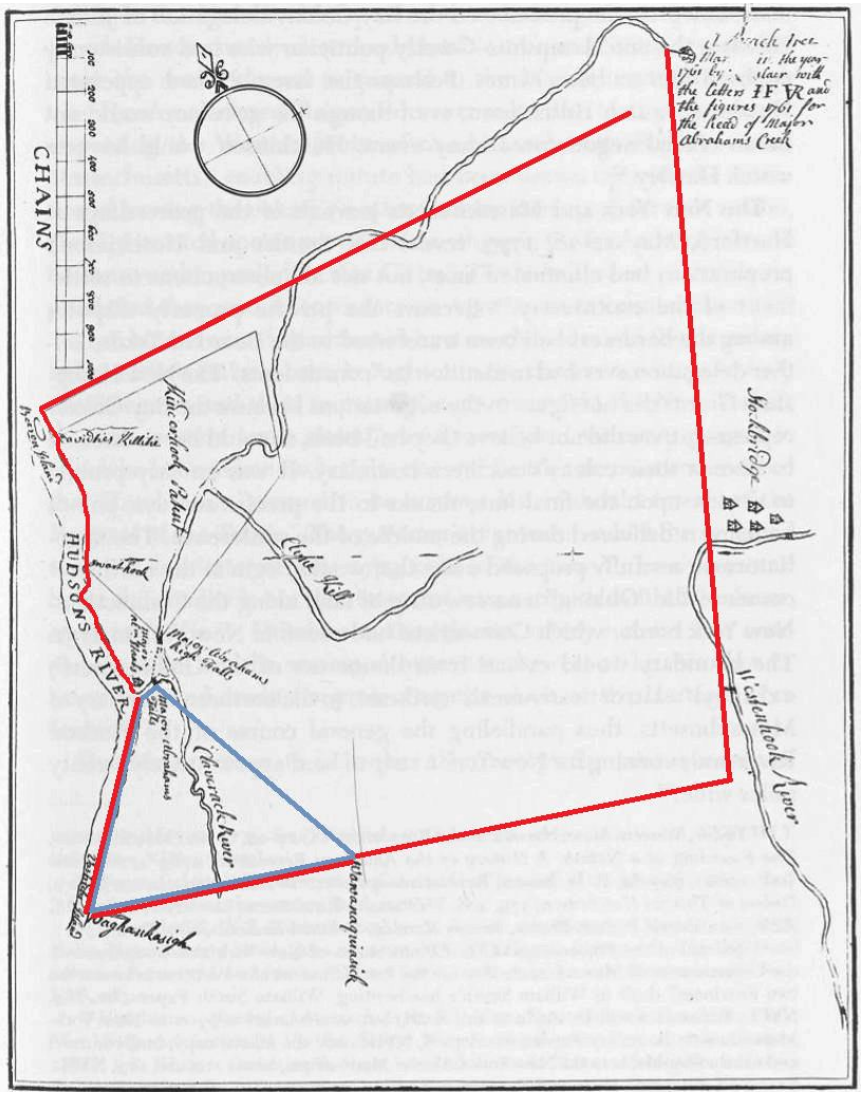
Decades would sometimes pass between a land sale and actual settlement by colonists. Subsequently, the native proprietors usually continued to live on their traditional land. Eventually, the settlers arrived. Unscrupulous Van Rensselaer tenants waited until local native people devoted time and labor to clearing fallow floodplains for new cornfields, and then moved in and took over with the colonial legal system on their side. The Mohican leadership complained about this to the Albany Indian Commission in 1741: "…when We Clean Our Lands[,] Immediately the [settlers] Come & Settle thereon." [35] The Mohican Nation attempted to stop the squatters. One of the larger conflicts centered on over one thousand acres of fertile flats on an elongated section of Claverack (now North Creek) called Squampamuck – the current area of Melenville Flats – which the Van Rensselaers claimed as part of the Claverack Manor.*

Located little more than a mile south of the Siegel-Kline Kill and the nearby Mohican settlements of the Kline Kill and Kinderhook Creek, Squampamuck covered the center of what is now the Town of Ghent and likely had been intensively cultivated by local Mohican people for generations. By 1730, Van Rensselaer tenants were actively farming the land here and seem to have

* Squampamuck may derive from *Skuskwāapumokwat (Seepoos)* 'Greenish Creek.'

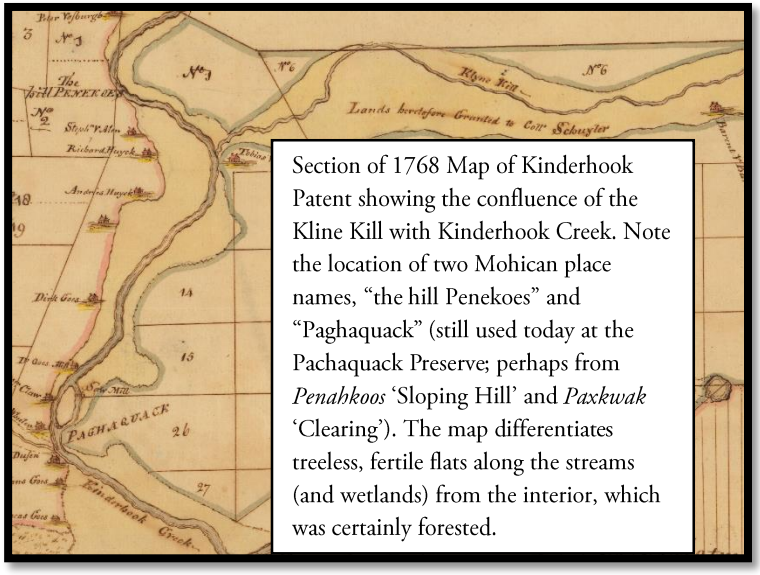
expanded northward towards the Kline Kill. Three angry local Mohican men attempted to drive the settlers out, having been incited by an elderly woman of their group who reminded them that the land still belonged to them and had not been legally purchased. They drove away the settlers' cattle, and threatened patroon Col. Hendrick van Rensselaer and his son Jeremiah "in a very insulting manner."[36] The Mohicans even had four men reap his tenants' wheat, effectively destroying that year's crop, and when van Rensselaer sent two employees to check on the situation, the Mohicans "persued them with Their arrows."[37]

The following year (1731), in a conference with the Indian Commissioner at Albany, the Mohicans were reprimanded and chided for the hostilities. By this point, they seem to have given up their claims to Squampamuck. The Mohican leadership acknowledged that the "…Land of Claverack has been Sold to Coll.l Renselaer, and Squampamick but we know not the peice of Land [Kaghkamekack on the Kline Kill] has been Sold which we have given to Johannis Lansingh, because he is very Civil to us, and been at great Charge & Expences in Provideing us [with] Victualls when we Come to [Albany]…"[38] Within a year and a half, Gerrit Johannes Lansingh had obtained a deed for that very land (the 1733 deed noted in preceding pages). The Mohicans lost Squampamuck, but they had defied the Van Rensselaers and the Albany Indian Commission, and they would continue to do so over the next three decades, selling other parcels of land in the disputed area of Columbia County to many other buyers, especially to New Englanders. The gradual reorientation of the Mohican Nation towards Massachusetts (and growing hostility towards New York) would have profound effects on their future.



Map of Claverack Lands Claimed by John Van Rensselaer, sent by prominent New Yorker Cadwallader Colden to the Board of Trade in 1762. Color added for clarity: the blue triangle represents the land actually sold by the Catskill Indians (largely along what is today called Taghkanic Creek and was once called Claverack Creek). The red boundary – which stretches all the way into Massachussetts – represents the fraudulent claim of the Van Rensselaer family, which largely contained Mohican territory and rightfully angered the Mohican Nation.

By 1770, it seems that well over half of the Mohican population, including their government, had left the Hudson Valley and moved to the Stockbridge Mission in Massachusetts (although many would spend lengths of time, sometimes seasonally, closer to the Hudson River until well into the 19th century before the total move to Wisconsin).* Their exodus was in part based on land loss and environmental degradation, but unscrupulous New York traders also drove many way; at the same 1731 conference noted above, tribal officials complained about local traders plying them with alcohol: "We are poor because your people follow us wherever we go hunting, with Rum and make us bare and Naked, by Enticeing us to drink all we gett, So that we are Ashamed to Come to Town and are thereby disabled to Pay our Debts. We desire that no Rum may be Sold but in Albany only that we may be Quiet on our hunting"[39] Requesting colonial officials to limit the sale of alcohol is an enduring theme among Northeastern native communities in the 18th century.



Section of 1768 Map of Kinderhook Patent showing the confluence of the Kline Kill with Kinderhook Creek. Note the location of two Mohican place names, "the hill Penekoes" and "Paghaquack" (still used today at the Pachaquack Preserve; perhaps from *Penahkoos* 'Sloping Hill' and *Paxkwak* 'Clearing'). The map differentiates treeless, fertile flats along the streams (and wetlands) from the interior, which was certainly forested.

* An unknown but substantial number of Mohicans remained for several more decades in isolated pockets in their Hudson Valley homeland before joining the Stockbridge Mission when it transferred to Oneida, NY at the end of the 18th century. In 1776, the population of Mohicans at Stocbridge was estimated to be about 200, with as many as 500 Mohicans still living in their ancestral lands but with Stockbridge as their capital (Force & Clark, 1848: 903-904.).

Friendship with New England farmers and missionaries and resentment of New York traders and landlords would lead to fervent Stockbridge Mohican support of the rebels in the American Revolution.* With the gradual replacement of indigenous land management practices with Euro-American ones over the course of the colonial era, the landscape changed dramatically. By the time of the founding of the United States, the land could no longer support a traditional indigenous lifestyle, and the Mohican Nation and their neighbors had sold or been defrauded of nearly all of their ancestral land. And yet, the diverse plant species composition today is still reflective of the many centuries of their land management, a testament to an indigenous legacy of enriching biodiversity.

Siegel-Kline Kill

Floodplain Forest

The Siegel-Kline Kill is largely made up of meadow, mature floodplain forest, and younger edge habitat. The meadows of the Siegel-Kline have been actively hayed for decades and were certainly significantly impacted in other ways by Euro-American farming practices for two and a half centuries. Thus, the plant species composition is likely dramatically different than what would have existed four centuries ago; the introduction of Eurasian pasture grasses and associated species, intensive use as livestock pasture and subsequent trampling by large ungulates, plowing, erosion and compaction, and other practices all have major impacts on a meadow ecosystem. However, some things have likely not changed since the precolonial era. For example, fertile floodplain soils and a location between known Mohican communities means that the property was likely in some state of treelessness or was at least periodically disturbed in the protohistoric period for Mohican corn fields. And although the meadow species composition would have been different than what exists today, there are many plants on the property that would have

* It is also important to remember the several hundred conservative Mohican traditionalists who joined the loyalist cause in the American Revolution and ended up living in Ontario during this period; along with those Mohicans who had already been living for generations in the Ohio Country, their descendants are today found in the Delaware Indian communities of Ontario and Oklahoma.

likely existed and that had (or even still have) high cultural value for Hudson Valley native peoples.

American elder is found in many areas along the forest's edge. All parts of the elder are used as medicine by the Mohican People today, and the berries are traditionally cooked and eaten. The dead, dry stems were once a favorite material for the spindles used in hand drills for fire making, and the largest stems could be hollowed and made into blowguns, popular among young boys for hunting squirrels and small birds and used by Mohican descendants in Ontario until the early 20th century. In a few places at the Siegel-Kline Kill, quantities of American groundnuts (*Apios americana*) are found growing at the forest's edge. This vining legume species is often found in abundance in floodplain meadows and thickets. The fine vines die back for the winter, but can be spotted delicately twining around grass stems or shrubs. By late summer, healthy vines are covered in intensely-fragrant pink and maroon blooms and small bean pods. These pods ripen and dry by autumn and contain small, speckled beans that can be cooked like their domestic counterparts. The American groundnut was at one time one of the most important sources of food for native peoples in the Northeast, but not for the beans alone: underground, the rhizomes swell into strings of edible tubers. As many as a dozen tubers – ranging in size from a pea to a baseball – might be found on one plant.

By digging and harvesting them, any tubers left behind grow into new plants, and seem to thrive in the loosened, disturbed soil. Careful harvesting of American groundnuts only increases their abundance. And in fact, larger, faster-growing tubers seem to have been selected for and actively transplanted, resulting in the triploid varieties that are found at the northern extent of the groundnut's distribution. The tubers are traditionally boiled and used in soups or stews or boiled and dipped in raccoon or bear oil as a condiment. They were a most crucial food source in early spring when other food stores might get low; the traditional method for finding groundnut tubers at this time of year is to walk along river or creek banks that have been eroded by flooding or scoured by ice. Any groundnuts growing on the banks are thus exposed and washed by the water, and many strings of exposed tubers can be collected without any digging. The name for groundnuts in Mohican

(and nearly all Algonquian languages) is *ohpunak* or *punak*, which is also the generic word for both edible tubers in general and the slang word for testicles.

Most of the native shrubs and pioneer tree species found on the property today are representative of what would have been present due to both natural disturbance and from the indigenous land management practice of allowing former corn fields to lie fallow for several decades. Cottonwoods, quaking aspens, and big tooth aspens – *Populus* species are collectively called *pãawsuwãahkw* or 'trembling tree' – are abundant along the Kline Kill (and in any disturbed areas of the Hudson Valley). These are an important medicine for the Mohican People to this day; the inner bark is carefully used in a tea for treating fevers and pinworms.[40] The cambium layer is favored as food by beavers, and provides much of the potent sweet aroma found in the beaver's scent glands or castors; these were once dried and added sparingly to tobacco to add a sweet aroma.

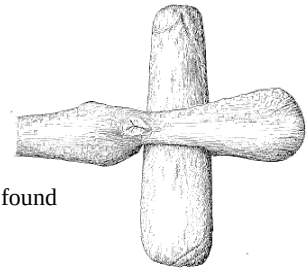
Another tree that is sometimes found in Columbia County floodplains is the hackberry (*Celtis occidentalis*). The ripe autumn fruits were once harvested to add variety to the diet; the thin layer of sweetish flesh surrounds an extremely crunchy large edible seed. The fruits can be pounded, shaped into cakes, and dried for the winter; when needed, these would have been slowly simmered into a sort of fruit-nut milk used for cooking with a flavor that is something like pumpkin purée. Hackberries are a more southerly tree species, and are a good example of the number of flora and fauna of importance to Hudson Valley native people that reach the northern end of their range in the region.

One of the most useful species found in disturbed floodplains and scattered about Siegel-Kline Kill is the slippery elm (*Ulmus rubra*). The Mohican name for this tree was never recorded, but was likely a cognate of neighboring Western Abenaki *pezagholigan* and Munsee *psakholiikan*, both meaning 'glue [tree].' The bark can be peeled off in long strips that, when pounded with water, provide glue for caulking bark canoes. When simmered or boiled, this same mucilaginous substance is traditionally used as a medicine as well as a preservative used when rendering bear oil. The inner bark was also peeled into strong ribbons and processed in wood ash lye; the separated fibers were used as is or corded and used for making utilitarian items, including rope, fish seines, the softest, strongest tump lines, and baskets. And sheets of the bark – like that of the sister species, American elm (*Ulmus americana*) – were

used to shingle houses, make sturdy bark containers and utensils, and to make bark canoes.

Red and silver maples (*Acer rubrum* and *A. saccharinum*), the soft maples, are also typical trees of floodplain forests, with red maples being more common in other habitats (including swamps) and silver maples found almost exclusively in floodplain habitat; both species are a traditional source of a dark blue, nearly black dye that is produced by long simmering of the fresh twigs or inner bark. This can be used for dyeing deerskin, porcupine quills, or even for coloring wooden utensils. The leaves are also made into a tea that is used to treat sore eyes, and with the 17th century introduction of maple sugar production from other native peoples in the Great Lakes region, Hudson Valley indigenous communities sometimes also tapped the soft maples for sugar making (although sugar maples were and are greatly preferred).

The most typical and striking floodplain tree species found here and throughout Columbia County is the American sycamore (*Platanus occidentalis*). According to some contemporary Mohican/Lenape people whose ancestors were displaced from the Hudson and Delaware Valleys to the Moraviantown Reserve in Ontario, the presence of abundant large sycamores indicated where their ancestors should build settlements.[41] The smooth, sometimes enormous trunk of this tree and its typical proximity to rivers also made it a valuable species for constructing large dugout canoes, the primary vehicle of travel for Hudson Valley native communities.



Hafted celt from Dutchess County NY found in pond muck.

Skinner, 1909: 161.

Mohican celt from Waterford on Hudson River, Saratoga County

NMAI 23/8099

Ancient dugout canoe found in the mud of the Hackensack River, NJ.

NMAI Collections, 2/9013

Subsequently, one Munsee name for the sycamore is *amoxoolheew*, 'canoe maker.' A suitable sycamore (or other tree; the tulip tree [*Liriodendron tulipifera*] was the other preferred canoe species) was selected and carefully cut down by burning around the trunk and scraping away the charred wood with a celt. The downed trunk was then cut to size by the same method, and carved to shape (and hollowed out) with burning punk, preferably that of the white oak (*Quercus alba*). The charred wood was scraped from the inside of the canoe with a curved adze made out of a snapping turtle carapace with the edge ground down and affixed to a handle.

