

A Sign in the Sky: Dating the League of the Haudenosaunee

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Anyone up for a big fight need only mention to an Iroquois the dates offered by Western scholars for the founding of the *Rotinonshón:ni* (Haudenosaunee) League.¹ In the main, Western historians posit two possible inception times: one post- and one precontact. The postcontact "date" has been vague, falling somewhere in the mid-sixteenth century until quite recently, when Dean Snow ably associated it with a 1536 eclipse.² The precontact date is barely so, occurring only a generation before contact in the year 1451, also as fixed by an eclipse.³ In 1982, historian Bruce Johansen nudged discussion back another four hundred years, citing Haudenosaunee "Keepers," or oral historians, who have always maintained the absolute antiquity of the League.⁴ Based on both Western and Native sources, the authors will show that the Keepers have been correct all along: the Haudenosaunee League was founded on the pleasant afternoon of August 31, 1142.

THE MID-SIXTEENTH CENTURY CLAIM

Since the mid-sixteenth century is favored by conservative scholars who have mainly guided discussion to date, an exam-

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ination of the mid-sixteenth century claim is necessary. Except for Snow's rather precise 1536 eclipse which will be taken up separately in our eclipse discussion below, the evidence for dating the League to the mid-sixteenth century is all fairly speculative, relating especially to pottery (which is never mentioned in tradition) or to the palisades (which are mentioned in tradition).

Until conservative scholars can present some basis for their connection between pottery and the traditions of the League, it cannot be considered as "evidence" of the League. A connection does, however, exist with the palisades, leading advocates of the mid-sixteenth century date to cite European reports of the construction of Iroquois palisades in the mid-sixteenth century, uncritically identifying them as the palisades of League tradition.⁵ Yet the sixteenth-century palisades simply do not comport with traditions of the League. The era of the League culminated in the Great Law, or Constitution of the Five Nations; that is, it resulted in *the blossoming* of Haudenosaunee culture. Logically, then, the right palisade era marks the dawning, not the impending destruction, of Iroquois culture—a condition that is simply not met in the mid-sixteenth century, for Euro-contact resulted in *the disruption* of Haudenosaunee culture. Thus, conclusions have been too hastily drawn from reasoning that is illogical, using a scope that is partial. A proper inquiry must widen to include an earlier era that also witnessed the burgeoning of palisades. It fell in the twelfth century.

DATING THE PALISADES

Since all authorities agree that the League was founded specifically to end warfare, evidence of internecine Iroquois strife is crucial to any attempt at dating the League. Palisades—log fortifications defensively encircling the outer perimeter of a town—are clear evidence of anxiety over safety. Thus, anthropologists and historians who promote a mid-sixteenth century date eagerly cite elaborate palisades appearing circa 1550, while studiously ignoring much earlier palisades, half a millennia before. In fact, there were *two* periods in which palisades flowered, both of which must be considered in dating the League. (Although there was never actually a hiatus in palisade building since their use started circa 800, two major peri-

ods of palisade activity stand out. For convenience of discussion only, we have dubbed them *eras*.)

The first era occurred from 800 to 1300 of the Common Era (C.E.). In 1968, archeologist William C. Noble dated the Iroquois palisade era as beginning circa 1000 C.E. In 1977, David M. Stothers refined this data at the Princess Point site in Ontario, Canada,⁶ where he found the first known palisades, dating circa 800 C.E.⁷ These findings have never been challenged or superseded. In New York proper, archeologists William Ritchie, Robert Funk, Mary Ann Palmer Niemczycki, Susan Prezzano, and Vincas Steponaitis have all done significant work on the Owasco period, which is clearly identified with palisades between 1000 and 1300 C.E.⁸ In her article on the theoretical basis of the League, Marie-Laure Pilette specifically speaks of these findings of New York palisades as occurring "upwards of 1150" C.E. ("*vers 1150*").⁹

Because there is, however, evidence of continued hostilities after 1150, historians have rather naively assumed that the Pax Iroquoia could not yet have been established, which is something like insisting that the United Nations cannot exist because there is still fighting in Europe. Political reality was never so simple. Even after the League was formed, old rivals still surrounded the Haudenosaunee on all sides: the Ojibway, Abenakis, Adirondaks, Montagnais, Mahicans, Lenni Lenapes, and the slur-called "Huron,"¹⁰ just to name the nations of primary concern.¹¹ Indeed, it was the constant danger from other Native Americans that spurred the evolution of the Iroquois theory of expansionism as a peace process.¹² Thus the ratification of the Great Law by the Five Nations did not obviate—it merely reduced—the need for defensive palisades.

Nevertheless, oblivious of the twelfth-century activity, mid-sixteenth century proponents pounce upon the second blossoming of palisades, postcontact. Mid-sixteenth century palisades certainly did mark a new era of Iroquois anxiety, but it was not over their Native American neighbors. We must ask: what happened in 1492? All too many scholars miss this question.

THE EUROPEAN THREAT

It is an error to assume that European reaction to "discovery" can serve as an interpretive model for Native reaction to

European contact. There were *two* contacts, and they were alike in neither timing nor content.

The Western myth that warfare was the only form of contact that Native nations had with one another precontact is simply not supported by the evidence.¹³ News of European visits spread like wildfire through extant gifting networks, strong alliance units that bound groups together across long distances, so that copper from the upper Great Lakes arrived on the Atlantic coast, just as wampum from the Atlantic coast moved west throughout the Northeastern Woodlands.¹⁴ News as well as goods moved swiftly along these gifting pipelines, connecting Algonquian and Iroquois.

Part of the spreading news concerned the new threat to Turtle Island rising out of the Eastern Sea. (*Turtle Island* is the Native term for North America.) The Europeans may not have been aware of Native Americans until colonial times, but Native Americans discovered the Europeans circa 1480 as Basque and Breton cod fishermen began frequenting the American Atlantic coast.¹⁵ Their visits intensified in 1503, 1511, and 1520, news of which circulated to the Interior along with the new metal trade goods they brought.¹⁶

Thus, Jean de Verrazane's (Giovanni Verrazano's) 1524 journey all along the North Atlantic coast was hardly the novel or surprising development to woodlanders that it was to Europeans. Moreover, word of Europeans, their visits and their character, spread inland quickly with the wampum shipments, along with the caution, contempt, and fear which the European intruders inspired.¹⁷ Many of the elaborate precautions Natives took against physical contact¹⁸ may well have been related to the upsurge in fatal illnesses that they quickly realized followed in the European wake.¹⁹

More of their hesitation, however, related to the various military forays almost uniformly mounted by these "first explorers." In 1524, for instance, deeply offended that the New England natives were mooning his landing teams, and not content to let the naked insult pass unavenged, Verrazane led a squad of twenty-five armed men into the village near modern-day Portsmouth, Maine, and summarily opened fire, forcing hastily assembled villagers into full retreat.²⁰ News of such alarming events spread rapidly, as gifting networks were also military alliances.

The Iroquois experienced European intimidation tactics for themselves beginning, perhaps,²¹ with Jacques Cartier in 1534.