Sycamores often become hollow with age, and the cavities provide a nesting space for birds, including wood ducks, hooded mergansers and common mergansers, all of which breed and raise young on the creeks and ponds of Columbia County. Interestingly, the generic name for duck in the Mohican language – *kweecheemuw* – seems to be a cognate to the Munsee word for wood duck. In contrast, the generic Munsee word for duck, *wshihweew*, is also the species-specific name for the hooded merganser. These two generic duck names indicate that tree cavity-nesting waterfowl were considered typical representatives of waterfowl for the native peoples of the Hudson Valley, which subsequently indicates that Hudson Valley native people spent much of their time in and around forested wetlands.[42]

The hollow trunks of old sycamores also provide dens and nesting sites for other animals including flying squirrels, raccoons, owls, and even porcupines. In fact, the traditional Northeastern native method for raccoon hunting is to seek raccoons sleeping in hollow trunks when the weather gets frigid. Trees such as sycamores are searched for fresh scratch marks that indicate the location of an active raccoon den. (Dogs were once also trained to sniff them out). An Indian ladder – a slender tree cut to size and notched for climbing – was then cut and leaned against the tree to give a hunter access to the den; the sleeping animals could be driven out with smoke, or pried out with a stick and killed as they descended to the ground.[43]

Raccoon pelts are softest and warmest in winter, and the meat is a favorite among Northeastern native peoples to this day. The fat is also rendered into a medicinal oil that was once applied to the skin for protection against mosquitoes and other biting insects, to treat wounds, and used as a condiment. The usual name for raccoon in Algonquian languages describes

the animal's love for shellfish, but a unique name in the neighboring Munsee language, *wtakwŭlúnjeew*, means 'soft hands' and describes how exquisitely sensitive raccoon paws are to sensing vibrations under water when feeling for prey.

The nearby Kline Kill would have also been periodically fished – especially in late summer – for native stream species such as white suckers, creek chub, fallfish, American eel, and brook trout. All of these species are traditionally speared (eels at night by torchlight) or shot with arrows and would have been primarily caught by children when water levels reach their late summer low point. Some detailed 18th century eyewitness accounts of displaced Hudson/Delaware Valley native communities describe how much time children spent in the summer swimming and fishing in the creeks that were nearly always adjacent to corn fields.[44] The children would have also occasionally encountered otters, an animal with great spiritual significance for native peoples of the Eastern Woodlands; the case-skinned pelts were traditionally used by the Mohicans for their quivers to hold arrows.[45]

Finally, cobbles of Mount Merino and Normanskill chert – dark green to black cherts of the region – can be found along the Kline Kill. Abundant cobbles of chert or *mahunus* are found along many of the creeks of *Māheekunik*, having been pushed from their sources by glaciers and torrents of water. Actual veins of the mineral were mined for millennia and are found primarily west of the Hudson River. On the east side, chert outcrops can be found on the Mount Merino and Becraft Hills of Columbia County and north near Saratoga Lake in Washington County. This mineral resource provided local native people with an easy source of sharp flakes for making arrowheads, knives, drills, scrapers and other tools, and was also traded to neighboring native communities outside of the region.

Other cobbles found along and in the Kline Kill provided other resources; those of extremely hard, fine-grained siltstone were used for celts (wood-cutting implements), gouges (used for chopping holes in the ice for fishing and beaver hunting), and pestles (used for grinding corn and other grains and nuts in large wooden mortars). Softer shales and mudstones were carved into pendants and other ornaments. And suitably course, hard cobbles, such as those of quartz sandstone, were used as handheld hammers or nutting stones for cracking acorns and other nuts. The repetitive action of cracking hard-

shelled nuts results in the classic central pits found on these tools both in the region and around the world.

The habitats of the Siegel-Kline Kill are a good representation of the rich resources that streams and adjacent floodplains provided to the Mohican People and other native peoples of the Hudson Valley. Even though many dramatic changes have occurred on the landscape over the past four centuries, we can still encounter culturally-important native species and landscape features that can help us to picture a formerly healthier, biodiverse landscape once stewarded by local indigenous people. Although we cannot return to the past, imagining that landscape and learning from native management practices can serve as an inspiration for both present and future stewards of the Columbia County landscape.

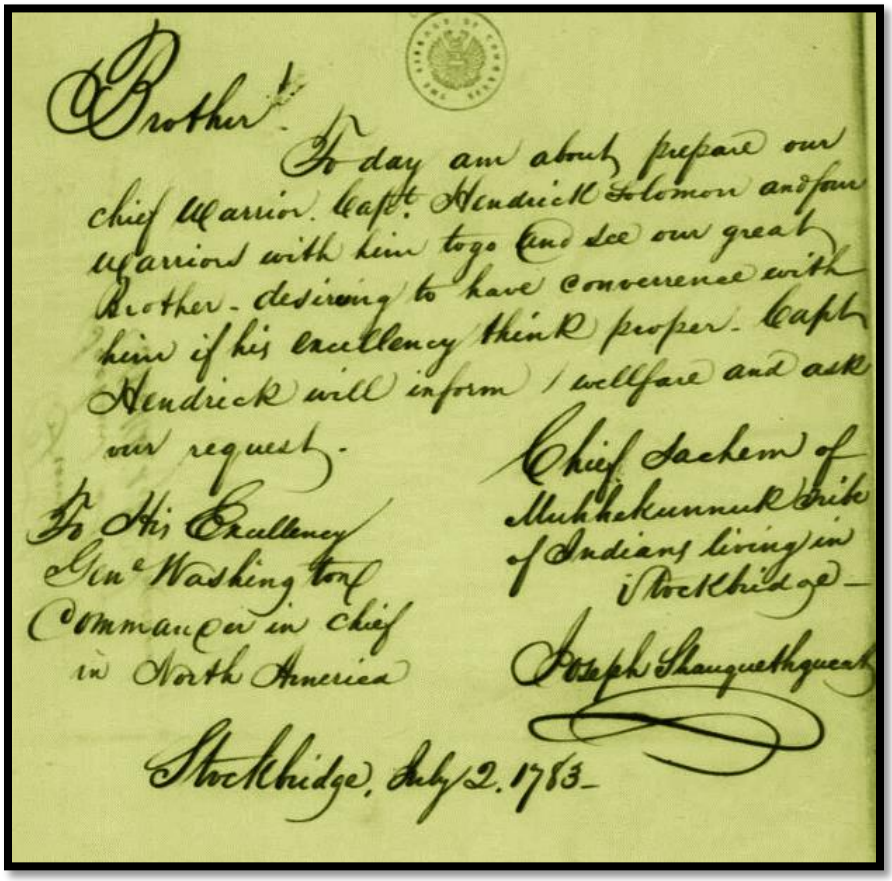
Borden's

Wet Meadow

The upland area of Borden's is located in between multiple fertile floodplains that were cultivated by the Mohicans, such as those of the Kline Kill, Indian Brook, and a few areas along the Stony Kill (primarily, the area from the Columbia County Fair Grounds to the Stony Kill). Due to this central location between areas that were once under cultivation, it is likely that the forest of Borden's was once dominated by white oak trees and other species that thrive after or depend on periodic low intensity burns. Today, the forest of this conservation area is largely dominated by a mixture of oaks and more mesic tree species as well as young wetland and wet meadows.

The rich biodiversity of wetlands makes them places of great cultural importance for native people. Dozens of wetland plants were once vital sources of food and fiber resources, and even more were (and are still) sources of medicine. One common plant of damp places today is boneset (*Eupatorium perfoliatum*), which is valued by native people in the Northeast as a sudorific and for treating fevers. This extremely bitter plant is used sparingly and with great caution. Another common (and striking) wetland plant that often grows nearby is also used to treat fevers, sometimes in tandem with boneset. This plant, spotted Joe Pye weed (*Eutrochium maculatum*), has an important connection to the Mohican Nation's history.

This plant's namesake, Joseph Shauquethqueat Pye, was an 18th century Mohican Nation leader who was a member of the once prominent Stockbridge Mohican Pye family. Shauquethqueat was the son of Benjamin Kokhkewenaunaunt, the last hereditary chief sachem of the Mohican Nation, and by the time he was in his early 60s towards the end of the American Revolution he had also been elected chief sachem. Joseph Shauquethqueat is said to have used his namesake plant to successfully combat a typhoid epidemic among his settler neighbors, and the plant was thus named after him and the name in common use in the Mohican homeland by the early 19th century.[46]


Brother.
To day am about prepare our
chief Warrior. Capt. Hendrick Solomon and four
Warriors with him to go and see our great
Brother - desiring to have conference with
him if his Excellency think proper. Capt
Hendrick will inform / welfare and ask
our request.
To His Excellency
Gen[l] Washington
Commander in chief
in North America
Chief Sachem of
Muhhekunnuk Tribe
of Indians living in
Stockbridge -
Joseph Shauquethqueat
Stockbridge July 2. 1783 -

Letter To George Washington from Chief Sachem Joseph Shauquethqueat (Pye), 2 July 1783.

Gratz Collection, The Historical Society of Pennsylvania [Accessed April 2024 https://rotunda.upress.virginia.edu/founders/]

Other plants of medicinal value can be found outside of the wetlands in the understory of the nearby forest. The beautiful shrub, witch hazel (*Hamamelis virginiana*), has high value as a medicine among the Mohican People to this day, and the astringent tea made from the inner bark is used to treat a variety of issues internally and externally. Another of the more common tree species on this site – and in similar thin rocky soils throughout the region – is the eastern hop hornbeam (*Ostrya virginiana*). The hard wood of this small tree

was and is valued by Northeastern native peoples for tools, ranging from wooden shovels to knife handles. The Mohican word for this tree seems to be lost in time, but there may be a record for it in a 17th century land deed. In the 1685 Livingston deed for Tachkanik, a location is noted with the name Mananosick.[47] Along with having the usual Mohican locative suffix (-ik), the name may be a record of the Mohican word for the hop hornbeam tree, cognates of which are found in nearly every Eastern Algonquian language (such as Munsee *maalaloos* and Western Abenaki *môlaloskws*).

The sugar maple trees that are present on site also have a deep connection to Northeastern native peoples. For centuries before contact, native communities of the Great Lakes had been tapping sugar maple trees (*Acer saccharum*) for their sap to make cakes of sugar and other foods, as noted by multiple early eyewitnesses and evidenced in the extensive indigenous vocabulary for the sugar making process in some Algonquian languages, such as Anishinaabe. In contrast, the Mohican language (and other closely related Eastern Algonquian languages, such as Munsee) borrow words from Dutch and English to describe sugar/syrup, hinting that the practice had not spread to them until the colonial era. And yet, by the late 17th century, sugar making had become hugely significant for Hudson Valley native peoples, who came to rely on maple sap as a source of food and medicine. To this day, sugar maples hold high cultural and spiritual value for members of all six displaced Hudson Valley communities in Wisconsin, Ontario and Oklahoma.

Finally, on the steeper slopes, the mature forest – which is dominated by maples and oaks – likely descends from those that existed in these uplands in precolonial times. The oak species that are present include representative species of both the red and white oak groupings, which were and are distinguished from one another in Eastern Algonquian languages just as they are in English. For example, in the Munsee language (and neighboring New England Algonquian languages), the word for the white oak group (and for the white oak itself) is *pakaxkiimiinzhuy*, which describes the acorns as those preferred for food. In contrast, the red oak group is called *wiisahkakw* or 'bitter tree/s.' And as has been noted elsewhere in this work, the presence of white oak trees is almost certainly due to centuries of low intensity prescribed burns by the Mohican People to maintain their hunting grounds and to clean fallow agricultural meadows in the nearby lowlands.

Ooms

Meadows

Ooms is largely made up of open fields today, a habitat that was once primarily found in fallow former corn fields, around areas of concentrated settlement, and in regularly-burned hunting grounds with deep sandy soils or thin soils. Traditional Eastern Woodlands cultivation techniques relied on fire to clear vegetation and brush from fallow fields, followed by loosening the soil, planting it, and hilling it several weeks later around the growing cornstalks. Over the course of two millennia, native communities in the Hudson Valley transitioned from growing Eastern Agricultural Complex crops – such as goosefoot and little barley – to exclusively growing cultivars of eight row flint corn (*Zea mays* var. *indurata*) and later, lesser quantities of flour corn (*Zea mays* var. *amylacea*).

Wooden shovels and bone- or stone-headed hoes (usually made from the shoulder blade of a deer or moose) were used for breaking up the soil, hilling and weeding. Hilling the eight row flint corn – that is, planting three or four seeds in a cluster (rather than planting in rows) and scraping surrounding loose soil into a small mound around the stalks – helped to support the growing corn stalks, smothered nearby germinating weeds, and preserved soil moisture like mulch.[*] Pole beans (*Phaseolus vulgaris*), introduced to the region in the early 14th century, were planted around the previously hilled corn so that the bean vines could climb the stalks. Long-vined pumpkin/squash (*Cucurbita pepo*) cultivars were planted along the field's edges, spreading along the edge and sometimes into the hills of corn and protecting soil moisture with their large leaves. The prickly vines also would have deterred sensitive-pawed raccoons from raiding late summer corn-in-the-milk.

After a few years of cultivation, pole beans, like other legumes, restore some nitrogen to the soil, which is otherwise soon depleted by hungry maize plants. However, even with the bean plants' help, after a period of five to ten years the field would have to be left fallow for several decades to restore the soil to its original fertility. No other form of amendment or fertilizer was used; even

[*] Many who are interested in "Three Sisters" cultivation today misunderstand what hilling means, and plant these species on top of large mounds.

for early spring clearing, old corn stalks and other debris were collected to the edge of the field and burned rather than allowed to enrich the soil as decaying organic matter. Traditional Eastern Woodlands planting techniques (without mulching or other soil amendments) combined with the loss of tree cover resulted in runoff and sometimes, excess sedimentation of rivers, a process that greatly increased as maize fields expanded in the five centuries before colonization.[48]

Mohican wooden mortar and stone pestle that passed down through generations of the Halenbeck family of Hillsdale, NY (ca. 1725).

National Museum of the American Indian, Catalog Number 13/7179

Mohican wooden mortar and stone pestle from Great Barrington, MA (18th century)

NMAI 14/2611

Mohican wooden mortar and iron pestle collected near Hudson, NY (18th century)

NMAI 14/2611

Allowing fields to lie fallow for decades was absolutely necessary to support future abundant crops of maize, and had the added benefit of preventing the buildup of weeds and insect pests. Subsequently, for every acre of cultivated land around a settlement, it would not be unreasonable to assume two to five acres of fallow open land, both field and in some state of transition (meadow, thicket and young woodland). A number of records from the 18th through early 20th centuries indicate that the average family cultivated from one to three acres of land in a given year. Subsequently, a settlement of 300 people (~50 families) would be surrounded by ~200-600 acres of cultivated and fallow open land. This patchwork of disturbance would have supported a vast diversity of species, including many that were extremely important as sources of food, medicine, and tools for the Mohicans and their neighbors.

Today, the open fields of Ooms continue to support many of the meadow species that were and are so important to Northeastern native peoples. Arguably, the most important of all is common milkweed (*Asclepias syriaca*). The cooked late spring shoots of milkweed are still a favorite green vegetable for the Mohican People and other Eastern Woodlands peoples today. Moreover, common milkweed – which is the only edible milkweed species in the region – is utilitarian. The sturdy, long stems are a source of fine fiber for sewing thread, fishing line, and for weaving bags. The fiber is separated from the stems late in the autumn after freezing weather, retted, and corded. Common milkweed is also a medicine; the sweet, highly-perfumed flowers were even reduced into a nectar-rich syrup that was used to treat respiratory disorders. And the white latex-sap found in the entire milkweed plant is still used to treat warts. The Mohican name for common milkweed seems to have been lost with the language, but may have been similar to the plant's name in the closely related Munsee language – *pihtookŭnahm*, which describes how the flowers (and pods) grow in pairs.

The fibers of a closely related inedible species, the swamp milkweed (*Asclepias incarnata*), were valued even more highly than common milkweed for their strength and above all, for their whiteness after processing. Swamp milkweed was thus known in Mohican as *wãapahnpak* or 'white fiber plant.' The soft, white cords made out of swamp milkweed fiber could be dyed or left as is and twined into ornate bags used for holding objects of importance. [49] Swamp milkweed can be found in damp places and on the edges of wetlands, such as

along Southerland Pond. Another, more utilitarian fiber species with less refined fiber – Indian hemp (*Apocynum cannabinum*) – is also found in abundance in fertile meadows, and is called *weeskahnpak* in the Mohican language or 'bitter fiber plant' to differentiate it from the edible common milkweed.[50] This species is used as a medicine by the Mohican People today in Wisconsin. The fibers of Indian hemp were also highly valued for thread, fishing line, and cordage for twining pouches and bags.

Twined Northeastern pouch, early 18th century. The sash of late 17th century Mohican sachem Eetoowakaam has an identical pattern, which is a symbol of freedom to wander the landscape (see his 1710 portrait on page 11).

Museum Quai Branly, 71.1878.32.71

The rolling open fields that dominate Ooms support grassland species that were likely once found primarily, for example, in the large fallow meadows of the more fertile lowlands of the Klein Kill. These grassland species are not restricted to herbaceous plants and associated insects, but also include many grassland bird species which are mostly in decline today. In fact, early eyewitnesses in the Northeast described many now-rare grassland-dependent birds as common, and did so in a time before the interior had been cleared for pasture by New England settlers after the mid-18th century.[51] This indicates that fallow meadows created by native peoples – along with natural meadows created by beavers and those found in places that experienced some frequency of natural burns – were capable of supporting these species long

before the wider landscape was largely cleared of trees between the 1760s and early 20th century.

One of the more common and noticeable grassland birds still in the area and found at Ooms is the bobolink, known as *shkaakws-awehleeshoosh* or 'skunk-bird' in Munsee (the Mohican word is lost). Centuries ago, the bobolink shared habitat with now extremely rare or extirpated species of cultural importance including upland sandpipers, common nighthawks, and the now extinct heath hen. In fact, the heath hen was of enough importance to be one of the clans of the Mohican Nation and their other Lenape neighbors to the south in the Delaware Valley. This eccentric and iconic bird – possibly a subspecies of the greater prairie chicken – was found exclusively in fire-dependent savanna habitat in the Northeast, ranging from coastal heath barrens to interior fallow savanna habitat, pine barrens and frequently-burned highlands. Called *ahamaw* in Mohican, the heath hen relied on dense thickets for cover, and was likely only locally abundant in select areas.