During Cartier's three voyages to the St. Lawrence, he used fire-power to hunt the game with reckless abandon and to cow the local populace; he also built guarded strongholds on Native land.²² And, like all European adventurers, Cartier made a habit of carting off captives for show and tell around the palace upon his return to Europe. Toward the end of his second voyage in 1536, Cartier actually *abducted a primary sachem* of the Laurentian Iroquois, Donnaconna—an act that guaranteed Native notice.²³ Forty-five years later in 1580, the Iroquois were still so outraged by Donnaconna's abduction that they refused Europeans access to the St. Lawrence River.²⁴

To the 1536 impression of treachery, Cartier added that of outright national peril in 1541 when he returned to "New France" for the third time, bringing along several hundred colonists. The Iroquois, now fully acquainted with the temper and ethics of these newcomers, besieged the settlement, driving the French out in 1543.²⁵ Western scholars may downplay this third voyage of Cartier as a romp, an obscure colonial "failure," but the Iroquois remember it well for, to them, it represented a *victory*.

In other words, although the kidnappings, fatal epidemics, over-hunting, military skirmishes, fortifications, and abortive colonies may not have made a very deep impression on the European psyche, the attendant death, destruction, and refugee problems they caused Native Americans profoundly distressed the Iroquois. By the mid-sixteenth century, the Haudenosaunee most certainly were fortifying against a frightening new enemy: the Europeans.

THE KEEPINGS IGNORED

Historians are aware that, absent internecine strife as the reason for mid-sixteenth century palisades, their claim for a post-contact League is in jeopardy. To get around the difficulty, some propose that the European invasion actually stimulated the formation of the League. This argument not only posits European contact as the central event of Haudenosaunee history, but it does so illogically. Somewhere in the middle of this circular spiel, the threat to the pre-League Iroquois transmutes from each other into the Europeans. The argument is specious.

More importantly, such an explanation simply does not accord with *any* tradition of the League. Keepers name corn

cropping; palisades; civil war; the five original nations; Jigonsaseh, Deganawida, and Haienwátha ("Hiawatha")²⁶ as co-founders; other Native American nations, like the Cherokee, that turned down the invitation to join;²⁷ a solar eclipse; and a snake-linked cannibal cult. Yet in all this wealth of detail, there is only *one* potential reference to Europeans in League tradition. It comes in the form of a prophecy, a distant vision of a future unknown. In parting (in the Chiefs' version of the tradition of the Great Law), the Peacemaker (Deganawida) warned the Five Nations never to quarrel among themselves, for:

while you are quarreling with each other, the white panther (the fire dragon of discord) will come and take your rights and privileges away. Then your grandchildren will suffer and be reduced to poverty and disgrace.²⁸

That this is the only potential reference to Europeans in League tradition poses a serious problem for advocates of the claim that the European presence stimulated a mid-sixteenth century League. We know who "the enemy" was during the mid-sixteenth century: the Europeans. We also know who "the enemy" was in League tradition: the cannibal cult. At no point does League tradition state that the cannibals were Europeans; quite the opposite, the cannibals were an absolutely Native group. If the mid-sixteenth century claim is to stand, its advocates must demonstrate that the cannibals and the Europeans are one and the same. They must also explain why the Keepers seem unaware of this extraordinary fact.

Astonishingly, conservative scholars have not let a complete dearth of evidence hamper their mid-sixteenth century date, but continue to champion a postcontact League based on little more than personal bias. This approach is illustrated in the work of anthropologist Elisabeth Tooker, a prominent spokesperson for a mid-sixteenth century founding date: "Four hundred years ago perhaps, the five Iroquois nations united in a confederacy, their tradition states, to establish peace among themselves," ran one typical assertion in 1988.²⁹ In it, Tooker gives the erroneous impression that it is *Haudenosaunee Keepers* who hold the League to be only four hundred years old when, in fact, it is only Western scholars—and not all of them—who believe so.

Tooker's lack of clarity is a persistent problem. In 1978, ten years before composing the article cited above, her chapter on

the League that appeared in the standard Smithsonian reference work, *Handbook of North American Indians*, likewise launched her discussion of League history with this supposed disagreement among *Keepers*. She wrote:

The various Iroquois traditions give different estimates of the length of time the League had been in existence before the Whites arrived. Nevertheless, although there is disagreement, virtually all suggested dates for the founding of the League fall in the period from A.D. 1400 or slightly before to 1600 or slightly before.³⁰

Tooker inaccurately implies that the *Keepers* are in disagreement with one another when, actually, it is Euro-historians they are disputing. Worse, Tooker leaves the impression that *Keepers* and Western scholars are both putting forward the same range of dates. They are not. It is conservative, non-Native scholars alone who uniformly date the inception of the League in the mid-sixteenth century. *Keepers* uniformly date the League between 1000 B.C.E. and 1390 C.E.

Haudenosaunee *Keepers* have been insisting on the League's antiquity since Europeans first started keeping written accounts of America. As Paul Wallace aptly noted as early as 1948,³¹ some of the earliest references appear in the writings of French Jesuit missionaries, who began propagating the Christian faith along the St. Lawrence River early in the seventeenth century. *Les Relations des Jésuites* (The Jesuit Relations) chronicle those early missions providing important, date-stamped references to what the *Keepers* were saying about the age of the League in the mid-seventeenth century. In 1654, the Jesuits noted:

En effet de tout temps, ces cinq Nations Iroquoïses, s'appellent dans le nom de leur langue, qui est Huronne, Hotinnonchiendi, c'est à dire la Cabane acheuée; Comme s'ils n'estoient qu'une famille [emphasis added].

In effect, *from the earliest times*, the Five Iroquois Nations have been called in their own language, which is Huron, *Hotinnochiendi*—that is, "the completed Cabin"—as if to express that they constituted but one family [emphasis added].³²

In 1691, Father Milet wrote that:

Les Onneiŕts mayant adopté pour un nommé Otassete qui de son uivant Estoit homme de Conseil Et qui passoit de toute anciennete pour auoir [eté] un des Soutiens de la Nation [emphasis added].

The Onneiouts [Oneidas] having adopted me for one called Otassete, who in his lifetime Was a member of the Council, And who was regarded *from all antiquity* as having been one of the Mainstays of the Nation [emphasis added].³³

When these Keepers spoke of “all antiquity,” they did not mean grandmother’s girlhood, the interval that would be required to substantiate a mid-sixteenth century claim. They meant time immemorial.

Thus, it is not only modern Keepers who claim an ancient founding date. Mid-seventeenth century Keepers were also insisting on the absolute antiquity of the League. It is vital to recognize that Western scholarship is not the only possible source of information on the League. The Keepers are competent witnesses in their own behalf; hence, Haudenosaunee tradition must be taken into account in dating the League. The authors now turn to Haudenosaunee tradition.

KEEPERS AND TIME FRAMES

Although there are a plethora of colonial documents mentioning the League—from the journals of John Heckewelder and Cadwallader Colden to the governmental reports of Conrad Weiser and Benjamin Franklin—Keepers themselves made no deliberate efforts to set down The Great Law, or the Constitution of the Five (later Six) Nations, until the late nineteenth century. The wampum records of the Law having been stolen, scattered, and/or destroyed by then, the inheritors of the League, saddened by so much death, destruction, and loss, wanted to put down their information before death claimed their knowledge.³⁴ The major versions of tradition from this crucial transition period are the two Seth Newhouse traditions (1885, 1916); the Chiefs’ tradition (1900, first published in 1911); and the two versions by Six Nations’ Chief John Arthur Gibson (1899 and 1912).³⁵ For purposes of this paper, ethnographic

"sources" like David Cusick and J.N.B. Hewitt are excluded. The reason for their omission is that such so-called Native informants are simply *not* interchangeable with traditional Keepers. Keepers are Native-recognized, not Euro-appointed.