Above: Mohican Heath Clan signatures from various 18th century deeds

Below: Very early painting of Heath Hen (*Tympanuchus cupido*) by Charles Collins (1742).

Birds, Vol. 7, McGill Library Archival Collections, CA. RBD MSG BW002-510.

Although dominated by meadows today, the region around Ooms was likely forested in the Late Woodland Period; the adjacent stretch of the nearby Stony Kill does not have the broad flats of deep, fertile silt/sandy loam soils necessary for traditional Lenape/Mohican agriculture.* However, the location's close proximity to the vast fertile stretches of the Klein Kill and Kinderhook Creek (within less than two miles) mean that the forests of the location would have experienced some frequent disturbance due to intentional low intensity burns for hunting. Thus, the tree species composition was likely dominated by oak species and sprinkled with pitch pines. In a 1684 land deed, the Stony Kill seems to have been called Kewaghtequak (based on the wording, this may have alternatively been another name for the Klein Kill); in the deed, three "white-barked oak trees" are noted as boundary markers.[52] Kewaghtequak is likely *Kewahtukwak*, 'Stream that Turns and Flows Back."[53]

Early maps and records indicate that the Mohicans had a trail that followed the length of the Stony Kill. This trail – the route of which was later followed (in part) by the Boston-Albany Railroad – connected communities of the lower reaches of Kinderhook Creek to the communities of the upper Housatonic Valley, including the important winter hunting grounds of the upper Housatonic known as *Pontoosuk*, 'Place of Winter Deer,' near modern day Pittsfield, MA. The etymology of this name was given by the 19th century Mohican leader and minister Rev. Jeremiah Slingerland, who grew up in the Mohican homeland and was a guiding hand in bringing his people to their current location in Wisconsin.[54] Like other Northeastern indigenous trails, this route took advantage of topography and followed valleys, crossing streams at fords and, when possible, going along the tops of ridges to provide extended views of the surrounding countryside. It was but one of many trails that would have been regularly used by travelers and by families making seasonal rounds to hunting grounds, and would have crossed through stretches of primeval interior forest. These ancient trails were narrow,

* In contrast, by the Late Woodland Period the Haudenosaunee or Iroquois Nations of central and western New York and adjacent areas were farming primarily in glacial till soils of the uplands around their nucleated fortified hill towns. Coastal Algonquian groups – such as the Lenape communities of the Hudson Valley – seemed to exclusively farm and dwell in spread out communities along floodplains with fertile sandy/silt loam soils (and occasionally on islands or the shores of lakes).

sometimes described as worn deep into the earth (as much as a foot), and frequently obstructed by fallen trees.

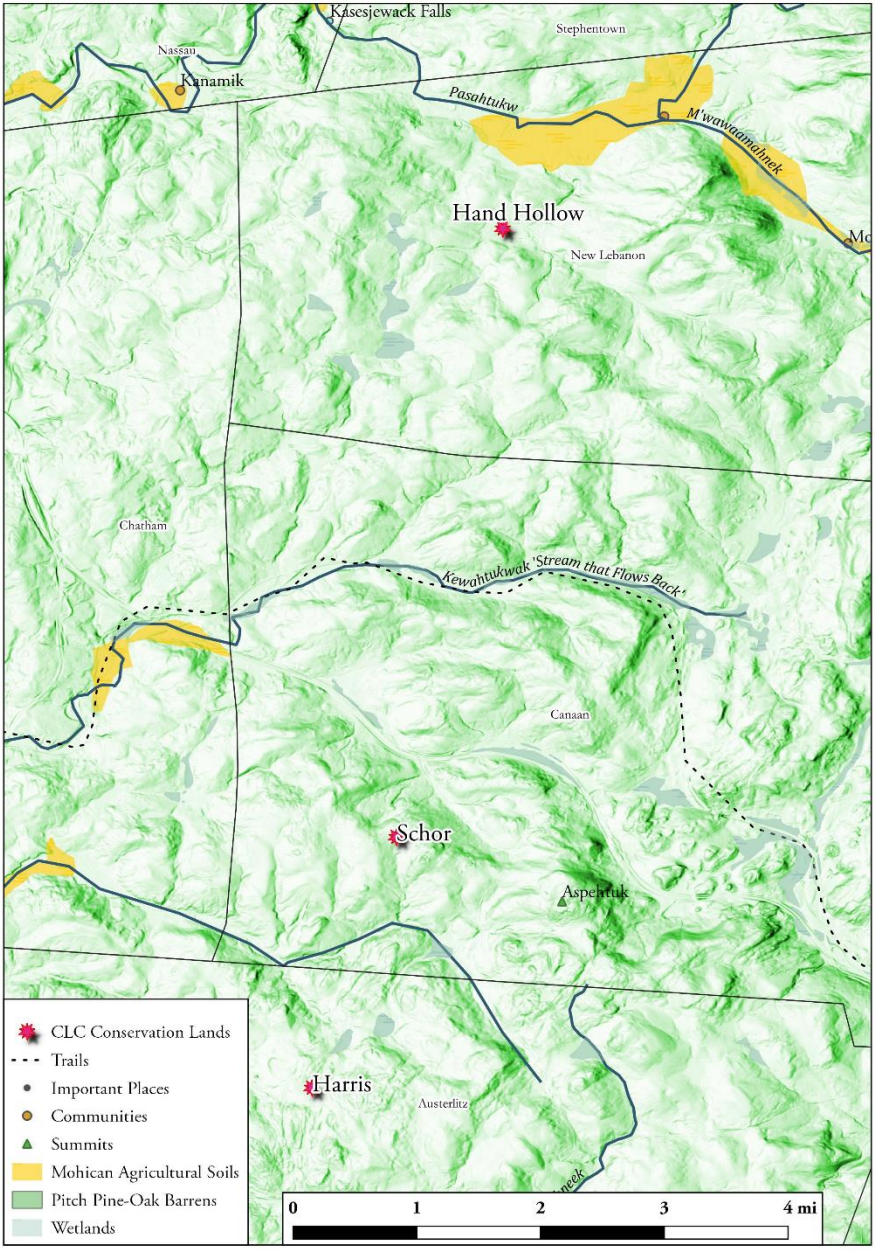
Mohican leader Rev. Jeremiah Slingerland visiting the Indian Burying Ground in Stockbridge, MA from the current reservation in Wisconsin (1879)

"An Indian at the burial place of his fathers in Stockbridge" by McFarland

New York Public Library, Stephen A. Schwarzman Building Photography Collection, Miriam and Ira D. Wallach Division of Art, Prints and Photographs, G90F285_014ZF

Chapter 2: The Northeast Interior

Gateway to Wahsatunik



The uplands of northeastern Columbia County were once a gateway to important late winter hunting grounds in the northern Taconic and Green Mountains. Trails crisscrossed the landscape, leading from the Hudson River eastward to the Housatonic Valley or northeastward to the Hoosic Valley. The headwaters of many streams are found in the area, a meeting place of the Housatonic watershed and that of the Hudson River. These deep interior regions, with shorter growing seasons and generally thin, rocky soils, seem to have been reserved for winter hunting expeditions. These mixed hunting camps would likely have included families from communities downstream in both directions, providing an opportunity for Mohican groups from the Hudson and Housatonic watersheds to intermingle.

The head of one particularly important tributary of the Housatonic River is found here: the Green River. Known to the Mohicans as the *Wāapahnek Seepoos* or 'White/Bright River,' this fast-moving, clear and cold stream flows southeastward for twenty miles before emptying into the Housatonic River at a place once called *Skahtukok*, 'Where the River Branches.' The Mohican name of the river may refer to quartzite and mica schist found in and around the stream. The Mohican community of *Skahtukok* farmed the floodplains around modern Sheffield and Great Barrington. Some of the families there would have likely maintained the Green River watershed as their hunting territory.

In the first half of the 18th century, the Van Rensselaer family claimed much of the upper Kinderhook Creek watershed and the upper Green River watershed as within their Lower Manor. As noted in Chapter 1, the fraudulent claim was hotly contested by the nearby Mohican descendants of the original sellers. They rightfully believed that the boundaries had been grossly exaggerated by the Van Rensselaers. Simultaneously, many of the wealthy family's tenants were looking for a way to buy their own land from the indigenous proprietors, and the nearby colony of Massachusetts Bay was looking for a way to expand its borders westward. This perfect storm of factors led to a number of scenarios in the 1750s in which organized groups of small purchasers – many of them tenants – attempted to take control of the area around the Taconic Mountains by doing so under the purported

jurisdiction of Massachusetts.* Doing so would free the tenants from the control of the Van Rensselaers.[55]

In 1756, local Mohicans – still frustrated by exaggerated Van Rensselaer claims to some of their lands – were willing to "resell" the region of the upper Green River and Kinderhook watersheds. In one deed alone, dozens of small purchasers are represented for a tract of land in the Austerlitz area just a couple of miles eastward of Harris.[56] One of the two Mohican proprietors who parted with these lands happens to have been one of the most highly-respected Mohican leaders of the 18th century: Pophnehaunauwack, also known as John Konkapot. Much has been written about Konkapot over the past two centuries. He was a driving force in the development of Stockbridge: a Puritan mission community that was shaped by the Mohican Nation government's aim to bring the Mohican People together and better adapt them to New England/Euro-American society. He was a successful diplomat and an untiring advocate for his people.

John Konkapot signed documents with what appears to be a drawing of a bird's foot. Like their Iroquoian Mohawk and New England Algonquian neighbors, Mohican signatories tended to sign deeds, treaties, and other documents with symbols indicating their totem or clan membership.† Like their neighbors, the Mohicans reckoned their descent matrillineally, so one's clan was inherited from one's mother.[57] The Mohican Nation proper was originally comprised of members of the Bear, Wolf, and Turtle Clans.[58] Thus, Konkapot's membership in a Turkey Phratry clan indicates that he was likely from the satellite Mohican-speaking communities of the Roeliff Jansen Kill or in northwestern Connecticut. Mohican speakers from the Roeliff Jansen Kill and northwestern Connecticut seem to have largely been members of the *Nahamaw* or Turkey Phratry and were closely related to the Catskill Indians. Alternatively, he may have inherited his clan from one of the Turkey Clan families found among the Wappinger Indians of nearby Dutchess County.

Early records indicate that the Mohicans were mostly matrilocal: men married outside of their clan-dominated community, changing residences to that of their wife. In contrast, women would rarely have moved to another community permanently, with the possible exception of the wives of chief

* The border between New York and Massachussetts was not resolved until after the American Revolution.

† Sometimes, these signatures are clear depictions of the totem, but more often than not, they are difficult to interpret today.

sachems. As a result, John Konkapot was likely born and raised near to the Hudson River.[59] Since the Mohicans had a system of bilateral inheritance of land (although one's mother's territory was most important), Konkapot's claims to upper Housatonic watershed indicate that his father may have been a Housatonic Mohican. Alternatively, the merging of closely-related Mohican Nation groups at the Stockbridge Mission in this era – including Mohicans, Housatonics, Schaghticokes (from both of the two completely unrelated 18th century New England refugee communities on the Hoosic and Housatonic, respectively) and Wappingers – had created a new Stockbridge Mohican Nation, and members (particularly leaders) may have all had a stake in regional land sales, regardless of where they were originally from.

Signatures on a 1743 petition include those of John Pophnehonuwoh and Peter Pophquunnaupeet, both of whom sold a tract including much of the Green River. All three signatures are typical Turkey Phratry signatures; that of Peter Pophquunnaupeet may represent the Heath Hen Clan.

Another famous contemporaneous Mohican leader – equally as instrumental in the founding of the Stockbridge mission – was the head of the community of *Skahtukok* at the mouth of the Green River on the Housatonic. This leader's name was Sonkewenaukheek, better known today by his alias or title, Umpachene. Sonkewenaukheek likely received his title Umpachene by kin relationship to an earlier Norwottuck sachem named Umpanchela (who was perhaps his father or grandfather), making the name a Mohican-pronounced version of a Norwottuck name that may have meant 'Meadowlark' (a potential cognate was recorded in a Munsee dialect [see Speck, 1946]).* In

* The Norwottucks lived in the Connecticut Valley where Northampton, MA is today.

one document, a truly Mohican-language variation of Umpachene was recorded: "Ampawekine called Sankenakeke."* This document also noted that Umpachene/Ampawekine was the chief sachem of the Mohican Nation in the late 1730s.[60] He was also a member of the Turkey Clan, as is evident in his signatures.[61]

Harris

Hemlock Forest

The Harris is dominated by a beautiful forest of eastern hemlocks (*Tsuga canadensis*). The eastern hemlock, called *stāhkwa* or 'conifer,' has high spiritual value for the Mohicans and all Lenape People. The tree's evergreen leaves are a testament to its powerful medicine, and the tree is linked with ancient stories about the spiritually important Pleiades constellation. The hemlock was an especially important tree in late winter, the season when hunting parties would have most likely visited this region. Winter hunting parties seeking deer, moose, bear and beaver used the bark of hemlocks as shingles for lean-tos. The branches were used to make a deep, springy, insulated mattresses on the snow below. The leaves were also steeped for a warming winter tea. This medicine can also be used as a steam treatment for rheumatism and for purification before hunting. The inner bark has similar medicinal value, and can be poulticed on wounds; it is also traditionally decocted to make a rich, mahogany-colored dye for deerskins and wooden objects.

The eastern hemlock once grew in immense, dark forests found especially in interior valleys and ravines. Such forests often contain wetland pockets where medicinal plants such a goldthread (*Coptis groenlandica*) are found. Goldthread is still highly valued by the Mohican People today in their community in Wisconsin. The bright-yellow bitter rhizomes are used for sore mouths and mouth infections, teething, and for eye infections. They also once provided a source of bright yellow dye for porcupine quill embroidery, rush mats and baskets. Pockets of sphagnum moss are also found in such places; clean, dried sphagnum moss was used as an extremely absorbent sponge for cleaning and as diapers for babies strapped to cradleboards.

* The Mohican language version is without the typical Southern New England Algonquian palatalization of Proto-Eastern Algonquian *k.

Animals once found in the mesic forests of this interior region included the marten or *wãapeekw* 'white face,' which was highly valued for its soft pelt. This beautiful large weasel species may have also been a Mohican Clan, as it is sometimes depicted in Mohican signatures from the upper Hudson River.[62] Another mammal once found in these snowy interior forests is the varying or snowshoe hare, which may no longer exist in Columbia County, and was last known in numbers in the mountains around Austerlitz in the 1960s.[63] Called *wãapãatkwaahs*, this beautiful large hare changes color with the seasons, blending in with the winter snow. The Mohican People avoided (and many still avoid) eating this species and rabbits in general, as they are connected to one of the transformer deities who created the earth. Consuming them is believed to cause venereal disease.[64] Finally, the farther one travels into the northeastern interior, the higher the likelihood of encountering the moose or *moos*, which seems to be slowly returning to this part of Columbia County.

A pair of quilled *mahksunan* or moccasins that may have belonged to early 18th century Mohican leader Eetoowakaam, ca. 1710. Eetoowakaam's daughter married sachem Umpachene. The yellow quills may have been dyed with goldthread root.

British Musem Collections, Am1921,1014.84.a-b

Descriptions of hemlock-dominated forests and ravines in the Hudson Valley (and throughout the Northeast) before the deer population explosion of the mid-20th century frequently mention a diverse understory that included species such as Canada yew (*Taxus canadensis*), hobblebush (*Viburnum lantanoides*), American honeysuckle (*Lonicera canadensis*), and other shrubs as well as herbaceous species including bluebead lily (*Clintonia borealis*), Indian cucumber root (*Medeola virginiana*) and various trilliums and ferns.[65] Most of these species are northern and prefer cool, moist conditions and they were and are used as important medicines by the Mohicans and other Northeastern Native peoples. Sadly, the understory of many hemlock forests is nearly devoid of a shrub and herbaceous layer today.

Another species found here and throughout Mohican Country is the white pine (*Pinus strobus*), which is also abundant on the reservation that the Mohicans call home today in Wisconsin. There is a generic Mohican word

for pine, *koowaaw*, but there was also likely once a specific word for the white pine, such as the Munsee word *wchupkwahkw*, 'clustered needles tree.' Like most Mohican plant vocabulary, the name for white pine seems lost with time. Decayed wood of white pines was once ground into a fine, dark red powder that was used for babies because of its healing properties. The sap was and is also used for treating infections and making glue, and the trunks were another source of logs for dugout canoes. The tree's height (the tallest of any native Northeastern tree species) gives the white pine prominence in the mythos of Northeastern native peoples, and just like bald eagles today, Thunder Beings seem to show a preference for nesting in these majestic conifers.

Hand Hollow

Forest & Wetland

The mature, mesic forests and wetlands of Hand Hollow make for a good place to picture the once less disturbed northern hardwood forests that dominated swathes of the interior. And yet, even this site is a mere mile away from the six hundred acres of fertile silt loam soils at the confluence of Kinderhook and Wyomannock Creeks. Colonial records indicate that this area was called Mogonghkamigh; this may derive from *M'xakāameekw* 'Big Grounds' and indicates yet another important Mohican settlement along Kinderhook Creek. The signatures of the sellers in the 1741 deed for this area, which came to be called the Mawighanunk (i.e., *Māwiihnak* 'Confluence') Patent, may possibly be Turtle Clan.[66]

A place of great cultural importance is located six miles to the east of Hand Hollow, near the headwaters of the Wyomannock: Lebanon Springs.[*] The spring here is one of the only thermal springs in the Northeast. The water has a stable temperature year round, and is believed to have powerful healing properties. The site is still visited by members of the Stockbridge Mohican Nation, and the surrounding woods are said to be full of rare medicinal plant species. Many herbaceous species found on the forest floor, especially spring

[*] Wyomannock may derive from *M'xwawaamahnek*, or 'Big Flats River,' referring to the fertile flats between New Lebanon and Lebanon Springs. The Mohican place name *M'xwawaamik* and the Unami cognate, *Xweyomink*, are the origin of the place name Wyoming (on the Susquehanna River in PA; subsequently, the state).

ephemerals, are highly regarded as medicines that must be used with great caution. These include wild ginger (*Asarum canadense*), bloodroot (*Sanguinaria canadensis*), red trillium (*Trillium erectum*), blue cohosh (*Caulophyllum giganteum*), and mayapple (*Podophyllum peltatum*).

Another understory plant that is valued as a medicine is the wild geranium (*Geranium maculatum*), whose pink spring flowers are commonly found in damp, shady places with rich soil. The roots are used by Northeastern native peoples to treat diarrhea. Another plant, found in similar situations, is the odd jack-in-the-pulpit or Indian turnip (*Arisaema triphyllum*). Its relatively large corm was once a source of food for Northeastern native peoples, including the Mohicans. Quantities of the corms would be sliced and dry-baked in pits or on hot rock platforms for one to three days. This was necessary to destroy the calcium oxalate that otherwise renders them inedible. The starch from these processed corms was then used for thickening soups. Another spring ephemeral that is both food and medicine is the wild leek or ramp plant (*Allium tricoccum*), which can be found in places with damp, rich soil at Hand Hollow and similar places in Columbia County, sometimes in large patches. This is frequently gathered and eaten today by the Mohican People on their reservation in Wisconsin.

As a group, allium species are called *weenoos*. Traditionally, the wild onion and wild leek bulbs are cooked by Northeastern native people with eggs or eaten raw with fish. As a medicine, the bulbs of allium species are boiled into a strong tea used to treat a variety of ailments, especially colds and those of the lungs. Wild onions and leeks are also said to purify the blood when consumed. Consuming spring blood purifying greens and tonics is an annual tradition in the displaced Hudson Valley Lenape communities today, particularly those in Ontario and Oklahoma. Even the delicate leaves of the Virginia waterleaf (*Hydrophyllum virginianum*) are sought for, cooked and eaten in the springtime for their healthful properties; they are known as 'woods greens' today on the Stockbridge-Munsee Mohican Reservation.

Hand Hollow has a healthy, ever-changing beaver population. Interior regions would have been highly influenced by beavers in precolonial days. As in similar interior valleys in the Catskill Mountains, beavers would have created an ever-changing habitat mosaic alternating between open water,

marsh, meadow, swamp and forest as beaver colonies came and left. It is likely that 18th century regional descriptions of valleys dominated by white pines are describing former beaver wetlands. Moose thrive in this sort of habitat, and it is entirely possible that there were resident moose in the area four centuries ago. Nearby Mohican communities went on organized moose and beaver hunts in the interior in the late winter every year, using deadfall traps for furbearers and spearing beavers in their lodges or through holes in the ice. The beaver provided rich red meat and soft, warm waterproof pelts that were sewn into matchcoats, a traditional blanket garment worn over the shoulders and belted at the waist. Fatty beaver tail was also a traditional delicacy at this time of year, as was moose lip. Beavers would have also been a major prey source for local Eastern wolves before their extirpation.

A characteristic Mohican *amhãan* or spoon of ash wood. This particular spoon likely dates to some point before 1680. The beaver effigy on this spoon (and other spoons) represents peace and plenty (as does the beaver tail symbol – a common stamped decoration on bark containers and baskets). The second image is the back of handle.

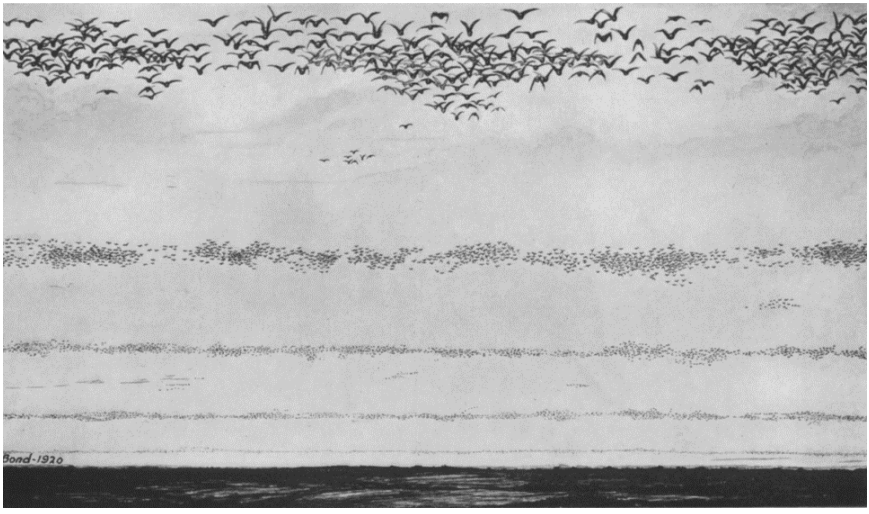
Steven Michaan Collection of North American Tribal Art

Hand Hollow is part of a larger network of conserved lands in the uplands of the northeastern corner of Columbia County. As has been noted, much of the forest here is representative of mesic, less disturbed forests that were once common in the interior, and eastern hemlock, American beech, and yellow birch are common. Yellow birch is still valued as a medicine by the Mohican People today. Called *wiinskw*, the twigs are boiled into a beverage tea with a delicious wintergreen flavor. Like black birch, this is a common addition to spring blood purifying tonics. The wet, green cambium layer was also scraped in the spring time and eaten raw for its sweetness, and the hard wood used on occasion to make mortars for pounding corn.

It would be remiss to not note the former extreme importance of the American beech tree in interior mesic forest ecosystems. As noted previously, the American beech once dominated great swathes of the interior throughout Eastern North America.[67] Before the trees were cleared in the 19th century for agriculture or decimated by beech bark disease over the last century, they produced large reliable crops of small beechnuts. These masts fed squirrels,

black bears, and many other species. Most notable of these species was the passenger pigeon, a beautiful, graceful bird with a ravenous appetite. Passenger pigeons relied on beechnuts for their survival, and congregated (seasonally) in the largest flocks of any species on earth before being hunted to extinction at the end of the 19th century.

The passenger pigeon is called *pāwaham* in the Mohican language. In early springtime (often before the snow had completely melted), vast flocks arrived at their nesting grounds in the mountains, which were dominated by beech trees. The birds relied on the huge mast of sprouting beechnuts that littered the forest floor during the spring breeding season. Trees – especially hemlocks – supported their flimsy nests, which were sometimes so abundant that branches would break under the great weight (and occasionally, entire trees collapse). In some nesting grounds, by the end of the season the forest floor might have inches (or even a foot) of guano. When combined with the sheer number of dead pigeons and squabs, one can only imagine the input of nitrogen and other nutrients to these otherwise little-disturbed mesic forest ecosystems, in addition to the canopy gaps created by breaking branches and trees.



Eyewitness sketch of migrating flocks of passenger pigeons, which might take many hours to pass.

Frank Bond, "The Later Flights of the Passenger Pigeon" in The Auk, Vol. 38, No. 4 (Oct., 1921), 523-527.

As was custom among all of their neighbors, it is extremely likely that Mohican families camped seasonally on the fringes of the nesting grounds to harvest squabs. The squabs were knocked out of their nests at night with long poles, a custom that was remembered by Mohican descendants on the Six Nations Reserve well into the 1930s. Those birds not eaten fresh were simply gutted and smoke-dried or were boiled to render oil; a single family might make several gallons of pigeon squab oil, which would serve in cooking for the rest of the year. These communal pigeon hunts would have been highly regulated and restricted to a short period – just as they were by neighboring native peoples – in order to avoid offending the pigeons, which might not otherwise return. Sadly, greed led to the total destruction of this species by the end of the 19th century, but the Doove Kill in Gallatin might be a memory in the Hudson Valley Dutch language for former passenger pigeon nesting colonies.*

Schor

Upland Oak Forest

The upland oak-hickory forest of Schor once dominated (and still dominates) the thin-soiled hills and mountains of central and eastern Columbia County. These useful, mast-bearing woodlands, which would have periodically endured low-intensity burns, were once also full of American chestnut trees (*Castanea dentata*), which is still abundant in some locations as stump sprouts. Formerly, the hills of Canaan and likely New Lebanon were known for an abundance of American chestnut trees (Vispo, 2014: 41-42). A hill to the northeast, at the border of New Lebanon and Canaan, is noted in the 1741 deed for the nearby Mawighanunk Patent as *Wāapeem Wahchoo*, or Chestnut Mountain.[68] The chestnut was not only a source of food: the easily-peeled smooth bark of these tall, straight trunked trees was once the preferred source of shingles for covering *wiikwahman* or houses. The wooden frames of these houses were made almost exclusively out of the extremely strong, flexible trunks of young hickory trees (*Carya* spp.), which would have grown in thickets in many fallow cornfields.[69] Hickory trunks had the added benefit

* Based on the location of a placename on a copy of the 1714 map of Livingston Manor by surveyor John Beatty, the Doove Kill seems to have been called *Paatahnusuk* or Waterfall [River] in the Mohican language, a name which accurately describes this stream.

of providing lashing material from the easily-peelable bark which could be used for constructing the frames.

Unlike chestnuts, the historic record and archaeological record seem to indicate that hickory nuts – especially those from shagbark (*C. ovata*) and pignut (*C. glabra*) – were a major source of food. In contrast, chestnuts seem to have been more of a supplementary food source, perhaps because the trees were not found as abundantly as hickories and/or because the nuts are much less nutritionally valuable, having half the calories, half the protein and 1/10th of the fat found in black and white walnuts and in hickory nuts.[70] Chestnuts and hickory nuts would have been gathered as they ripened in early autumn. Those chestnuts that were not eaten immediately were dried for winter use (and could be pounded into a sweet flour used for mush and bread); hickory nuts were instead stored in their shells in the ubiquitous storage pits found in and around every community, and when needed, pounded into a paste – shells and all – that was then simmered in water. This process separates the shells (which sink) from the nutmeats, which mostly dissolve into the hot water and provide a delicious, thick hickory milk used for cooking.[*] Oil can also be skimmed off of the cooled hickory milk in quantity and bottled in gourd or bladder bottles to use for cooking later in the year.

Acorns, particularly those of white oaks, were also collected in season; these would have been shelled before processing in hot ash (lye) water to remove their tannins, which is still done by a few Hudson Valley indigenous descendant families today in the Delaware Tribe of Bartlesville, Oklahoma. To crack the acorns – a laborious process – palm-sized extremely-hard cobbles, such as those of quartz sandstone, were used. These handheld tools, sometimes called nutting stones or pitted hammerstones, are found in abundance throughout the region and are recognizable by the central pits found on either side from cracking thousands of acorns and nuts.

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[*] The name hickory itself is derived from a Virginia Algonquian language word specifically for hickory nut milk. The name pecan – another species of hickory – is also of Algonquian language origin, and in the Mohican language, is used for the butternut (*Juglans cinerea*) as *pahkan*.

Pitted hammerstones for cracking acorns, chestnuts and hickory nuts. Found in Greenport Center.

NMAI 12/488

The Mohican names for many hills and summits in the Central Hills and Taghkanic Mountains can be found in land deeds, maps and other colonial records, but unfortunately, can rarely be identified with any actual contemporary summit with any degree of accuracy. One name that may refer to the entire high elevation range of the Schor was recorded as Aspetuch, which is likely from *Uspahtuk*, meaning something like 'Suddenly Rising Mountain.'[71] Based on the 1758 deed, the name may be for the entire range, which reaches its high point at Shaker Mountain to the immediate southeast of Schor. This summit is important, as it contains a headwater stream of the Green River (Housatonic Watershed) as well as headwater streams of multiple tributaries of Kinderhook Creek.

Sometimes, Mohican place names remained in use among local settlers until well into the 19th or 20th centuries without having been recorded when the native inhabitants were still in their ancestral lands. A good example that remained in use into the 19th century can be found in the southern portion of the Central Hills, far to the south in Gallatin: the name "Mattashuck" likely derives from *Matachook*, meaning 'at the place of the bad hills' (i.e., rocky and thin soiled), and is used for Signal Rock today.[72]

High points with views have cultural and spiritual importance for Eastern Woodlands peoples like the Mohicans, and offer a place where one can get closer to beings of the Sky World. They also offer a convenient way to better

understand the surrounding topography, and subsequently, trails were often routed to go along ridges (rather than in lowlands). Views may have been more extensive than they are today, as periodic prescribed burns would have soon made summits and ridgetops devoid of large trees, and over the region as a whole are described as "barren" in 18th century records, hinting that previous generations of wildfires had denuded summits.

Across the Hudson River in Greene County, the low mountain Round Top – which can be seen from many vantage points in Columbia County – was a largely barren rocky outcrop, as pictured in this portion of a 19th century painting. 20th century fire suppression allowed it to reforest. (Round Top is the dark hill below the Catskill Mountains in the painting; today, it is completely covered in trees). This would have also been true of many of the thin-soiled, rocky summits and ridges found in Columbia County.

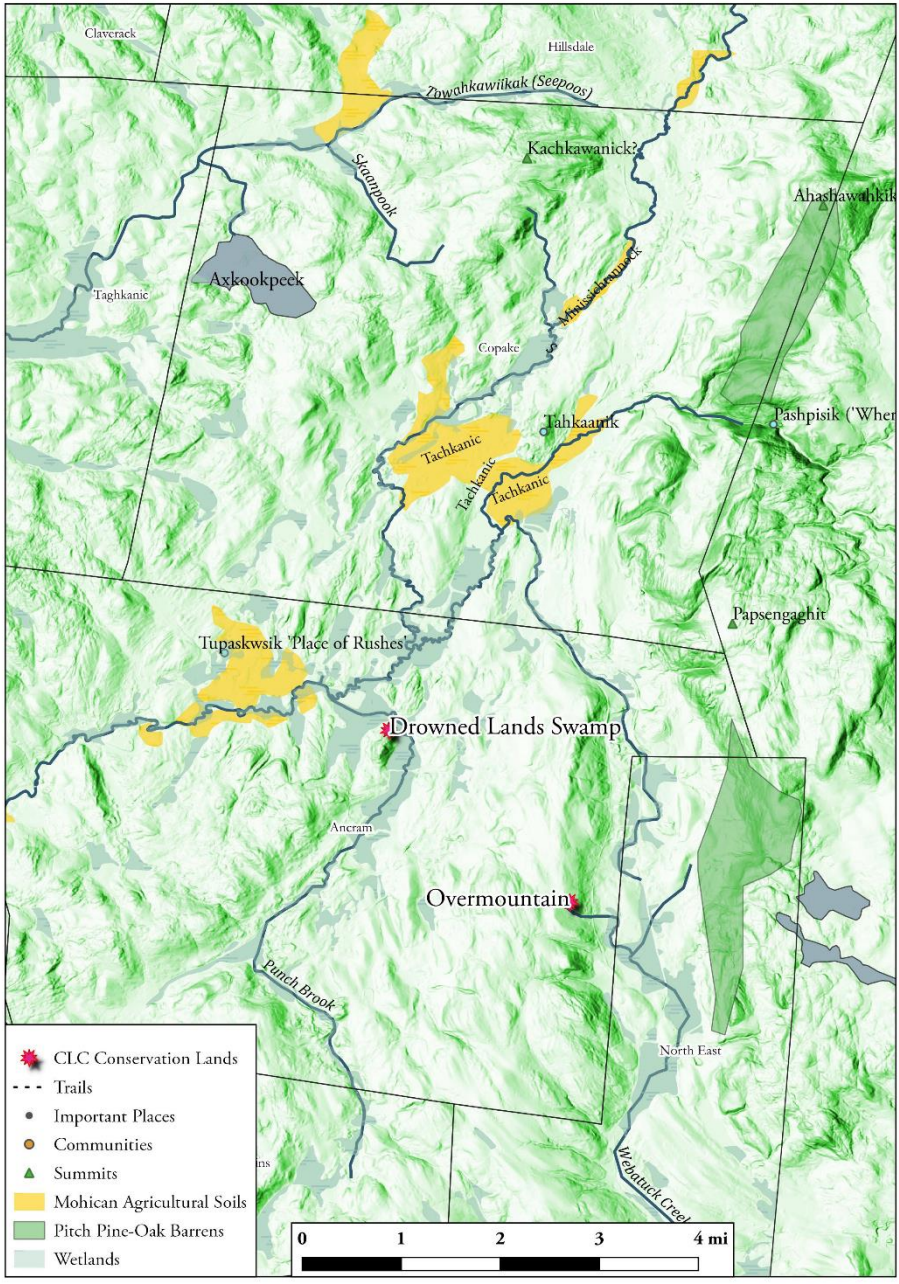
From *Charles Herbert Moore, 'The Catskill Mountains' (1872) Fogg Museum, 1956.170*

The Schor also contains a number of vernal pools. Before much of the Columbia County landscape became pasture or was plowed over in the 18th-19th centuries, uneven terrain and vernal pools would have dotted the whole in a way that is difficult to imagine today. These supported vast populations of invertebrates and amphibians. Erosion, compaction, and the loss of the detritus/duff layer due to a century or more of pasture has "flattened" and

hardened huge swathes of land in the region, and subsequently, untold numbers of vernal pools disappeared.