Seth Newhouse was a Mohawk Keeper who wrote extensively on the tradition of the Law. Although A.C. Parker published one version of Newhouse's Great Law in 1916, it was not the most complete version, which Newhouse had composed in 1885. Despite the fact that League historian Paul A. W. Wallace was assured in 1954 that the 1885 version was "regarded among the Six Nations as 'the canon',"³⁶ it still languishes unpublished. As recently as 1986, Christopher Vecsey was forced to read it in manuscript on microfilm to construct his fine survey article on traditions of the League.³⁷

Also inexplicably ignored have been the two Gibson versions, which League scholar Paul Wallace claimed told "a more coherent story than is found in the other versions" that are readily available.³⁸ Writing in 1986, Christopher Vecsey agreed with Wallace, saying that the core story was "best represented" by Gibson's 1899 manuscript.³⁹ Although William Fenton did translate an edited version of the 1899 Gibson tradition into English in 1941,⁴⁰ it, too, remains largely unavailable to the average student, tucked away in the Smithsonian archives.⁴¹ The 1912 Gibson version also remained in private hands, unavailable until 1992 when it was published, somewhat obscurely, in translation.⁴² (It is unlikely that these versions have been withheld by Natives, since they are not in possession of the written manuscripts and Newhouse and Gibson certainly realized that their work would be perused by non-Native scholars. Thus, the reason for the obscurity of some versions must be sought elsewhere.)

These turn-of-the-twentieth-century traditions all continue the claim of great antiquity for the League. The most recent date proposed by any Keeper is that found in the Chiefs' version: "As far as can be ascertained," their committee stated tentatively, the formation of the League "took place about the year 1390."⁴³

In his 1885 version, Newhouse was more emphatic concerning the League's antiquity, declaring that:

[W]e are now upholding our *Ancient Government* which was *Established by the Heavenly Messenger "De-ka-na-wi-dah"* cen-

tures before our friendly en[e]mies the Columbians (The Palefaces) came to this continent [*italics in the original*].⁴⁴

"Centuries before" continues to be the position vehemently defended by most modern Keepers. John Kahionhes Fadden (Mohawk), the son of Ray Fadden, Paul A. W. Wallace's source,⁴⁵ states:

"Over a thousand years ago..." has been suggested by some, particularly those among the Haudenosaunee suggesting a *very ancient* origin time of the Confederacy. I am certain of only one thing...it was before the coming of the Europeans [*italics in the original*].⁴⁶

In 1971, Mohawk Keepers assured historian Helen Addison Howard that their calculations "would put the founding date at [circa] 1000 or 1100 A.D."⁴⁷ Chief Jake Swamp (Mohawk) even more boldly declares:

I tend to think that two thousand years is not out of reach when you consider the highly sophisticated structure already in place by contact. To be on the safe side of things, I usually just mention one thousand years or somewhere between two extremes.⁴⁸

Jake Thomas, a confederate lord of the Cayuga nation, who is able to recite the Great Law in all five of the Iroquois languages, offers the oldest founding date:

[T]he elders feel that the Peacemaker made the Laws and united the nations before he went across the great salt water to the land of the white race. We feel that it was the same prophet that the white race call Jesus as he was reborn again from a virgin mother and gave the white race the good tidings of peace on earth. So this is according to the elders and what they talked about the founding of the League more than three thousand years ago.⁴⁹

Thus, the earliest time proposed by any Keeper is around the year 1000 B.C.E., while the latest time proffered by any Keepers is 1390 C.E.

BACK-COUNTING THE YEARS

One way Keepers traditionally calculate historical dates is through family lineages.⁵⁰ This was the method the Chiefs used to arrive at their 1390 date. Counting life spans is also the method Thomas used to estimate both the length of time it took to seed the League and the era of its founding.⁵¹

In addition to back-counting the generations, it is possible to back-count the Adodarho, or Presiding Officers of the League. Jake Swamp mentioned that (as of November, 1994) "there have been one hundred forty five men who have served in the position of tadotarho."⁵² The Adodarho enjoys a lifetime appointment to office; hence we know that the League was founded 145 lifetimes ago, as of 1994.

There are still more benchmarks to aid in counting the years through the list of Adodarho. A Mohawk tradition states that in 1534, "when [Jacques] Cartier landed, he was told the present Adodarho was the thirty-third such man."⁵³ Interestingly, there is a probable European counterpart to this Mohawk tradition in Cartier's 1534 journal. After Cartier erected an enormous cross, staking the French claim to the St. Lawrence River valley, a Haudenosaunee sachem rebuked him vehemently, countering that the land in all four directions belonged exclusively to the Iroquois. It was probably during his "harangue" that the sachem read off the thirty-three Adodarho by way of proving his case.⁵⁴ Writing in 1724, Father Joseph François Lafitau, referred to a "stick of enlistment."⁵⁵

Thus, we know from both Native and European sources that Keepers knew and kept track of the number of Adodarho; that by 1534 there had been thirty-three Adodarho; and that, in 1724, one of those numerical counts may have been ticked off to colonial Europeans. Had we the actual length of each tenure of office, dating the foundation of the League would be a trivial matter. The difficulty is, however—as Chief Swamp correctly observes—that dating the League by the Adodarho "requires a guess as to the life expectancy"⁵⁶ common to office holders. Precontact, extreme old age was not unusual in Native America. Early explorers were often surprised by the great age of the elders addressing them. Jake Thomas mentions that, when the Peacemaker finally returned home from his mission, his brothers "were any where [sic] from 100 to 120 years old."⁵⁷

Lacking confirmed data on age-spans, however, the authors resorted to conservative methods to estimate a date. As the

office of Adodarho is a lifetime appointment, Jerry L. Fields used similar European and U.S. institutions as a yardstick for estimating the length of those reigns. The authors recognize at the outset that such calculations are speculative and do not of themselves constitute "proof" of their date; nor are comparative actuarials ever offered as conclusive. Science cannot and does not claim to "prove" theories: it is not possible to *prove* a positive proposition. All science can do is *rule out* certain possibilities in assessing the strength of a hypothesis. The significance of this test, then, is not so much to support the 1142 date as to exclude the 1451 and mid-sixteenth century dates. Nor is this rule-out intended to stand alone. It is offered as one piece of evidence in a paper containing many pieces of evidence, the combined effect of which is to extend a profound challenge to both the 1451 and the mid-sixteenth century hypotheses for the founding of the League.

The results of our calculations may be found in the interval chart given as Table I. Even the most conservative calculations (the 1385 Pontificate date) *strongly exclude* both the eclipse of 1451 as well as the mid-sixteenth century date, while *strongly allowing* our 1142 date. The 1390 date proffered by the Chiefs' tradition falls just five years beyond the most conservative date.