With the disappearance of so many vernal pools and wetlands, amphibian populations today are certainly at greatly reduced levels to what they once were a mere three centuries ago. One can only imagine the cacophony of song by wood frogs and other species in early springtime. In fact, the second earliest spring month is universally called the Frog Month in the calendar of the different Lenape dialects; it is likely that the local Mohican people also called this period – before the arrival of shad, herring, and other anadromous fish – the Frog Moon. Sadly, there are no records today of the traditional Mohican calendar, which seems to have been forgotten over the course of the 19th century.[73]

Chapter 3: The Harlem Valley and Taconic Region



The region of Columbia County that is known as the Harlem Valley today is characterized by vast wetlands surrounded by steep hills and mountains, most notably the Taconic Mountains that rise suddenly to the east.* The complex geology of the region creates a mosaic of different habitats, including forests rich in calcium, huge wetlands, and grassy balds. This region's location between the Mohican-speaking communities of the Hudson River and Housatonic River watersheds also made it a meeting place between these groups, and the fertile silt-loam soils found near the headwaters of the Roeliff-Jansen Kill (and subsequently, the intense cultivation for maize and other traditional crops) resulted in fallow fields and swathes of grassland habitat in select locations.

By far, the largest Mohican community in the region was that called Taghkanic. The name is used today for a major mountain range, for a large tributary of the Stockport Creek watershed, and for many other locations found in and around the wider region. But originally, Taghkanic described a Mohican settlement between Bash Bish Brook – which was formerly known as Taghcanic Creek – and the Roeliff-Jansen Kill. This settlement encompassed over 1300 acres of fertile arable bottomland soils, and was closely connected to Mohican and Catskill Indian communities downstream on the Roeliff Jansen Kill between what are now Clermont and Livingston.† The Roeliff Jansen Kill was called *Sunkehnak*, perhaps 'Stony River.' Three miles northeastward and upstream of the Taghkanic community, Bash Bish Brook descends from the Taghkanic Mountains as the dramatic Bash Bish Falls, a name that likely derives from the Mohican place name *Pāspisik* 'Where the Water Boils Over.'

Only three miles to the northwest is the lake once known as *Xkookpeek* 'Snake Waters' and called Copake today. (The nearby Taghkanic Mountains are still

* The Harlem Valley was named after the creation of the New York & Harlem Railroad in the mid 19th century. The name describes the long, marshy valley that stretches from Brewster in the south to Hillsdale in the north.

† There do not seem to be any early records for the etymology of the place name Taghkanic. Recent interpretations are not satisfactory. They range from the early 20th century creation *Takonuk* 'Forest Place' (Ruttenber, 1906: 52), which was derived from a word that is not known in the Mohican language, to the more recent *Mtâxnik* 'Where there is Firewood.' This last interpretation is not possible: all early records indicate a penultimate stress (just as it is pronounced today).

a refuge for some of the last populations of *sususōwak* or timber rattlesnakes in Columbia County). Copake connected the Taghkanic Mohican community to the major indigenous agricultural areas where Claverack is today. Ten miles downstream on the Roe-Jan – at its confluence with Shekomeko Creek in Dutchess County – was the major colonial-era Mohican refuge known as Shekomeko or *Chekaameekok* 'Big Grounds.' This community became the center of a 1740s Moravian Mission to regional native peoples. Ultimately, most of the converted Mohicans of Shekomeko were forced west with the missionaries and other converts; their descendants live today on the Moraviantown Reserve in Ontario. A few families moved to the upper Susquehanna River towns in the 1750s, and today have descendants on the Six Nations Reserve in Ontario.

The vast chain of wetlands that makes the Harlem Valley so unique would have been a major source of food, medicine, fibers and thatch for the Mohican communities nearby. Columbia Land Conservancy's Drowned Lands Swamp is an excellent, fairly healthy example of the still extensive – and formerly even larger – wetlands that once dominated this region.

Drowned Lands Swamp

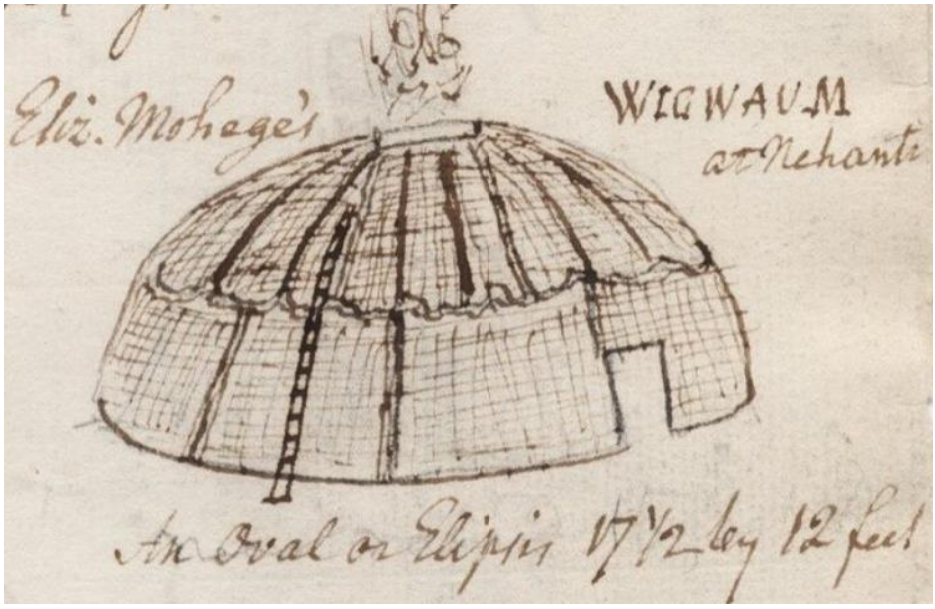
Unique Wetlands

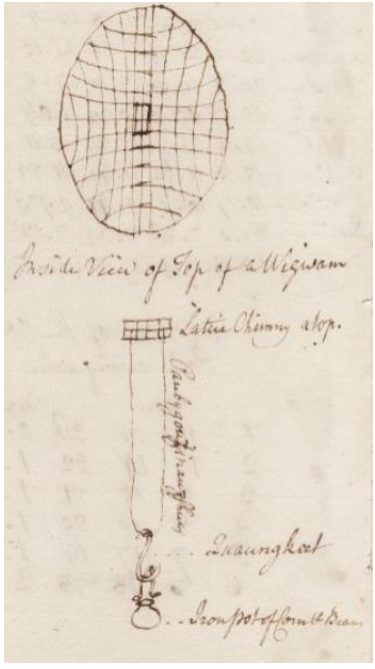
The calcareous wetlands of Drowned Lands Swamp are close to the heart of the largest segment of a chain of wetlands extending along Punch Brook, a tributary of the Roeliff Jansen Kill. Along with the forest found on the limestone knob of Old Croken, the wetlands of this are rich in rare species. Perhaps the only direct record attesting to Mohican management of the land in the vicinity is found in the 1714 journal of Robert Livingston, who traveled through the area while exploring the boundaries of Livingston Manor. He noted that there was an important wetland nearby where the Mohican women of Taghkanic went to harvest rushes for twining into mats, and recorded the name as Tapasksit, almost certainly from *Tupaskwsiik*, 'Place of Twining Grass.'[74]

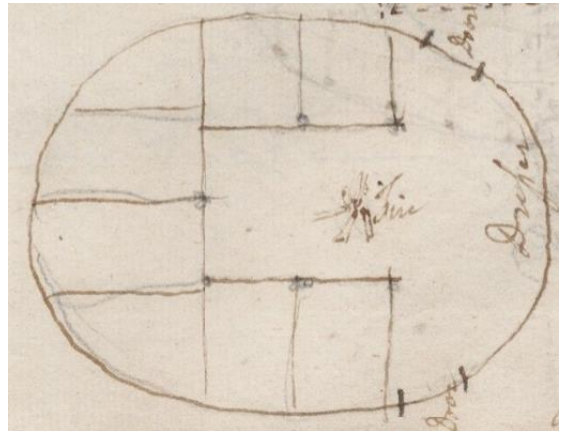
This name may be one of the only records of an otherwise unattested Mohican word for a species of bulrush or similar wetland plant with strong

stems used for twining mats and bags. A similar name for a wetland-rich area found near Kinderhook contains the same word: Taphaeskotassik i.e. *Tupaskootasik* 'Meadow with Abundant Twining Grass.' Another wetland on a small peninsula south of Catskill on the Hudson River may also contain the word: Peskwanachqua could derive from *Tupaskwanaka* 'Twining Grass Point.' And finally, an area rich in wetlands in Ulster County contains the place name Tabasco/Tobasco, which may derive from an Esopus Indian dialect cognate of the same word. The stems of bulrushes are traditionally twined into mats and bags by Eastern Woodlands peoples by twisting (twining) them over each other (or using cordage to do so). The rushes may be dyed in advance, resulting in objects with beautiful stripes and patterns.

Other wetland plants, notably the stems of cattails (*Typha* spp.), were used to make less elaborate but thicker waterproof mats that were used to cover smaller traditional *wikwahman* or wigwams. The lightweight cattail mats could be easily removed and rolled up for transportation if the residents wished to temporarily move to another location during hunting or fishing seasons, leaving the pole frame behind for use another time. An excellent eyewitness illustration of the exterior and interior of a cattail mat wigwam was created by Ezra Stiles in the 18th century among close neighbors of the Mohican people in southern New England.







Views of wigwam with cattail mats, including interior plan with benches/beds around fireplace.

From Ezra Stiles Papers, Itineraries I, 1761

Yale University's Beinecke Rare Book and Manuscript Library

One tree that is found in the swamps of the Drowned Lands is the black ash (*Fraxinus nigra*), a species of high utilitarian value among Northeastern native peoples to this day. The emerald ash borer has led to the recent widespread destruction of large black ash trees throughout most of their range. Over the course of the 18th century, making and selling elaborate painted splint baskets became a staple in the Hudson Valley indigenous economy, and basket sales would support many Mohican families well into the 19th century.* The preferred splints come from the black ash, although neighboring native peoples on the coast would often use white oak splints. Producing the splints from a black ash log takes much practice; the log is pounded to release the growth rings, which are then trimmed to size. There are dozens, if not hundreds, of Mohican splint baskets in private and public collections today, some nearly three centuries old and many from Columbia County.

Centuries-old Mohican splint basket with lid from Columbia County; painted splints and designs have faded, but would have once been vibrantly colorful.

NMAI, 14/6911

* Some excellent research on Mohican basketry designs was recently conducted by young Mohican tribal member Coral Cook, whose presentation can be viewed on Youtube as "Beauty of Mohican Basketry: Revealing Faded Designs with Digital Technology " (https://www.youtube.com/watch?v=LPlluEuYM9k)

Such splint baskets are often dyed or painted, or stamped with patterns (stamps might be carved out of a potato, or made with a curled piece of leather or out of wood or bone). A favorite, long lasting purple-black dye for painting and for stamps is produced by red and silver maples, which are often found in the same wetland forests as black ash. The twigs are simmered to produce the dye (which changes in darkness depending on what mordant is used). Northeastern native peoples use a wide variety of mordants, including the juice from various acidic fruits, ashes and certain mineral soils. Reddish dye was often made with the roots of the alder (*Alnus* spp.), another common tree of wetlands, and one that is highly valued as a source of medicine. The inner bark of the alder is used by the Mohican People to this day as a purifying, laxative medicine, and is also used to treat a wide variety of internal and external ailments.

Fauna of Drowned Lands (and other wetlands in the region) include the muskrat or *moskwas* – the name muskrat is one of many in English originating from Algonquian languages like Mohican. Muskrats were once a valued, seemingly-inexhaustible source of meat for Northeastern Algonquian peoples. Likewise, snapping turtles would have been caught and were valued as a source of meat (and still are a delicacy for some Northeastern native people), especially in the early springtime. In the spring and summer, a visitor to the Drowned Lands is likely to be serenaded by the red-winged blackbird or *chokwanee*, a bird whose onomatopoetic Mohican name is characteristic of many bird names in Algonquian languages. Other Mohican bird names that are onomatopoetic include that of the American bittern, a wetland bird species whose characteristic call rings out in the night of cattail marshes, *pokham*! And the Canada goose, once found only during spring/autumn migration and a source of meat during that time, is known (among other names) as *kahāks*. (Resident Canada geese are a very modern phenomenon).

Much like the nearby Mohican community of Taghkanic, Drowned Lands Swamp includes a limestone hill surrounded by wetlands: Old Croken. The forest on Old Croken is an interesting mosaic of oak-hickory trees with limestone woodland. The calcareous soils on parts of the hill support a diversity of uncommon herbaceous species, ferns and shrubs many of which are highly valued as medicines by the Mohicans and other Northeastern native peoples.

Overmountain

Meadows and Oak-Hickory-Chestnut Forest

Overmountain is but two miles from another area of importance for the Mohican People: the lake region of northwestern Connecticut to the north of the Great Falls of the Housatonic.* These communities had close links with both Taghkanic and with the people of *Wnaxkwhtukook* ('River Head' or Stockbridge on the Housatonic River to the north). A good example of the intimate links of this area to the Mohicans of Taghkanic/the Harlem Valley can be seen in the land purchased by Robert Livingston in 1686, which included a spur into their lands in what is now Connecticut. The most important settlements of this region – *Wehtak* 'The House' and *Weexkwapakat* 'Encircled by Lakes' – lay along the upper reaches of what is today known as the Salmon Kill. The Salmon Kill, a tributary of the Housatonic, was likely the only place in Mohican country where Atlantic salmon could be speared during the early autumn spawning run; the Great Falls of the Housatonic would have prevented salmon from running further upstream to the Mohicans of the upper Housatonic Valley.† Sadly, no records (save the name) seem to exist to attest to a former Mohican salmon fishery on this creek.

Closer to Overmountain , the streams flow into Webatuck-Tenmile River, another tributary of the Housatonic River farther to the southeast. The mouth of the Webatuck-Tenmile River lies outside of Mohican Country and is in that of Quiripi-speaking communities of the lower Housatonic, but its upper reaches were actively managed by the nearby Mohican residents of Taghkanic and *Weexkwapakat*.‡ The hilly terrain of this area is largely dominated by oak-hickory forest, hinting at formerly intense use of the hills for hunting and the use of prescribed burns to manage these hunting grounds. Abundant acorn masts are still important for feeding resident wildlife, but as

* The Great Falls are located in Canaan, CT.

† It is likely that the Mohican name for salmon was a cognate to that used in the neighboring New England Algonquian languages, which translates as 'red fish,' but the name was never recorded.

‡ The name Webatuck may derive from *Wiipahtuk*, 'Arrow Mountain.'

was noted earlier, fed even more species that were driven to extirpation or extinction a mere two-three centuries ago, such as passenger pigeons. Periodic prescribed burns, which removed most of the leaf litter from the forest floor, made the acorns and other mast much easier to harvest by both humans and by wildlife, such as passenger pigeons.

In the autumn, great quantities of acorns are still consumed by the ruffed grouse, a resident of Overmountain that was once much more common in the rest of the Columbia County and the Hudson Valley. The ruffed grouse is called *pahpahko* in the Mohican and Munsee languages. This name describes the characteristic drumming of male grouse in the springtime, a noise that can be heard over great distances in the sunny woods and sadly, is rarely heard in most of the Hudson Valley today due to dramatic declines in recent decades. One 18th century missionary noted that the bird-like deity that produced storm winds was compared to a huge grouse flapping his wings, a supernatural being that was remembered into the 20th century among Lenape traditionalists in Oklahoma and likely the same being propitiated by the Abenaki Peoples today of Odanak and Penobscot.[75]

Acorns are also eaten by black bears, an animal with great spiritual significance for Northeastern native peoples and a major source of meat, oil, and warm skins for the winter. The huge amount of fat is rendered into bear grease or oil, a condiment and skin protectant still highly valued by all Northeastern native peoples that was once stored in large bladder containers and in bottle gourds. In fact, bear grease or oil is still the preferred medium for medicinal salves by the Mohican People today on the reservation in Wisconsin. The love of bears for acorns and wild fruits was so noted that the name for bear in some related Coastal Algonquian languages describes them as fruit or nut eaters.[76] The usual Mohican name for bear is *maxkw*, a word with ancient Proto-Algonquian roots lost in the mists of time. However, as in the neighboring Munsee language, Mohican probably once had over a dozen names for bears depending on the animal's age, sex, and life stage.

The shiny black pelts were most highly valued as bedding, and as robes were said to be worn as a symbol of joy by those in the afterlife alongside otter pelts.[77] For the Mohicans and other Lenape, the deer and the bear are considered to be the greatest of all animals, in close kinship with humans,

and subsequently must be propitiated and treated with great respect.[78] And along with deer, bears are believed to be the optimum choice as offerings in thanksgiving rituals for higher spiritual beings. In the past, bears were primarily hunted during a midwinter hunting season, when they were sought for in their dens. 18th century accounts note that wintering bears were most sought after in the rocky mountainous regions or in dark hemlock swamps. The rockiness that characterizes the hilly regions of this part of Columbia County offers many opportunities for bears to make winter dens. During the late autumn-early winter deer hunt, the trails and sign of bears were noted and remembered, but bears were not to be hunted until their own season after that for deer, as doing so would spoil the deer hunt.[79]

The beautiful meadows of Overmountain are likely not characteristic of what existed in such hilly country when the Mohican People were managing the landscape (as compared to oak-hickory-chestnut woodland and bald ridges created by frequent prescribed burns or more mesic, beech-hemlock communities in less managed areas), but the many native species still found in the meadows here can still tell us much about the lifestyle of local native people in era before colonization. One species in particular, wild bergamot or beebalm (*Monarda fistulosa*), is highly valued by the displaced Lenape communities today, who use the aerial parts of this highly fragrant plant in a tea for treating a variety of ailments. On the reservation in Wisconsin, the Mohican People even dry and smoke the hollow stems for treating respiratory issues today. Members of the Mohican Nation today call this plant Number Six, a name with origins lost in the mists of time (there are a few different stories that explain the name), but which may derive from an original Mohican language name for the plant such as *Nunāpasuskws* 'Indian Weed.'