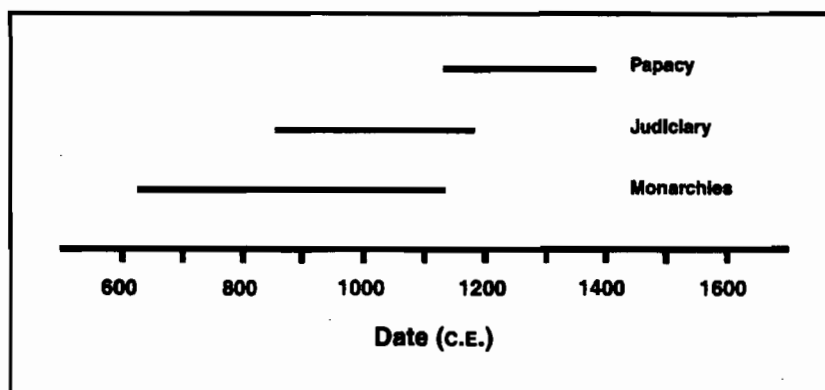


TABLE I LEGEND

TABLE I

Assumptions

The authors realize that in making estimates, we are comparing different socio-historical institutions. Unknown factors that can affect our estimates in an unpredictable manner include health (affecting natural life spans) and politics (resulting in premature death). To even out the sample, we considered eight distinct European monarchies (England, France, Spain, Germany, Denmark, Sweden, Russia, and the Holy Roman Empire), covering 333 monarchs from the ninth to the nineteenth centuries. Because the Adodarho was usually appointed from the ranks of senior members of society—unlike monarchs, who occasionally came to the throne as children—we also factored in the pontificate and the justiceships of the U.S. Supreme Court, both appointments likewise made among senior adults. We continued into the present with our data on the ninety-five Supreme Court justices and the 129 pontiffs of the papacy. Terms of office shorter than one year were treated as unusual events and were excluded from consideration.

Computations

In doing this analysis we have assumed that the individual reigns are independent and normally distributed, $X_i \sim N(\mu, \sigma)$. Then, the sum of n reigns is also normally distributed, $T = \sum^n x_i \sim N(n\mu, \sigma\sqrt{n})$. For the European monarchs we found $\mu = 19.9$, $\sigma = 13.6$; for the Supreme Court $\mu = 15.6$ and $\sigma = 9.6$; and, for the pontificate, we had $\mu = 8.36$ and $\sigma = 6.3$. In rounding the 3-sigma intervals we have gone toward wider intervals.

Monarchies

For the group of 333 monarchs, the average term of office was twenty years. Thirty-three offices lasted an average of 650 years, with a margin of error of 250 years, in either direction. Here, the uncertainty about the average is at the 3-sigma level, thus we are 99.7 percent confident that the time spanned by thirty-three offices falls between 400 and 900 years (i.e., there is a 0.3 percent margin of error, meaning that there is a 0.3 percent chance that the interval is wrong even if our assumptions are correct. However, 99.7 percent confidence is as close to a statement of certainty as science ever comes.). Dating backwards

400 to 900 years from 1534 places the founding of the League somewhere between the year 634 C.E. and 1134 C.E. Although the interval is wide, there is strong statistical evidence that *both the 1451 and the mid-sixteenth century dates are outside of the interval*. Our proposed date of 1142 is a negligible eight years past 1134.

Justices

A similar analysis of Supreme Court tenures obtains a mean service of sixteen years, yielding an interval of 515, plus or minus 165 years (or, between 350 and 680 years). That would place the origin of the League between 854 C.E. and 1184 C.E., a result not significantly different from that provided by the monarchies. Again, *both 1451 and 1536 are ruled out*, while 1142 is within range.

Pontiffs

Finally, the pontiffs, whose tenures average considerably less than either monarchies or the justiceships, produced the shortest interval, a time span of 275, plus or minus 125 years. Dating back 400 to 150 years from 1534 places the birth of the League between 1134 C.E. and 1384 C.E. Once more, *both 1451 and the mid-sixteenth century are entirely out of range*; and, once more, our proposed date of 1142 is within range.

THE ARCHEOLOGY OF TRADITION

Most Keepers regard Haudenosaunee history as divided into three epochs: the Epoch of Sky Woman and her immediate progeny; the Epoch of the League; and the Epoch of Handsome Lake, the late eighteenth-, early nineteenth-century Seneca prophet.⁵⁸ These three epochs describe what the Keepers see as major paradigm shifts to, respectively, (1) maize agriculture, (2) the Pax Iroquoia, and (3) the Code of Handsome Lake. Note that neither of the first two epochs have *anything* to do with European contact. Response to contact is reserved for Handsome Lake, a historical figure who is widely documented in Western sources. Despite the conventional Western bias against oral history as bad history, archeological findings dovetail admirably with major points of tradition. Importantly for our discussion, archeologists have identified an era that

includes agriculture, palisades, cannibalism, and evidence of warfare—the four legs of League tradition. They are trends of the Owasco period (1000-1300 C.E.).

SKY WOMAN AND GRANDFATHER CORN

The actual cultivation of corn, *per se*, seems to have traveled up from southeastern North America. In the Northeast, sites in the Susquehanna (Roundtop and Chenango Point) offer evidence of corn cultivation at least as early as 1000 C.E.⁵⁹ In New England and Hudson drainage sites, maize has been dated as early as 800 C.E.⁶⁰ Between 900 and 1100 C.E., one specific strain, *Zea mays*, an "aboriginal Indian corn/maize,"⁶¹ can be tracked moving south from Princess Point, Canada, to New York, the heart of the Haudenosaunee League.⁶² Thus, archeologically speaking, maize agriculture seems to have seeped into pre-League culture between 800 and 1100 of the Common Era, mainly from the Southwest, but with an infusion of *Zea mays* traceable back to clans in present-day Ontario. Although tradition claims that corn originated in Sky World, its later dissemination is in interesting accordance with these events as offered by archeologists.

In the First Epoch, tradition tells of Otsitsa,⁶³ the Sky Woman who, along with her daughter, brought the Three Sisters of agriculture, corn, beans, and squash. It is no accident that in several Iroquoian dialects *Otsitsa* literally means corn (or corn tassel).⁶⁴ This sudden infusion of the Three Sisters is, as we have just seen, an event Western sources affirm:⁶⁵ farming started suddenly and spread rapidly among all the Iroquoian peoples. David Stothers rightly identifies the first cultivation of *Zea mays* as a crucial period that archeologists see as "a shift in subsistence systems"⁶⁶ from a hunting/gathering/fishing base to a sedentary cultivation base. The Haudenosaunee still raise *Zea mays*. It is so ancient a strain that the Southern Haudenosaunee call it "Grandfather corn."⁶⁷

Intriguingly, Stothers' finding of *Zea mays* moving in an unusual path from Princess Point to New York corroborates the Cayuga tradition that Otsitsa was a "Neutral," or Wyandot, who came from the Princess Point area bringing corn to old Seneca from the Neutrals.⁶⁸ The Corn Mothers were indeed "strangers," exactly as Arthur C. Parker, writing under his Seneca name, Gawaso Wanneh, stated in "The Maize

Maiden,"⁶⁹ a women's tradition of the League passed down to him in all probability by his own foremother, Elizabeth of the Wolf Clan, mother of his uncle, Ely S. Parker. In his biography of Ely Parker, A. C. Parker directly recorded, and this time attributed to Elizabeth, various traditions of the Peace Queen, the Mother of Nations, Jigonsaseh of the League.

THE PALISADES OF WAR

The Epoch of the League was an era of uneasy relations among the Haudenosaunee, as hunters and maize farmers coexisted in anxious, mutual distrust. Defensive palisades, too, correspond to findings documented in Western sources. The first good evidence of Haudenosaunee culture, archeologically speaking, comes from the Owasco site in New York, dating from 1000 to 1300 C.E.⁷⁰ Palisades turn up regularly. Boland (circa 1050 C.E.) is the earliest dated palisade village in New York. It is also among the sites showing evidence of corn cultivation as early as circa 1000 C.E.⁷¹ Much the same appears at the Chenango County Bates site, where both palisades and corn occur.⁷² The coexistence of corn and palisades strongly seconds League tradition, which firmly connects the palisades to maize agriculture. Indeed, the palisading around New York, dating between 1050 and 1300 C.E., precisely mirrors the rise of agriculture there.

Palisades come up frequently in League tradition but Western scholars, largely unaware of how to hear Haudenosaunee traditions, are apt to miss the political nuances connecting palisades to corn, especially when the equally important spiritual connection between men and (trees)/palisades is missed. *The two-by-four reciprocity of corn/women and men/(trees)palisades must be understood before these references can make any but the crudest sort of sense.*

First the spiritual men/tree/palisade connection must be grasped. Important male actors and actions routinely attach at the tree nexus. Thus, for instance, Thomas notes that the elders saw the long-awaited Peacemaker reemerging from "around the huge tree"⁷³ while, in the Chiefs' version of tradition, the elders suggest a tree-test of Deganawida's claim to be the Peacemaker.⁷⁴ The same spirituality is reflected in Hiawatha's discovery of an Oneida chief "sitting beside a fire near a big tree"⁷⁵ and again when a male ally of Deganawida and

Hiawatha agrees "to lie across the pathway like a log."⁷⁶ Instead of taking references such as these literally, at face value, we must take Parker up on his broad hint to round them out into their full Haudenosaunee proportions: according to some Seneca traditions, the souls of dead warriors travel into trees,⁷⁷ from which the palisade logs are hewn. Hence, the "big tree" indicates a palisade log, indwelt by a warrior spirit. This suggests that not one, but two warriors—he *in* the log, and he *by* the log—are guarding the corn field. Similarly, when a confederate pledges to lie down "like a log," he means he will fight to the death to defend the agricultural way.

Next, the (women) corn-palisade (men) reciprocity must be understood. In the Chiefs' version of tradition, for instance, the Peacemaker commissions Hiawatha to rally sympathetic men to the female Cultivators' cause (i.e., his Peace cause). Hiawatha is to know men's politics by their deeds: they will be "watching to protect the fields of corn."⁷⁸ In the Gibson Keeping, the Peacemaker himself examines the intentions of one field guardian. When he asks why men guard the fields, one guardian replies, "Actually, it is our sustenance, the corn."⁷⁹ A bit later, the Peacemaker reiterates this message, telling another guard, "and that [corn] is what everyone will live by."⁸⁰ The message is thus reiterated thrice—twice in the Keeping which, being told itself, makes three—a traditional signal that it is a matter of some importance. The matter is this: trees are Standing People, as are corn, beans, and squash. Thus, the palisades are Standing Warriors protecting their Three Sisters, and all—the Ensouled Trees, the Three Sisters, and their two-legged Guardians of both sexes—are loyal to "the Cultivators," as Elizabeth called the pro-peace Corn Camp in her early nineteenth-century Keeping.⁸¹

THE CANNIBALS OF WAR

Finally, archeologists have turned up evidence suggestive both of cannibalism and warfare (as determined from such sites as Canandaigua and Castle Creek) occurring as early as 1100 to 1300 C.E.⁸² At the Sackett site, the "rather idyllic vision of peace and plenty" was shattered by findings of "the growing tendency from middle Owasco times onward toward stronger fortifications" which, coupled with the direct evidence of "arrow-riddled corpses," led archeologist William Ritchie to conclude

that "the war-victim explanation is perhaps the most cogent."⁸³ At the Geneva site, the earth was found "amply strewn with fire-broken stones and yielding occasional food animal and broken human bones, the latter suggestive of cannibalistic practices."⁸⁴ Once more, archeological evidence has converged with tradition, which talks eloquently of warfare and cannibalism.

WAR AND PEACE AT THE CANNIBAL NEXUS

All League Keepings are shot through with allusions to the strife between the Cultivators and the cannibals, yet the full import of these traditions has been glossed over by academics. Once their meanings are fleshed out, tradition becomes a reliable form of history.

The cannibal cult was a backlash against maize agriculture, which had supplanted hunting and fishing as a subsistence base, shifting the relative social power of men and women. As women raised corn, beans, and squash and began inhabiting towns year round, the need for winter hunting lessened,⁸⁵ stripping males of their former importance. Meat from hunting was now a secondary, not a primary, staple. The cannibal cult arose in reaction to agriculture, pushing an extreme countervision, for cannibalism is a symbolic variation on hunting.

The Haudenosaunee war-peace principle has escaped Western scholars intent on defining warfare as a freestanding event that occurred exclusively between *men* of foreign, hostile "tribes" and only over something tangible, like territory. On the contrary, the League war was ideological, not territorial. It was fought to decide which eco-spiritual system would prevail, the democracy associated with the corn-based system, or the strong-man state terrorism (cannibalism) associated with the prey-based system. Moreover, warfare had an important intersexual dimension.

Most Western academics are frankly unaware of this cranny of tradition because they are unalert to (or at least do not take very seriously) both the distinctions between women's and men's traditions and the deeply culture-shaping place of women in Haudenosaunee society. The European tendency to look for one unified model interferes with comprehension of the League, which requires an understanding of male and female structures as *cooperating* halves in a *balanced* whole, not

competing interests in a hierarchical monolith. To understand the Great Law, scholars must first understand its animating touchstones of cooperation and balance.

The Haudenosaunee social model consistently calls for pairs of complementary structures, seen as halves, without which there can be no balance. This is the principle of mutuality taught in the story of the twins, Sapling and Flint. Although completely independent, each half replicates and reciprocates its mirror-image "other half." One way that mutuality worked out in practice was politically, in the simultaneous existence of women's and men's councils.⁸⁶ Women's Councils were as potent and as powerful as men's—as long after first contact as 1724, Fr. Joseph François Lafitau still identified female counselors as "the soul of the councils"⁸⁷—with the Jigonsaseh (the position title of the Head Clan Mother⁸⁸) of the Women's Council complementing the Adodarho of the Men's Council. Although this fact is consistently ignored in nearly every academic treatment of the structure of the League, focusing on men to the exclusion of women, Clan Mothers' (or "Grandmothers'") Councils operated as the local level of government, forwarding their decisions and opinions to the men's counterpoised Grand Council.⁸⁹