Another common family of native flowers that are especially diverse in old fields is that of goldenrod. Goldenrod (*Solidago*) species are today typical of long-established hayfields that see little to no disturbance outside of mowing once or twice a year. They support a vast array of native pollinator species. Goldenrods are not generally differentiated from one another in Algonquian languages, which usually indiscriminately classify them as 'yellow flower.' Northeastern native peoples traditionally consume goldenrod tea as a general health tonic and for fevers, colds and diarrhea. The plants are also poulticed

on broken bones, wounds, snake bites, and used as a stream treatment for arthritic pains.

Another bright-yellow herbaceous species in many Columbia County fields is the non-native tansy (*Tanacetum vulgare*). Tansies have probably been cultivated in the Hudson Valley since early colonial times. In fact, their use over the centuries in Hudson Valley indigenous communities is reflective of the intercultural sharing of medicinal plant uses that occurred over two centuries of native people and settlers residing together as neighbors. Today, the bitter tea from the tansy is used for treating stomach ailments and irregular menstruation in displaced Hudson Valley native communities in Ontario. In the 19th century, prominent Stockbridge Mohican leader and physician *Wanāakan* ('The Dish'), better known today as John Peter Quinney, used tansy in one of his compound medicines.[80]

A portrait of *Wanāakan* or John Peter Quinney, a tireless advocate for his people and a leader who helped move the community to Wisconsin.

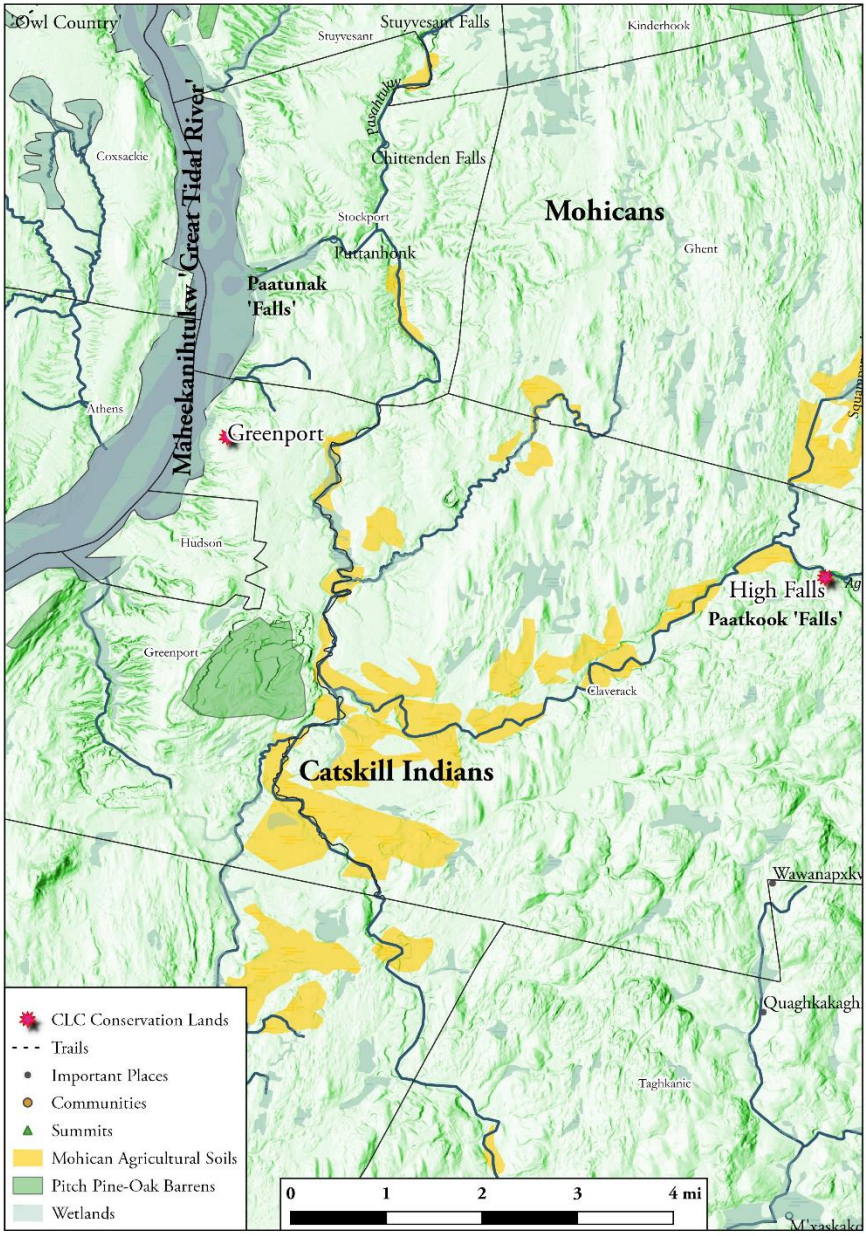
Amos C. Hamlin Jr. Wisconsin Historical Society, WHi-49

A woody species that is frequently found in old fields and at forest edges is the gray dogwood (*Cornus racemosa*). Gray dogwood often spreads rhizomatically into dense thickets, and the abundance of slender, straight gray stems can be carefully selected for excellent arrow shafts (making it once favored for this purpose by the Mohican People, as noted by Stockbridge Mohican leader and physician John Peter Quinney). The Mohican name for this common shrub is *wāawiipkwaakwek* or 'very gray stems.'[81] It was noted by Mohican leader Hendrick Aupaumut in the late 18th century that case-skinned otters were preferred for the quivers used to hold arrows, which was likely tied to the spiritual power otters are believed to hold as leaders of the aquatic world.

Two species that rely strongly on wide-open meadows for their survival are declining in the region as a whole today: the meadowlark and the horned lark. Both species are noted in 18th century records of the Northeast. The Mohican names for these birds do not seem to have survived, but two Munsee names – which may be similar to the unrecorded Mohican names – were recorded in the 1930s: *laawahkiihaakan* 'middle of the field' for horned lark, and *aapaachiimwiis* 'come back bird' for meadowlark.[82] Along with the nighthawk, upland sandpiper, and killdeer, the horned lark relies on very short grass or even barren fields as nesting habitat during its early nesting season. This was certainly a much more common habitat when local native people burned fallow fields in the autumn, and current brush hogging/haying practices that allow fields to grow back before winter seem to be at least partly responsible for the decline or loss of some of these species from the Hudson Valley landscape.

Chapter 4: Claverack and the Hudson River

Ancient Patkook

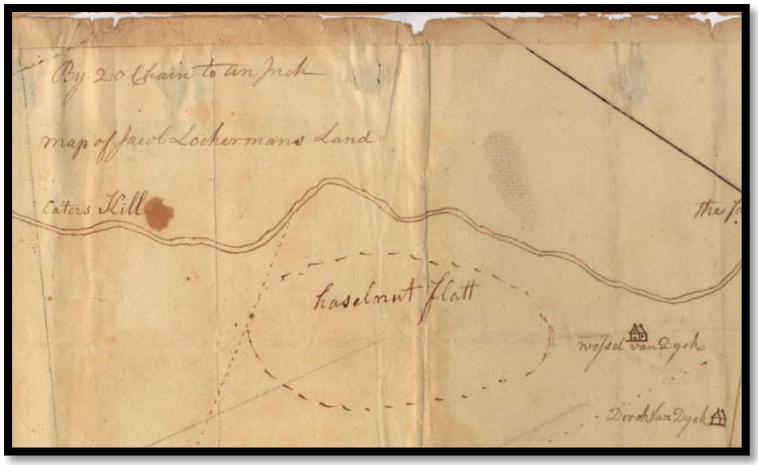


The evidently open landscape that was found in much of the western part of Columbia County (and to the southeast, in the Harlem Valley around the Mohican community of Taghkanic) is still the most open landscape of the county today.[83] This is in part due to the prime agricultural soils of these areas, keeping them in nearly continuous cultivation for likely well over a millennium. And today, just as in the precolonial period, the rest of the county was and still is largely forested. However, many species associated with open habitat that were noted as common in the wider region in the 17th and 18th centuries have declined or disappeared entirely. These include sandhill cranes (a noted temporary resident during migration until the 18th century), upland sandpipers, bobwhites, heath hens (extinct), nighthawks, whippoorwills, and the more common open field species of today, such as meadowlarks and bobolinks. This open landscape was remembered by local Euro-Americans into the early 19th century.

In 1814, author Horatio Gates Spafford interviewed locals in the Claverack area for a gazetteer he was writing. He found that the contemporaneous local timber shortage had old roots: in the past, the Claverack area had been "...extensive glades of level land... wooded only by scattered copses of [hawthorn] and a variety of similar wild fruit shrubbery, approaching very nearly to the character of the prairies in the western country. And the forest groves, in general, were less luxuriant than in the more hilly lands of the adjacent country [to the east]."[84] This is reminiscent of an early 18th century description of the yet uncolonized Little Nine Partners patent immediately south of Columbia County in present day Milan and Pine Plains near the Mohican community of Taghkanic and the Harlem Valley, where the landscape was described as "…Part Bushy Plains producing Little timber, and part… fertile [land] lying in small patches along the river side."[85] The thinly-forested landscape of the western lowlands and other lowlands near native communities had clearly been strongly modified by past indigenous land management practices; the mountainous areas in the east, still heavily forested, were somewhat less affected.

Many shrubby species of open fields that have cultural and economic importance are also fairly uncommon today. This is likely due, in part, to excessive deer herbivory in recent decades, excessive haying, and competition with invasive species. Such species, including American plum and American hazelnut, were likely much more abundant due to native land management methods, including prescribed burns, regularly fallowing cornfields, and

maintaining deer populations at healthy levels.* For example, the stretch of Claverack Creek between modern-day Philmont and Claverack was known as *Pahkanesi* (*Seepoos*) or Hazelnut River, likely referring to large stretches of flats dominated by American hazelnut bushes, as was the case along an area of Kaaterskill Creek across the Hudson (noted in a 17th century deed and a later 18th century map of the area). The same name is noted in Esopus Indian deeds of the Shawangunk Valley, and likely also refers to fallow flats dominated by American hazelnut bushes.



A "hazelnut flatt" noted near the banks of Kaaterskill Creek, Greene County in the 18th century.

From map in NYS Library, "Map showing Hudsons River, the Caters Kill, the Bever Kill…" Cockburn Family Papers, SC7004: 314.

The upper reaches of the *Pahkanesi* or Claverack Creek divide into two major tributaries, both of which flow through fertile cornlands: Northern Creek, aka Squampamuck Creek (noted frequently in Chapter 1), and Agawamuck Creek. Agawamuck Creek may derive from *Ākawaamik* 'Sheltered Flats,' a possible name for the sheltered bottomlands where Harlemville is today. Before flowing into the main stem near present-day Melenville, the *Ākawaamik* passes over multiple waterfalls and through a deep ravine. The number of waterfalls – and perhaps, the biggest waterfall of all, High Falls – gave this entire region the name *Paatkook*, 'Where the Water Shakes Itself

* The existence of eastern or red wolves and eastern cougars also helped to keep herbivore populations at healthier levels.

Off,' a name which would be borrowed and used by local settlers for at least two centuries.

As has been noted elsewhere, the largely open landscape of this part of Columbia County would have existed largely outside of sheltered ravines, swamps, and some valleys, where burns did not reach easily or at all. Among these, one might include the spectacular ravine of Agawamuck Creek, where High Falls is located. There, the diverse assemblage of understory herbaceous plants is testament to minimal past disturbance by fire or clear cuts over the past centuries.

High Falls

The entire region known as *Paatkook* that today encompasses most of the town of Claverack formed the eastern boundary between two different Mohican speaking groups, the westerly group coming to be known as the Catskill Indians in the colonial period. Evidence via names and place names reveals that the Catskill Indians clearly spoke a dialect of the Mohican language, but land deeds and political documents between the 1640s and 1760s as well as political orientation reveal that this group was autonomous from the greater Mohican Nation, even making peace independently with the Five Nations at the end of the Beaver Wars in 1669 (five years before the Mohicans, Wappingers, and other peoples east of the river would make peace).[86]

These two Mohican-speaking groups were still deeply connected by kinship even if they made different decisions respecting the futures of their respective communities; the leadership of both groups heavily intermarried, so that many recorded leaders in the 17th and 18th centuries had one parent from each group. As has been noted, the largely open, fertile lowlands of Claverack Creek belonged to the Catskills, with the Mohicans proper selling land to the north and east in the adjacent Kinderhook and Housatonic watersheds. The relatively high range that rises in the center of the county and is known as the Central Hills formed a natural boundary, and High Falls lay near to that boundary.

Waterfalls have spiritual significance for Northeastern native peoples. Such places – like deep caves and rocky promontories – are viewed as entrances to

the underworld or portals to the sky world, and as such, the respective *maneto* or supernatural being associated with such places is given offerings of tobacco by passersby.[87] And as most spring ephemeral plant species are used as highly-valued medicines by the Mohican People to this day, the concentration of such species in the rocky ravine of High Falls would have only added to the spiritual significance of the place.

Such plants include wild ginger (*Asarum canadense*), wood nettle (*Laportea canadensis*), bloodroot (*Sanguinaria canadensis*), spikenard (*Aralia racemosa*), blue cohosh (*Caulophyllum giganteum*) false solomon's seal (*Maianthemum racemosum*) and white baneberry (*Actaea pachypoda*) among many others. Even the now-rare leatherwood (*Dirca palustris*) that is found at this holds medicinal value in their communities today. Formerly, the strong fibers of this slow-growing shrub were highly valued for both quick binding and for more complex fiber work. The shrub was also once known as moosewood among both local Dutch settlers and native people, for it was a preferred browse by the *moos* or eastern elk and moose. Another former common name for the plant in English, wicopy, derives from the word *wiikpii* 'bast.'

Jewelweed, both common and pale (*Impatiens capensis* and *I. pallida*), are found in abundance. An infusion of jewelweed is valued as a medicine for treating mosquito bites, burns, and other skin issues in the Mohican communities today, including on the Mohican Nation in Wisconsin and among descendants on the Moraviantown Reserve in Ontario. No name seems to be remembered today for this plant, which is, however, called "moccasin jewel" by Lenape people on the Moraviantown Reserve, a name which likely hints at a former Munsee or Mohican name for the plant; the flowers have a vague resemblance to traditional center-seam moccasins. Jewelweed was formerly also used for producing a bright yellow dye used for coloring rushes, deer hides, and porcupine quills.

Another important medicine and dye plant found in more disturbed, younger forest of High Falls is the black walnut tree (*Juglans nigra*). Unlike the white walnut or butternut (*Juglans cinerea*), which was once the dominant tree species in many tracts of forest in the region, the black walnut does not seem to be native to the Hudson Valley north of the Hudson Highlands (this according to a highly-qualified eyewitness in 1750).[88] The current, more

widespread distribution of black walnut trees seems to have occurred after Euro-American settlement, although it had likely occurred on a smaller scale by the Mohican People, who were certainly familiar with a tree that grew in the wild only a few tens of miles to their south.

In fact, although the name for the tree does not survive in the Mohican language today, the name's existence in the Western Abenaki language as recorded in Odanak, Quebec in the 20th century – far, far away from the tree's native distribution – provides the Mohican name. It also hints at the formerly-strong relationship between the Mohican People and the Abenaki. Many Mohican loanwords were adopted into Abenaki in the precontact period. These certainly include that for black walnut, or *bedegômenozi* in Western Abenaki, meaning 'round-nut-tree.'[89] The only known cognate is found in the Lenape languages, such as Munsee *ptukwiimínzhuy*, also 'round-nut-tree,' and the Mohican language was geographically located between Munsee and Western Abenaki.

Both the once much more common white walnut and the more recent black walnut are used for the same purposes: the inner bark of both provide a medicine for Lenape people that is used externally to treat wounds and sores as a pain killer, and is used internally as a gentle laxative. Both trees were and are valued as a source of brown and black dye for deer hides, and both were once used for driving away household pests (such as fleas) by spreading the leaves on the floor and as a treatment for fungal infections such as ringworm (the juice of the hulls is used for this purpose). And as was noted earlier in this work, the Mohican word for white walnut tree – *pahkanoosi* – contains the root for the loanword pecan.

Another more recent tree that is found in the disturbed areas of High Falls and throughout Columbia County is the black locust (*Robinia pseudoacacia*). Like the black walnut tree, the black locust was extensively spread by Euro-American farmers over the course of the 18th and 19th centuries as a fast-growing, nitrogen-fixing ornamental and as a source of both quality firewood and rot-resistant fence rails. And like the black walnut, there is some evidence that this tree was first intentionally spread by native people in the precontact period: its wood was highly valued for making the strongest bows for hunting and for warfare.[90] The tree's name in the Mohican and other Lenape

languages, *kaawaakw* 'thorny-tree', was recorded by missionaries in the 18th century. The tree was so highly valued for its wood that a grove of quality black locust trees, said to grow on the southern tip of the island of Manhattan, gave it its name in the earliest record of the place name's origin (which is derived from Munsee [*enda*] *Manaháhteenk*, 'where wood is gathered to make bows').[91]

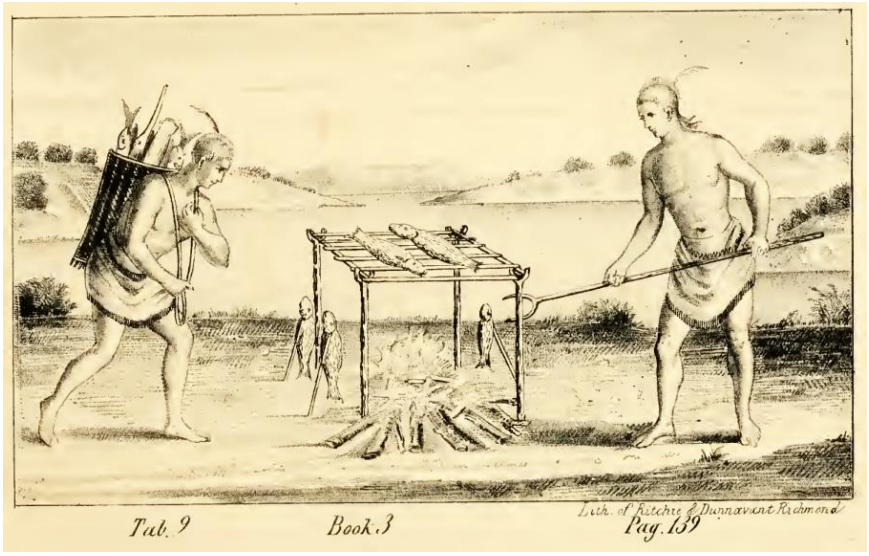
Other thorny plants once found in abundance in the fallows and burned lowlands of *Paatkook* would have included small trees such as hawthorns (*Crataegus* spp.), whose fruit, called *wchiikun*, could be gathered in the autumn and smashed into cakes, which were dried for later winter use; this was also once true of the fruits of nannyberry and blackhaw (*Viburnum lentago* and *V. prunifolium*).[92] Likewise, the long, thorny canes of the blackberry (*Rubus* spp.), called *kaaweshemen* or 'thorn-fruit,' would have grown in abundance, just as they do in many places today, along with the raspberry (*Rubus idaeus*) or *kokwanis* 'moldy-(berry).' Both species are valued to this day among Mohican descendants in Wisconsin and in Ontario both as a food and as a medicine: the roots are used as a powerful cure for diarrhea in all Lenape communities.