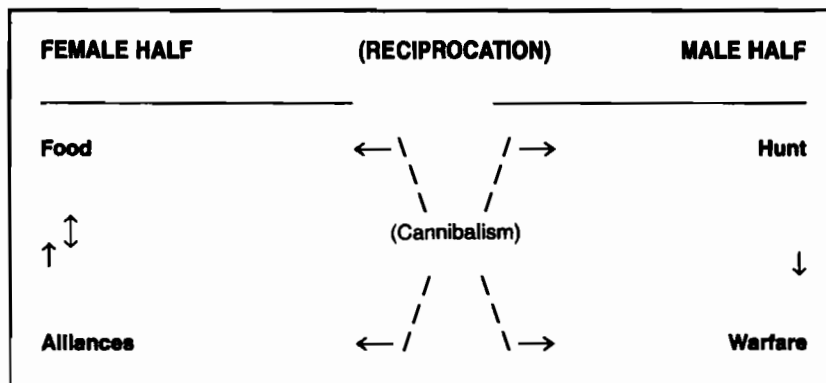
"Keeping" is always a sacred trust. Economically, men alone kept the forest, warfare, and the hunt, while women alone kept the land, peace, and distribution decisions. Food, animal or vegetable, was always the sole purview of women,⁹⁰ *as was agriculture*.⁹¹ The fallacy of male participation in Haudenosaunee agriculture stems from the European presupposition that clearing land of trees is for the Haudenosaunee, as it is for Europeans, an act of farming inseparable from cropping. In Native thought, however, tree work and crop work are independent events. Women tend the crops and men tend the forest. Clearing trees is an interaction between male guardians and their sacred forest, just as farming is an interaction between female guardians and their sacred Three Sisters.

Socially, women made or broke alliances⁹² both in marriage and in peace compacts which, among the Haudenosaunee, derived from kin-based gifting networks. Thus, food and "family" (a concept that includes peace and justice) belong to women. Through the reciprocity principle, these family and food functions directly match their male counterparts of war and the hunt. These male and female functions link up at the nexus of cannibalism.

The temptation to assume that cannibalism was always and only literal and male must be firmly resisted. Furthermore, the symbolic meaning of cannibalism must be understood as it elucidates the reciprocating balance between male and female halves of the sociopolitical unit. In relation to women, cannibalism is about the linked ideas of marriage and adoption; it is usually symbolic. In relation to men, cannibalism may be symbolic or actual, but it is always about the linked concepts of war and the hunt. The two halves always face one another across the symbolic (camp) fire.

Marie-Laure Pilette has done considerable work on cannibalism as it pairs "*alliances*" (the handy French word for both marital and political unions) and the hunt.⁹³ She correctly identifies the underlying, mirror-image structure of reciprocity as the regulating principle, using the imagery of the hourglass ("*le sablier*") as her rhetorical device.⁹⁴ She follows this up with a close look at male hunters' confusion between what is prey and what is woman, who may be prey. The man is alternately, yet simultaneously, a hunter and a lover (a "*chasseur-séducteur*").⁹⁵ Pilette further shows that myth very closely links the concepts of the hunt and of warfare, presenting them as the reciprocating other half of unregulated marriage relations and an unregulated food system (cannibalism).⁹⁶

Cannibalism thus spreads out associationally to connect hunting and war on the male hand, with food and alliances (of marriage and peace) on the female hand. Graphically, the schema looks something like this:



The tradition of the League fits this pattern of reciprocal associations so common to "cannibal" tales: The goal of creating a proper relationship between food (female) and warfare (male) in one crossover, and between alliances (female) and hunting (male) in the other, cross-hatch, so that society may experience a properly regulated domestic tranquility.

Euro-scholars, however, lacking (1) an appreciation of the close conceptual association between warfare and hunting; (2) a preliminary appreciation of women's sturdy position in Haudenosaunee culture, especially their control of food and its distribution; and (3) an awareness of Jigonsaseh's connection to the League tradition as leader of the women who are "the Cultivators," persist in painting the struggle of the League as solely a matter of male-oriented revenge feuding. This perception tells only the men's story of hunting and warfare; it obviates the reciprocating half of tradition, the necessary complement of the women's story of alliance and food. Shorn of Jigonsaseh and agriculture, only the cannibalism remains, apparently connected solely to male warfare, thus creating considerable confusion as to the meaning of the Keepings—not only among Euro-scholars, but among some contemporary Natives as well. Restoring Jigonsaseh and the women's domain, plus the forgotten male domain of hunting, brings the real story back into focus.

A.C. Parker is particularly instructive in this latter regard. Under his Seneca name, Gawaso Wanneh, he recounted the cannibal-corn war in an allegory suitable for children. (That is, it contained the message but lacked the gore of League tradition.) "The Maize Maiden," specifically set "[i]n the olden days, before our world knew the wisdom of Ha-yo-went-ha [Hiawatha],"⁹⁷ lays out the causes of the strife leading up to the League in the violent rivalry between Black Lynx, the elder brother (i.e., the older hunting system) and Corn Tassel, the younger brother (i.e., the newer farming system). Black Lynx is more accurately rendered "Black Night,"⁹⁸ indicating deep night or greater darkness, a time of danger linked to death. Scorning Corn Tassel as a "servant of women,"⁹⁹ Black Lynx sets out to destroy the maize way of life, destroying crops in the fields as well as grain in storage; roasting Corn Tassel over a fire,¹⁰⁰ and attempting to kill the Corn Maiden for good measure. The Corn Maiden and a revived Corn Tassel ultimately prevail over the hunters—with a little help from the Sky People—and ever since, according to this story, the people have

commemorated the Corn victory as part of the annual Green Corn Ceremony.¹⁰¹

Thus, the League tradition incorporates various expressions of cooperating halves in complex reciprocation. Nothing exists in grand isolation, so that any attempt to interpret League tradition in terms of this or that freestanding unit (for instance, the "blood feud" explanation) necessarily amputates most of the meaning by eliminating its complex of complements. The authentic story provides the balance, with female/agriculture/peace as the necessary complement of male/hunting/warfare.

The mid-sixteenth century intrusion of Europeans *disturbed* the traditional dynamic set up by the Great Law by splitting up these "natural" units of meaning. For instance, European contact put war and hunting at odds, with wars now fought over access to hunting grounds. It reformed negotiations so that they were no longer between the reciprocating "male" and "female" symbolic social halves, but solely within the male half; distribution of goods now involved an outside entity, not the internal balance of the female half. Thus, contact clearly obviated—it did not initiate—the principles of the Great Law.

THE CANNIBALS

The Keepers uniformly state that a ferocious domestic struggle, a sort of civil war, immediately preceded the League. The palisaded farm towns of 1142 C.E. stood in mute witness to the strife. They were defending the maize growers against a frightening new development—cannibalism—which Bruce Trigger identifies as "a significant new dimension"¹⁰² to Iroquois life in this era. Around palisaded towns, dating to circa 1150, archeologists have unearthed "*traces de mort violente et même de cannibalisme*" ("traces of violent death and even [or also] of cannibalism").¹⁰³ This new cultural dimension utterly unnerved the maize farmers; they were terrified of the cannibals.¹⁰⁴ In other words, corn and cannibals are intimately linked. The right period will therefore feature both corn growers and cannibals locked in a very specific, internecine struggle. Conversely, no period in which this corn-cannibal strife does not exist, for instance the mid-sixteenth century, can be the right era.