Like all of the creeks of the region, the Agawamuck was certainly fished for American eels, particularly during the eel fishing season of early autumn. Two life stages are recognized in the Mohican language for the American eel. During the species juvenile years' of residence in local freshwater systems, the eels were called *weesaamakw* or 'yellow fish' for their distinct yellow-green coloration. By adulthood, the larger eels transform to a steel-blue color and are called *maham* or *mahamuw* meaning 'downstream [spawning] fish,' a name that accurately describes how unique this catadromous species is by departing in early autumn for its deep oceanic spawning grounds far to the south in the Atlantic, opposite to other local migratory fish species.

There are frequent 17th and 18th century records to the Mohican People and their neighbors fishing for eels – especially in the early autumn eel season – but few records describe how the slippery fish were processed. The yellow eels were generally caught on warm summer nights with spears and pitch pine fatwood torches (by daytime, the long, serpentine fish hide in the rocks underwater). And so on warm summer evenings, fishermen would take

torches and wade into the creeks to pools with abundant eels and spear them. In select locations, wintering eels would also probably have been speared by prodding for them in the mud, a practice that continues to this day among Mohican descendants on the Six Nations Reserve in Ontario.

In the autumn spawning migration, when thousands of eels swim downstream together, the eels were caught in unique large basket-like traps which were likely called *mihtkwunootaay*.[93] The name, which would come to be used for splint baskets in the colonial period, refers to the firm woody stems of shrubs used to weave these contraptions using a basket weave. They resemble a long tube with concave funnels on one or both ends. The traps were placed at the ends of stone or pole weirs built into creeks to funnel the eels inside and were periodically removed over the course of a night to empty the trap of dozens of heavy, squirming eels. The basket-traps were also used for carrying quantities of dripping eels or other fish on the back with the aid of the ubiquitous burden strap or tumpline.



Early 18th century engraving of related Coastal Algonquian fishermen from the Tidewater processing fish. Note the fish basket/trap being carried over the shoulders (Beverly, 1722: 139).

It is extremely likely that local Mohican fishermen dispatched quantities of eels in the same efficient way that the Penobscots of Maine did until the early 20th century: by dumping them in a concavity excavated in the ground filled with ashes.[94] The ashes remove the slime off of the struggling eels, which are soon dead. The great quantities of eels were then skinned (the skins often smoke dried and saved to make ribbons for wrapping women's traditional clubbed hair) and what fatty meat was not cooked and eaten immediately would be dried on racks over a low smoky fire and put away for the winter.

American eels, though a substantial food resource and of such importance as to be one of the Mohican clans (Yellow Eel), were far from the only aquatic food resource. The Mohicans – the River People – also harvested great quantities of edible aquatic plant root and seed resources in season, notably arrow arum (*Peltandra virginicum*), arrowroot (*Sagittaria latifolia*), and goldenclub (*Orontium aquaticum*), all noted in 17th-18th century records and place names, as well as freshwater mussels and snapping turtles. And above all, they heavily relied on the great quantities of anadromous fish that they caught in the Hudson River and its tributaries in the spring fishing season, especially shad, blueback herring, alewives, striped bass, and the culturally-important Atlantic sturgeon.

Netsinker found near Stockport Creek.

NMAI 20/2953

Late Woodland clay pipe, possibly representing an eel (Dutchess County).

NMAI 20/2564

The huge Atlantic sturgeon, once a major source of food for the Mohican People, continues to have great cultural significance for the displaced Mohican Nation in Wisconsin. In fact, the Stockbridge Mohican Reservation is located near to one of the most noted (lake) sturgeon fishing areas in the United States: Lake Winnebago. During the time of the Stockbridge Mohican's first displacement to Oneida, NY in 1800, a wooden sturgeon was carved by a tribe member and set atop the steeple of their new church as a memory of their Hudson River homeland.[95] A few generations earlier, when most Mohican People were still living in their ancestral land in the Hudson Valley, a naturalist traveling up the Hudson River north of Albany observed Mohican fishing techniques for the giant Atlantic sturgeon:

"June 22nd… We saw [sturgeon] for several days together leap high up into the air, especially in the evening… They are said to prefer the shallowest places in the river, which agreed pretty well with our observations; for we never saw them leap out of the water but in shallows… the Indians, fish for sturgeons, and every night of our voyage upon this river, we observed several boats with people who struck them with harpoons. The torches which they employed were made of that kind of pine, which they call the black pine here. The nights were exceedingly dark… The shores of the river lay covered with dead sturgeons, which had been wounded with the harpoon, but escaped, and died afterwards; they occasioned an insupportable stench during the excessive heat of the weather… The sturgeons were cut into long slices, and hung up in the sunshine to dry, and to be ready against winter."[96]

Atlantic sturgeon-shaped warclub, likely Mohican, mid 18th century.

NMAI Collections, 20/2196

Wooden lake sturgeon decoy for spearing lake sturgeon through the ice. Created by Stockbridge Mohican Frank Denslow, early 20th century.

From Kline, 2009: 116.

Atlantic sturgeon were not the only giants in the Mohican world. In the early 18th century, a gigantic tooth (and other mastodon bones) were found by a farmer in the Claverack area. Local Mohican, Catskill, and Esopus Indians knew exactly where the bones came from, for like other Eastern Algonquian peoples, they had a gigantic culture hero. In the Mohican language, he was called Maughkompos.* This culture hero was "…as tall as the tall Pine trees" and "would hunt bears till they were treed & then take them with his hands." He "was peaceable and would not hurt the little Indians," who "would give him meat to eat & he would receive it kindly; though they said they always was afraid of him."[97] He would even "…wade into [the Hudson River] 12 or 14 foot deep & catch Sturgeons 3, 4, or 5 at a time and broile them on the Fire for his food"; he was so big that he was in the habit of eating four sturgeons for his breakfast.[98] The shortnose sturgeon can grow to be 50 lbs; the Atlantic sturgeon as much as 800 lbs. Regardless of which sturgeon species he was consuming for his breakfast, Maughkompos was clearly a hearty eater!

It is almost certain that the formerly huge, naked clay bluffs under the Greenport had stories associated with this powerful culture hero, just as the colorful clay bluffs of Gayhead, Martha's Vineyard are said to have been created by the Wampanoag version of Maughkompos, Moshup. Sadly, such a story does not appear to have survived into the 21st century; nor has a Mohican name for this once stunning landmark. What we are left with, however, is the Dutch name for these clay bluffs: Claverack, or Klaver-Rack (Cliff/Bluff Reach; each stretch of the Hudson River had a named "Reach"). The huge bluffs – nearly devoid of vegetation – shined white from the calcium within the clay, deposited by glacial Lake Albany 12,000 years ago when the ancestors of the Mohican People may have still been living in the Pacific Northwest. Most of the klavers or clay bluffs, which stretched from the City of Hudson through what is now Greenport Conservation Area, were mined over the many decades in the 19th century for the brick industry, practically obliterating them. Fortunately, a number of paintings exist from before this landmark was destroyed, giving us a good idea of what it looked like.

* Likely the same being is known as Moshup to some New England Algonquian peoples and as Misaabooz to many Great Lakes Algonquian peoples.

A view of the Klavers north of Hudson (at low tide). Middle Ground Flats – now covered in tall cottonwood trees but once a mud flat – can be seen.

From Thomas Charles Farrer, "A Buckwheat Field on Thomas Cole's Farm" (1863)
MFA Boston (62.265)

Another view of the Klavers north of Hudson (likely at high tide).

From Charles Herbert Moore "Hudson River Above Catskill" (1865)
Courtesy of Amon Carter Museum of American Art, Fort Worth, Texas (2003.9)

Perhaps vast colonies of bank swallows were once found in softer parts of these clay bluffs, along with kingfisher nesting cavities. What is certain is that the unique calcareous, clay soils supported (and continue to support) an amazing diversity of uncommon plant species, many of which hold – or once held – medicinal value for the Mohican People and their neighbors, and at least some of which are still found in the forests and fields of the Greenport . One species – a tree which may have once had great cultural significance – is the bur oak (*Quercus macrocarpa*), a regionally uncommon oak species which has been documented at the site.

This majestic white oak species has the largest acorns of any oak species in North America. Fascinatingly, this mostly Midwestern species is known for having four disjunct populations in the Northeast. One is found exclusively in Mohican-speaking parts of the Hudson Valley (including Columbia County), southwestern Massachusetts and northwestern Connecticut. The second is found in Western Abenaki lands along Lake Champlain; the third is in Eastern Abenaki/Penobscot lands in central Maine (both the Kennebec and Penobscot Valleys), and the fourth in Passamaquoddy lands in New Brunswick (St. Johns River).

All four of these Northeastern Algonquian groups were intimately connected to one another in the protohistoric period and until the mid to late 18th century (so much so that the Abenaki languages are full of Mohican loanwords), and it is entirely possible – if not probable – that bur oak acorns were actively spread among and planted by these groups in their respective territories. It is even possible that an annual bur oak acorn harvest coincided with early autumn freshwater mussel harvesting, providing a major source of winter food. This would have been especially important in years when the maize crop did not do well, and would have provided a time for different Mohican bands to come together, as did the Penobscot People in Maine to harvest bur oak acorns and oysters out of the same camps.[99]

The abundant clay of the Greenport was certainly mined for use to make cooking pots, tobacco pipes, and other utilitarian objects. Like other Northeastern native peoples, Mohican women were the artisans making the gorgeous cooking pots, sherds of which are sometimes found in abundance in and around old village sites. Late Woodland Mohican pottery can be difficult to distinguish from the pottery made by neighboring Lenape relatives in the lower Hudson Valley, and is also difficult to distinguish from that made by their Iroquoian Mohawk neighbors (and long-time enemies) to the west in the upper Mohawk Valley. Archaeologists have noted, however, a few

defining characteristics of Mohican ceramics in the years just before and after contact, most notably an "… incised band of interlocking plats of verticals, horizontals, obliques, or triangles underlain by a row of large, deep, distinctive punctates at the base of the collar."[100] Likewise, the tempering agent used in vessels can be helpful in distinguishing their origin: Mohican pottery vessels use finely-crushed igneous metagabbro rocks as a temper, as has been noted in studies of vessels from the Goldkrest Site near Albany and at a site in Bethlehem, NY.[101]

The difficulty in distinguishing Mohican/Hudson Valley pots from Mohawk/Oneida pots by sight is, ironically, likely due to generations of on and off conflict between these two groups. The Mourning War Complex has long been noted as characteristic of Eastern Woodlands cultures, in which warriors, by taking "scalps or captives[,] demonstrated their honorable enactment of the idealized male gender roles and in the context of mourning war fulfilled reciprocal obligations of their kin, clan, and gender by replacing lost members of the community either physically with captives or spiritually through scalps."[102] The adoption of enemy captives – frequently female – was certainly also a profound mechanism of cultural exchange. The captives would have brought their own ceramic decorating knowledge with them, leading to increasing similarity in the ceramic styles between otherwise hostile groups over the centuries.*

Late Woodland (Mohican) Pottery vessel found in Troy, Rensselaer County

NMAI 20/3464

* That there were also likely times of peace between the Mohicans and the Mohawks is revealed in Late Woodland evidence of Hudson River sturgeon parts brought to Mohawk archaeological sites along with chert from Mohican territory and an early 17th century written record that states that the two groups had formerly been friends, at least for a period (Bradley, 2006: 17-18).

Some researchers have noted evidence of the exchange of clay tobacco pipes between the Mohican People and their close Hudson Valley and Abenaki/New England Algonquian allies in the decades before and after Contact, with contrasting evidence of no exchange of pipes with their Mohawk neighbors to the west. On the other side, pipe exchange between the Mohawks and other Haudenosaunee communities, including the distant Senecas, has revealed political changes in the Five Nations/Haudenosaunee during the same period. The lack of pipe exchange between Hudson Valley Algonquian and interior Iroquoian groups can be dated as far back as six centuries.[103]

Fragment of Late Woodland clay pipe, Laurentian style (found on Mohican site of Winney's Island, Saratoga County). The presence of this pipe from the 16th century Laurentian Iroquoian communities is likely evidence of peaceful, diplomatic exchange between the Laurentians and the Mohicans. The Laurentian Iroquoians were at war with and later totally destroyed and assimilated by the Mohawks/Five Nations (the middle of the 16th century), decades before the arrival of the Dutch West India Company in the Hudson Valley.

NMAI 24/2430

Other regional pipe styles from the Late Woodland Period.

NMAI 23/4918

Pipes are frequently smoked – and sometimes gifted – at times of diplomatic exchange between leaders; the intermingling smoke symbolizes the respective parties' thoughts coming together. The small but potent tobacco plant grown and used by Northeastern native peoples – *Nicotiana rustica* – is believed by them to be a medium of exchange between humans and the universe. Tobacco was given to native peoples in ancient times for this purpose, a belief found in all of the Mohican/Lenape communities today. For smoking, the powerful tobacco grown by Eastern Woodlands peoples is traditionally mixed with other spiritually-powerful plants to add flavor and tone down the medicinal effects; in the Hudson Valley, the autumn-red leaves of sumac species (*Rhus* spp.) are traditionally most used for this purpose.

There are four species of sumac found in Columbia County: the staghorn sumac (*Rhus typhina*) and the less common (in descending order) smooth sumac (*Rhus glabra*), winged sumac (*Rhus copallinum*), and aromatic sumac (*Rhus aromatica*). At least the first three of these species are not distinguished from one another, and are called by the same names in Northeastern native languages. Few plants have has many recorded medicinal uses among the Mohicans and their neighbors as the sumac species: every part of these shrubs is used as a different kind of medicine, including the roots, bark, leaves, flowers, and fruits, both fresh and old. Likewise, the fruits are traditionally dried and soaked in water in the wintertime for a refreshing sour beverage, and the young shoots in late spring/early summer are peeled and eaten raw as a snack and blood-purifying medicine. Other parts of the sumac are used as a dye or as a mordant when combined with other plant-based dyes. Staghorn and smooth sumac can be found in edge habitat throughout the county, including Greenport.

Closer to the river, including at the top of the clay bluffs, may be found the uncommon northern white cedar (*Thuja occidentalis*). In Columbia County, wild northern white cedar is basically restricted to the banks of the Hudson River, which is also true in virtually all of the Hudson River estuary. Here, this tree can be found in a variety of habitats including freshwater tidal swamps, rocky islands and shorelines, and on clay bluffs, such as those of Greenport. This tree species, so uncommon is here, is otherwise abundant in more northerly forests outside of the Hudson River Estuary, where it has high utilitarian value for native people wherever it grows. The bark is easily peeled,

leaving straight, flexible poles that can be used for temporary structures, frames for drying, and for steaming into the ribs and gunwales of bark canoes. The tree is also a medicine; like the eastern red cedar and the eastern hemlock, northern white cedar has high spiritual value for the Mohicans and other Lenape People, and the leaves are commonly kept and used both as a medicinal tea (used for suppressed menstruation) and steam (for treating inflammation of the joints) and are burned. The smoke wards off ghosts and illness and is purifying and widely used by the Mohican People today.

In many shady parts of the forest understory, particularly in oak-dominated forests, a unique member of the viburnum family can be found: maple-leaf viburnum (*Viburnum acerifolium*). One of this species' common names, dockmackie, owes its existence to cultural exchange between the Mohicans of Columbia County and their Dutch-speaking settler neighbors at some point in the 17th or 18th centuries.[104] With the Dutch diminutive suffix "-ie" removed, we have the word "dockmack," possibly from a Mohican word like *takamāahkw* 'pierced-shrub' or *takweemāahkw* 'clustered-fruit-shrub.' This shrub's relative abundance in steep, forested bluffs on the shore of the Hudson River is due to minimal white-tailed deer herbivory today; farther inland, the high deer population has practically eradicated this shrub in some locations.

In the tidal marshes down below the clay bluffs at Greenport, a number of wetland species of medicinal importance (and former importance as a food source) can be found. These include sweet flag (*Acorus americanus*), whose potent, fragrant rhizomes are highly valued as a protective medicine by native peoples throughout the Northeast and Great Lakes and are chewed to treat or ward off illness. Also present is wild rice (*Zizania aquatica*), the beautiful plumes of which wave in the wind of summer and early autumn in the many tidal marshes of the Hudson River. Although there is currently no evidence of wild rice consumption by native peoples of the Hudson Valley in the protohistoric period, a few later accounts reveal that native peoples of the region were likely at least familiar with the plant's edibility and harvest/preparation techniques. It is likely that the extreme importance of maize-based horticulture eclipsed any need to harvest wild rice as anything more than a supplemental source of food.