Tradition names the head of the feared cannibal cult that archeologists have unearthed. He was Adodarho of the Onondaga, that "devourer of raw meat, even of human

flesh."¹⁰⁵ A "great wizard and evil," Adodarho was "so cruel that he killed and devoured all men who approached him uninvited."¹⁰⁶ He was also visually terrifying:

His body was crooked, his mind was twisted, and his hair was filled with living snakes. Snakes' eyes looked out from his finger ends.¹⁰⁷

According to Jake Thomas, snakes writhed around his torso, winding around even his fingers, giving this appearance.¹⁰⁸ The Onondaga people so feared Adodarho's power, that they "obeyed his commands and though it cost many lives they satisfied his insane whims";¹⁰⁹ in other words, they provided him (and themselves) with human flesh for his cannibal rituals. From the outset, Deganawida knew that Adodarho would block his way,¹¹⁰ indeed, that he even might be "beheaded and killed,"¹¹¹ eaten by the very cannibal cult he had set out to destroy.

Adodarho was hardly the only threat. There were many other cannibals, and tradition names some of them. One was Hiawatha. Some scholars tend to present Hiawatha as fey and ethereal—or, worse, to confuse him outright with the Peacemaker!—but tradition points vigorously in the opposite direction.¹¹² When Deganawida first spied the man who would become his bosom friend, he was toting home a human carcass as his take-out dinner. Hiawatha was a "man who eats humans"¹¹³—a cannibal. Moreover, he was a high-ranking member of Adodarho's cannibal cult.¹¹⁴ Still, Hiawatha was not quite as fearsome as Adodarho, so, rather than appeal to the ferocious Adodarho directly, the Peacemaker decided to approach him indirectly, through his trusted cohort, Hiawatha.

In a very funny section of tradition, a comedy of errors results in Hiawatha's transformation from cannibalism to Corn, cementing a friendship that passes into history.¹¹⁵ There is crucial significance in their first joint act: Deganawida and Hiawatha *eat*. The Peacemaker announces to Hiawatha the hunter that it is "on the flesh of the deer that the Holder of the Heavens meant men to feed themselves"¹¹⁶ just as he names corn as "what everyone will live by" to the field watchers; that is, their proper sustenance is deer or corn, but not the flesh of their fellow human beings. Thereafter, extensive references to deer meat and deer's antlers as the emblem of the Corn Camp

(i.e., the defenders of the corn) become part and parcel of Deganawida's mission.¹¹⁷

This section must be considered in terms of the female/agriculture-male/hunting complement. Once more, interpretations of tradition attempted by most academics miss much of the traditional point. Deganawida was not a pitch man for vegetarianism. This section is not about food, per se, but the proper balance between male and female halves (raised corn and hunted deer; alliances and warfare). Deganawida was denouncing cannibalism, to be sure, but also the state-sponsored terrorism being practiced by some Iroquois against dissenting Iroquois. Adodarho and the other cannibals were guilty of violating the complementary structure of traditional social relations when they imposed non-consensual leadership, that is, a "strong-man" dictatorship, through terrorism (cannibalism) on their own people.

It is noteworthy that the formation of the League did not equal the abolition of cannibalism, just the abolition of cannibalism practiced by one faction of the now-completed Longhouse against another Longhouse faction. Time elapsed before all cannibalism ended; however, post-League, cannibalism took on a new metaphoric meaning, as part of the Haudenosaunee view of peace. Even though any resurgence of actual cannibalism was deeply frowned upon, note who, after the Great Peace, were the victims of cannibalism: members of non-Haudenosaunee cultures who refused, or were refused, adoption. After the Great Peace, cannibalism was the symbolic way of forcibly taking in those strangers who could not be assimilated by any other means.¹¹⁸ In this connection, it is important to consider the ceremonial associations surrounding things going into and out of human mouths.¹¹⁹ In totem societies, spiritual access attends eating, vomiting, spitting, blowing—and speaking. What goes in comes out again as a related form of power. Cannibalism is associated with force, while corn and deer are associated with peace. Haudenosaunee "peace" is a concept with no Euro-equivalent. In the astute formulation of Marie-Laure Pilette, "*<<paix>> ne signifie donc pas absence de guerre mais tout au moins l'absence d'étrangers*" ("'peace,' then, does not so much mean the absence of war, as the absence of strangers").¹²⁰ Where no strangers are present, force (cannibalism) is inappropriate.

Deganawida makes Deer the insignia of the League to counteract Snake, the tacit or symbolic (though perhaps not formal)

emblem of Adodarho's cult. Symbolism is why there was no "snake clan" specified among what Seth Newhouse termed the "original clans" of the League.¹²¹ It was because Deganawida was deliberately snubbing Snake to honor Deer, as he had earlier honored Corn, to make the point that Corn and Deer were the proper foods of peace.

Any attempt to identify an era as the era of the League must show evidence of cannibalism *practiced by some members* against other members of the original Five Nations, plus a corn/deer response, representing respectively, the "peace" and "war" sides of the fire. It must also demonstrate that cannibalism was a sustained and sanctioned group activity used as a terrorist tactic in a civil war. Finally, it must show the deer/corn sustenance pair arising as a direct response to cannibalism, for the deer/corn matrix *resulted from* the Peacemaker's teachings. There is no evidence that this state of affairs existed in the historical mid-sixteenth century. Any cannibalism that might have been practiced was unsanctioned and never practiced within the Five Nations, but only against outsiders. There was no Five Nations civil war in the mid-sixteenth century; early Europeans encountered instead a cohesive, mature, and functioning League.

THE SKY LINK

The Sky connection, so crucial to Deganawida's success in creating the League, is intimately linked to both his cross-identity as Sapling and his backing in the Corn Camp. There are very specific meanings connected to Sky World and to the spirit of Sapling that attach to the tradition of the League. Any period lacking these connections cannot be the right era.

Although widely recorded, especially in early primary sources, the reincarnation aspect of Haudenosaunee spirituality has been studiously ignored by most Western scholars, who tend to write it off as "superstition"; or worse, first confuse it with Eastern, karma-based ideas, and then dismiss it as an interpolation. Reincarnation is neither a superstition nor an interpolation, but a recurrent theme of the Old Ones. In 1724, Father Lafitau recorded the Haudenosaunee "idea of metempsychosis, the palingenesis or rebirth, and successive transmigration of souls into other bodies after a long revolution of centuries."¹²² Writing in 1818 based on journals kept up

to half a century earlier, John Heckewelder (who lived for nearly fifty years with League peoples) recorded that "a very sensible Indian" had told him of living other lives:

He said he knew he had lived through two generations; that he had died twice and was born a third time, to live out the then present race, after which he was to die and never more come to this country again.¹²³

Many more such references lie scattered amidst the texts.

Haudenosaunee concepts of reincarnation are emphatically not Asian, karma-based philosophies; there is no sense of return as punishment. Traditional Haudenosaunees believe that the "Great Spirit had sent messengers, in the form of Hiawatha and Deganawida" to help the community in crisis.¹²⁴ Only strong spirits return, usually within old family lineages, in times of crisis. Thus, the Peacemaker "was an incarnation of Tarenyawagon" come at a time of traumatic civil war to institute the Great Peace¹²⁵ (a concept he likewise carried across the sea to old Judea in his incarnation as Jesus in the Jake Thomas Keeping¹²⁶). In the crisis era of the League, the "Great Spirit had sent messengers, in the form of Hiawatha and Deganawida," plus other prophets, to help the people through their turmoil.¹²⁷ This is why, at the close of the League Epoch, not only the Peacemaker,¹²⁸ but also Hiawatha, promise to return at the time of the Euro-invasion prophesied by Deganawida. (Hence the title of Paul Wallace's article, "*The Return of Hiawatha*," [emphasis added].)