Today, the Mohican Nation in Wisconsin is located in the lands of the Menominee People, who speak a distantly-related Algonquian language and whose national name describes their reliance on wild rice as a food source to this day. Many Mohican People today have one parent or grandparent who are Menominee. Those Mohicans, Catskill Indians, and other Hudson Valley native peoples who did not join the Stockbridge Mission and make the exodus to Wisconsin largely ended up in Ontario after the American Revolution, where they intermarried with other Lenape and Haudenosaunee and largely lost their Mohican identity (but not the memory of their ancestors). And yet other Mohicans from the region, intermarried with other Lenape as early as the 1720s in the Ohio Country, have descendants today in the Delaware Tribe and Delaware Nation displaced to Oklahoma. In recent years, more and more Mohican and other Lenape People have returned to their ancestral lands in Columbia County and the Hudson Valley for visits. Perhaps one day, a few families will reestablish themselves once again in their lands along the Great Tidal River.

A woman pounding corn in a mortar.

De Vries, 1644: 156.

Contemporary Mohican/Lenape Communities

A century after initial colonization in the ~1620s, the ever-increasing settler population, pandemics, war, and environmental destruction made traditional livelihoods impossible in the region. Many Hudson Valley Lenape bands and families moved westward to protect their traditional way of life. This slow, multi-generational exodus started in the early 18th century and was almost complete by the time of the American Revolution, but would continue until about 1850; by this point, indigenous presence in the Hudson Valley was a thing of the past.

All present-day Lenape communities have existed in their current locations in Wisconsin, Ontario and Oklahoma since the middle of the 19th century or earlier; non-federally recognized groups or individuals claiming Mohican or Lenape heritage in the Hudson/Delaware Valleys today are fraudulent. Today, increasing awareness of their ancestral homeland means that contemporary Mohican/Lenape people visit the Hudson Valley with greater frequency. Moreover, over the tumultuous two centuries of movement westward, speakers of the Mohican, Munsee, and Unami languages intermarried. Subsequently, descendants of all three groups are found in all six contemporary communities, who share many of the same surnames.

- **Stockbridge Munsee Band of Mohican Indians** near Bowler, WI (https://www.mohican.com/) [the official government and main body of the Mohican Nation of the upper, primarily eastern shore of the Hudson River and the Wappingers of the lower eastern shore of the Hudson River to Manhattan]
- **Munsee-Delaware Nation Reserve** (aka Munseetown) near Muncey, Ontario (https://www.munsee.ca/) [the current seat of the tribal government originally from Minisink and the upper Delaware River and Highland Indians from the western side of the Hudson River]
- **Moraviantown Reserve** near Thamesville, Ontario (http://delawarenation.on.ca/) [largely descended from Unami communities of northern New Jersey and adjacent parts of Pennsylvania and Munsee and Mohican speaking people from the Hudson Valley]

- **Six Nations of the Grand River Reserve**, Ohsweken, Ontario (several hundred Lenape and Mohican descendants are found on the reserve) (https://www.sixnations.ca/) [largely descended from the Esopus Indians, Catskill Indians and their neighbors in the Hudson Valley around Greene, Delaware, Ulster and Sullivan Counties]
- **Delaware Nation** (aka Delaware Tribe of Western Oklahoma) near Anadarko, OK (https://www.delawarenation-nsn.gov/) [largely descended from Unami speakers of the coastal plain of New Jersey, Delaware, and southeastern Pennsylvania]
- **Delaware Tribe of Indians** near Bartlesville, OK (https://delawaretribe.org/) [largely descended from Unami speakers of the coastal plain of New Jersey, Delaware, and southeastern Pennsylvania]

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[1] Uncited ethnoecological information and use of the Mohican and Munsee languages in this report comes from a yet unpublished database consisting of records from well over 1,000 sources (Wexler, 2024). Select Mohican vocabulary of importance is given citations in this work.

[2] Aupamut, 1790: 14-16; Kribs, 1928: 228-229; APS, Mss.970.1.H35c

[3] Malhi et al., 2001; Fiedel, 2013.

[4] Even loanwords of a common or intimate nature spread from Mohican to these languages; the words for woman, bread, dog, wolf, and likely others were borowed into the Connecticut River dialects, and the Western Abenaki language still spoken today in Canada includes the Mohican words for grandfather, woman, maize, bean and others, including (likely) the word for black walnut, a tree once found no farther north than the lower Hudson Valley. See Goddard, 2008.

[5] Haefeli, 2020.

[6] For an explanation and map of these protohistoric archaeological clusters, see Bradley, 2006. 12-13.

[7] Goddard, 2008

[8] Those Mohican and Catskill Indian leaders with recorded parents in the 17th and 18th centuries reveal that the two groups' leadership extensively intermarried.

[9] This list is based on an extensive unpublished database of over 700 Hudson Valley indigenous pictographs/signatures and other records, many unpublished, describing their clan systems (Wexler, 2024).

[10] APS Mss.970.1.H35c.

[11] Aupamut, 1790.

[12] The Mohican head sachem in the mid 17th century, Skiwias (aka Aepjen), may have had as many as five wives (see Gehring, Charles T., "Translation of Mahican Passages from Slichtenhorst Court Proceedings." New Netherland Project, New York State Library, Albany.)

[13] Settlements adjacent to floodplains, consisting of no more than a few scattered houses and with hunting and gathering camps located in surrounding upland zones, had become the norm by the Late Woodland Period throughout the Hudson and Delaware River watersheds. These settlements were virtually always located on a terrace or bench of land along the stream and/or floodplain (see Stewart, 2019: 21). In conrast, in the nearby Susquehanna and western Mohawk Valleys, Iroquoian communities consisted of densely populated, nucleated settlements, usually fortified, and located on hilltops (see Stewart, 1993).

[14] 18th century British Indian Superintendent Sir William Johnson describes this sense of territory very clearly: "That it is a difficult matter to discover a true owner of any lands amongst Indians, is a gross error, which must arise from the total ignorance of the matter… Each nation is perfectly well acquainted with their exact original bounds; the same is again divided into due proportions for each tribe, and afterwards subdivided into shares to each family, with all of which they are most particularly acquainted; neither do they ever infringe upon one another or invade their neighbor's hunting grounds." (Sir. Wm. Johnson to the Lords of Trade, Oct., 1764, DRCHNY, Vol. 7. 672.)

[15] 1762, Van Rensselaer Family Papers, sc28332, New York State Library; Deposition of Joseph Van Gilder, October 1768, John Van Rensselaer Papers, Miscellaneous Manuscripts V, New York Historical Society.

[16] One was located on the edge of the Helderberg Escarpment, another important boundary between the Catskill Indians and Mohicans. Another stone monument pile, at the confluence of the Green and Housatonic Rivers in Great Barrington, marked the boundary between two groups of Mohicans in the Housatonic Valley. The southern group had strong kinship ties to groups in the Roeliff Jansen watershed. The northern group had strong kinship ties with groups in the Kinderhook and Hoosic watersheds.

[17] Aupamut, 1790 in Jones, 1864: 16.

[18] Clifford & Booth, 2015.

[19] Tallamy, 2021.

[20] Abrams & Nowacki, 2008.

[21] Rev. Benjamin Wadsworth's Journal of 1694 (digitized by the Otis Historical Commission: https://studylib.net/doc/7223869/wadsworth-s-journal--1694---town-of-otis--massachusetts [Accessed November 2021]); Livingston's 1714 Journal (Dunn, 2000: 92-97).

[22] Thompson et al., 2013.

[23] Rugenstein, 2004.

[24] Descriptions can be found in Dwight, Vol. 3, 1823.

[25] Columbia County NRI, 2.

[26] Vispo, 2014. 41-42.

[27] "John Hendrik Bruyn of New York City merchant for 120 Bevers sells to Hendrick Jacobse Gardinier of Albany County yeoman land at Pompoenik above Kinderhook on east side of the Kinderhooks kill beginning at a small creek called by the Indians Nakamekassick otherwise known as the Cleyne (Little) kill which runs into the Great Kinderhook kill which is the 3/4 part of land on both sides of sd Cleyne kill and runs up to the Indian Castle with adjoining wood land part of a tract granted to John Hendrik Bruyn by Late Gov Francis Lovelace on 9 Jan 1671 Signature acknowledged in Albany 29 May 1686 Witnesses Pieter Schuyler Robt Livingston. No date of record. [Land Rec Albany 5-368]" This is also written as Nackamekasuck in the 1686 Kinderhook Patent.

[28] 1937. Swadesh, Mahican Lexical File. ACLS Collection, Mss.497.3.B63c. American Philosophical Society.

[29] 1717 Deed to Johannes Hollenbeck, New York State Archives, A0272-78, V06, 184.

[30] Minutes of the Commission of Indian Affairs in Albany, Vol. 2" in The Records of the Albany Commissioner of Indian Affairs, 1678-1755: An Integrated Digital Database at http://ebooks.library.cornell.edu/i/indianaffairs/. II-208.

[31] Venema, 2001: 4-6.

[32] Venema, 2001: 4-6.

[33] It could be argued that environmental degradation was a major factor in convincing Hudson Valley native communities to sell their lands (traditional subsistence strategies became extremely difficult). There was a noted loss of deer, turkeys, bears, waterfowl and other game because of unrestrained colonial hunting and habitat loss. Likewise, we hear of a likely decline in anadromous fish species because of the vast number of dams built over the course of the 17th and 18th centuries for grist and saw mills (as noted in the journals of travler Pehr Kalm in 1749). Pigs even became a problem in areas where they were let loose to devour traditional native foods, such as shellfish, arrowroot tubers, hickory nuts and other mast. We find records of native people in the Northeast complaining on all these counts.

[34] "Observations on Van Baal's Patent", 1776 Correspondence John Jay Papers, Columbia Library Digital Collections.

[35] Minutes of the Commission of Indian Affairs in Albany, Vol. 2" in The Records of the Albany Commissioner of Indian Affairs, 1678-1755: An Integrated Digital Database at http://ebooks.library.cornell.edu/i/indianaffairs/. II-208.

[36] "Minutes of the Commission of Indian Affairs in Albany, Vol. 1" in The Records of the Albany Commissioner of Indian Affairs, 1678-1755: An Integrated Digital Database at http://ebooks.library.cornell.edu/i/indianaffairs/. 316a-317.

[37] "Memorandum of Illegal Precedings," Van Rensselaer Family Papers, NYS Library, sc28232_b6-f26.

[38] Minutes of the Commission of Indian Affairs in Albany, Vol. 1" in The Records of the Albany Commissioner of Indian Affairs, 1678-1755: An Integrated Digital Database at http://ebooks.library.cornell.edu/i/indianaffairs/. 316a-317.

[39] Minutes of the Commission of Indian Affairs in Albany, Vol. 1" in The Records of the Albany Commissioner of Indian Affairs, 1678-1755: An Integrated Digital Database at http://ebooks.library.cornell.edu/i/indianaffairs/. 316a-317.

[40] 1931, Tantaquidgeon. 109, 124-125; 2013. Cook. 100-101.

[41] Wexler, 2024.

[42] In contrast, in the closely related Unami language once spoken in the lower Delaware Valley and Coastal Plain, the generic word for duck is *kwikwinkëm*, which otherwise is specific for the black duck, and which seems to show that Unami communities of the Coastal Plain spent more time in open marshes, and Hudson Valley communities spent more time in forested wetlands.

[43] Until a few decades ago, raccoons were still hunted by this method on the Moraviantown Reserve in Ontario, one of the largest communities of displaced Hudson Valley native peoples left (Wexler, 2024).

[44] M'Cullough, 1756.

[45] Aupamut, 1790 in Jones, 1864.

[46] 1822. Eaton, Amos "Manual of Botany", 3rd Edition. 278.

[47] Pearson, Jonathan, trans. "Early Records of the City and County of Albany... Vol. 2" in Ninety-ninth Annual Report on the NYS Library. University of the State of New York, Albany: 1918. 282.

[48] Stinchcomb, G.E. et al. "Pre-colonial (A.D. 1100–1600) sedimentation related to prehistoric maize agriculture and climate change in eastern North America" Geology, April 2011; Vol. 39; no. 4; p. 363–366.

[49] Aupamut, 1790 in Jones, 1864. 22.

[50] Aupamut, 1790 in Jones, 1864. 22.

[51] The works of Benjamin Smith Barton, John Bartram, and other 18th century naturalists describe many Northeastern grassland bird species in detail.

[52] Early Records of the City and County of Albany, Vol. 2, 241-242.

[53] Conversation with Dr. Ives Goddard, April 2024.

[54] Jones, 1864: 39.

[55] Much more detail can be found in Pope, 1886.

[56] Wright, 1905: 158-160

[57] Morgan, 1907: 178; Heckewelder Communications.

[58] Aupaumut, 1790: 69.

[59] Other research has also determined the distinct possibility of Konkapot's mother being from the Catskill Indians (Smith, 2010).

[60] Deposition of Joseph Van Gilder, October 1768, John Van Rensselaer Papers, Miscellaneous Manuscripts V, New York Historical Society.

[61] Conference at Deerfield, Mass, Between Gov. Belcher and Several Tribes of Western Indians, 1735. Edward E. Ayer Collection, 154 .M4 M4 1735

[62] An Opossum Clan was noted in the mid 19th century by a member of the Stockbridge Mohican community (Morgan: 1859-62); the name is identical to that used for the marten, and as the opossum was not found in the Hudson Valley before the 19th century, it is highly likely that the Opossum Clan was originally the Marten Clan.

[63] Vispo, 2014: 97.

[64] Heckewelder, 1876: 261-262. I have come across this same belief among some Mohicans today.

[65] McVaugh, 1958. 306.

[66] 1741 Deed to Stephen Bayard et al, NYSA, Indorsed Land Papers Vol. 13, p. 111.

[67] Thompson et al., 2013.

[68] 1741 Deed to Stephen Bayard et al, NYSA, Indorsed Land Papers Vol. 13, p. 111.

[69] The exclusive use of young hickory trunks for the frames of wigwams is noted repeatedly in the ethnohistoric literature of the Northeast in the 17th-20th centuries.

[70] Abrams & Nowacki, 2008: 1130.

[71] 1758 Deed for Canaan.

[72] Ellis, Captain Robert. History of Columbia County, NY. Philadelphia, PA: Everts & Ensign. 1878. 411.

[73] The names for the months of the year used by the Mohican Nation today in their community in Wisconsin are based on the calendar of the Mississauga Ojibwe Nation in Ontario. Few bear any resemblance to the more typical month names used by formerly neighboring Northeastern native peoples such as the Mohawks, Western Abenaki and Munsee.

[74] Livingston's 1714 Journal (Dunn, 2000: 92-97).

[75] Speck, 1931: 175.

[76] The love of the black bear for acorns and other mast is found in the Nanticoke name for the animal in the Chesapeake Bay region: 'winquipim' (Vans Murray, 1996 [1792]), and the Narragansett name, 'paukúnawaw' (1643. Williams Key.) in the area of modern-day Rhode Island.

[77] Wassenaer's Historisch Verhael (1628) in Jameson, 1909: 28.

[78] Tantaquidgeon, 1942: 50-51.

[79] Zeisberger, 1780: 58.

[80] 1860s, John Peter Quinney Medicine Ledger, Wisconsin Historical Society.

[81] 1860s, John Peter Quinney Medicine Ledger, Wisconsin Historical Society.

[82] 1946: Speck.

[83] Columbia County NRI, 65.

[84] Spafford, 1824: 117.

[85] Hunting, 1897: 17.

[86] Haefeli, 2020: 427.

[87] Harrington, 1921: 51.

[88] Kalm & Larsen, 1750: 150; 154.

[89] Day, 1994.

[90] There are many early records of the tree's high value as a source of quality bows, as well as numerous 17th and 18th century descriptions of the tree growing among Coastal Algonquian communities of Virginia, the Tidewater, and up to Long Island. The macrobotanical record also reveals evidence of *Robinia pseudoacacia* growing in the Delaware River watershed in the precontact period (see Messner, 2011: 97).

[91] 1770s: Zeisberger & Whritenour, Unami (Mission Delaware) Wordlist; Heckewelder in Tooker, 1901: 25-26; Goddard: 2010.

[92] Swadesh, Mahican Lexical File (1937). ACLS Collection, Mss.497.3.B63c. American Philosophical Society

[93] The earliest attestations of this word are cognates in neighboring Algonquian languages, and refer to the eel or fish trap. The word seems to have become associated with splint or cane basketry by later Mohican/Lenape speakers (word from Swadesh, Mahican Lexical File (1937). ACLS Collection, Mss.497.3.B63c. American Philosophical Society). One of the earliest descriptions of one of these traps among Coastal Algonquian peoples – which are barely described in the extant literature and usually briefly noted -- is the following: "…they gave us of their fish readie boiled (which they carried in a basket made of twigges, not unlike our osier)..." (Brereton, 1602: 6.) Attestations to the use of these traps for carrying fish is found throughout the Eastern Woodlands from the 16th through the 19th centuries, however, as well as an engraving from the early 18th century.

[94] Speck, 1940.

[95] From "1784-1829: Establishing a Town" https://www.mohican.com/history-1784-1829-establishing-a-town/ [accessed February 2024]

[96] Kalm, 1750: Vol 2, 279-281.

[97] Lutz, 1982: 20.

[98] Morris, 2013.
[99] Nicolar, 1893: 178.
[100] Kerber, 2002.
[101] Petrola, 1998.
[102] Ball, 2013: 13.
[103] Kuhn, 1986; Brumbach & Bender, 1986; Kuhn & Sempowski, 2001.
[104] Eaton, 1818: 490.