One of the ways to discover people's cosmic identity is to consider the circumstances of their present life, as circumstances and purposes hold steady from one epoch to the next. Using the same method, Adodarho cross-identifies with Flint, reincarnated to reengage in "the struggle" with Deganawida, himself cross-identified with Sapling. (Indeed, some of the original confusion in Western sources between the Peacemaker and Hiawatha came about through a specious "tradition" that had cross-identified Hiawatha, rather than Deganawida, with Sapling.¹²⁹ The mistaken Hiawatha-Sapling cross-identification took after a tradition that the League-era Adodarho and Hiawatha were "half-brothers,"¹³⁰ which set them in the same relationship as the Sky-era Flint and Sapling, who were each other's complementary "half.")

The various Cycles of Haudenosaunee time are tied together in just this way, by cross-identifying great souls in each. The Epoch of Sky, because it seeded all subsequent action, is therefore vital to understanding tradition. Yet, despite the traditional focus on Sky,¹³¹ the dismissive attitude of Westerners towards the Sky cycle as a "superstition" makes them miss the connections that Parker, Newhouse, Gibson, the Chiefs, Elizabeth, Thomas, and other Keepers all so carefully draw.

League traditions are at pains to tie the main characters of the League Epoch to the main characters of the Sky Epoch, since the Peacemaker's authority derives from his Sky ancestry. He arrives as part of a continuing sacred story. The matrilineal family of Deganawida, the Peacemaker, recapitulates the founding family: his grandmother echos Sky Woman in also being called "Grandmother" (a considerable title), while his supernatural birth harks back to that of the first Tarachiawagon, the Creator Sapling. The Peacemaker "was an incarnation of Tarenyawagon," come at a time of a traumatic civil war to institute the Great Peace.¹³² He sets out in a "white stone canoe," replicating a feat attributed to an earlier Tarachiawagon; Deganawida is forthrightly called by titles of the elder twin—Tarachiawagon, the Holder of Sky World—and is consistently linked to Sky Signs of legitimacy, such as our famous eclipse.¹³³ By creating such Sky links, Deganawida was not only claiming to be simultaneously descended and reincarnated from the great spirit, Tarachiawagon, but also announcing his politics: he was a defender of the agricultural tradition established by Otsitsa and her daughter Lynx, the first Corn Mothers. Corn itself came from Sky World with Sky Woman.

Conversely, in "The Maize Maiden" Parker is at pains to connect Black Lynx, or Black Night, to the younger twin, Flint. He is black, the color traditionally associated with Flint, and is bent on destroying the work of Corn Tassel [Deganawida], just as Flint was bent on destroying the work of Sapling.¹³⁴ Finally, Black Lynx dies by falling into a "crack yawning wide"¹³⁵ in the earth, paralleling the Sky tradition that ends with Sapling sealing Flint inside the earth,¹³⁶ beneath a mountain, in a deep, dark, watery place.

If the Peacemaker of League tradition gains legitimacy through his connections to Sky, then Adodarho, the sometime villain of League tradition, is discredited on the same basis. Adodarho is cosmically cross-identified with the spirit of Flint,

who became destructively insane at the end of the Sky cycle; his mental illness, or descent into the Wrinkled Mind, was the direct cause of his final battle with Sapling. Adodarho of the League is introduced in Newhouse's tradition as "insane."¹³⁷ Like Flint, he "loved disorder but hated peace"¹³⁸ so that before peace could be achieved the "snakes" (kinks) had to be combed "out of his hair" (mind)¹³⁹ giving him "a New Mind"¹⁴⁰—that is, Adodarho's deranged thoughts had to be untangled before the sanity of peace could prevail.

Thus, the Twins of Sky tradition have both returned, Sapling as the Peacemaker and Flint as Adodarho, although their relationship is shattered.¹⁴¹ Nevertheless, the spirits of the two are locked into the same troubled relationship they were struggling with at the end of the Sky Epoch. They are "the supposed half-brothers who carry out the cosmic drama of Tarenyawagon [Sapling] and Tawiskaron [Flint]" in their League-era incarnations.¹⁴²

Once more, there are no such possible connections in the mid-sixteenth century which, being within the historical period, should at least indicate somewhere the presence of the Peacemaker and Adodarho. Handsome Lake, the Seneca Prophet, did claim revelation from Sapling, and some interpret him as an expression of the Smooth Mind, but there is no countervailing Wrinkled Mind other than the European invader, who is simply not the expression of Flint indicated in League tradition.

JIGONSASEH

The spirit of the Fat-Faced Panther, daughter of Sky Woman and mother of both Flint/Adodarho and Sapling/Deganawida, likewise reappears in League tradition. She is Jigonsaseh, the Fat-faced Lynx, the Peace Queen, the Great Woman. Once more, the forceful presence of Jigonsaseh, in her proper cosmic relationship to Deganawida and Adodarho, must be demonstrated as existing in any era claiming to be the era of the League.

As an expression of the spirit animating the Mother of the Twins in the First Epoch and the cofounder of the League in the Second Epoch, she is doubly "Mother of Nations."¹⁴³ "The Great Woman's name was Ji-kon-sa-seh [Jigonsaseh], the Lynx," Elizabeth said, thus cross-identifying the two.¹⁴⁴ The Lynx, Sky Woman's daughter, is the literal "mother" of the

Iroquois according to the First Epoch creation story while, as leader of "the Cultivators" in the Second Epoch, she was also "a descendant of the first woman who came to earth" (Otsitsa). "Her word was law" for without her "approval" of the Peacemaker's mission, "the integrity of the principles of the Five Nations would have been assailed."¹⁴⁵ The reincarnation of this great spirit—the necessary female balance to the male principle—explains what so puzzled Hewitt and many after him, namely, that Jigonsaseh "plays the roles of both the Peace Woman and Deganawida's mother."¹⁴⁶ Not only have the cosmic Twins returned, but so has their mother.

Hewitt's assertion that "Djigonsasa was little known in traditional Iroquois mythology"¹⁴⁷ is frankly inaccurate: it was Western ethnographers, not oral traditionalists, who were unaware of her. Paul Wallace did devote an entire section of *The White Roots of Peace* to Deganawida's visit to Jigonsaseh,¹⁴⁸ but even he seemed puzzled by the significance of it, while a footnote in Hanni Woodbury's 1992 translation of Gibson's *League Keeping* posits the Smooth Mind's visit to her as a *scolding*.¹⁴⁹ While it is true that in some traditions the Peace Queen was like Hiawatha, originally a cannibal who came over to the Corn Camp after she spoke with the Peacemaker, Deganawida spoke only gentle words.¹⁵⁰ In any case, he would not have rebuked her for attending to the ancient obligation of the clan mothers to feed passing war parties.¹⁵¹ In fact, Deganawida was not offering a rebuke; he was suggesting a *strategy*: "If you don't feed them, they can't come." By visiting Jigonsaseh, the Peacemaker was publicly confirming their mutual Sky credentials, his visit signaling to both friend and foe alike that the spirits of Sapling and of his mother, the Fat-Faced Lynx, were acting in concert. The spiritual battle between corn and cannibal had been joined.

Pragmatically, the Peacemaker visited Jigonsaseh to ask her for political support against the cannibal cult. Regardless of which tradition is at hand—that which holds her to have once been a cannibal, or that which holds her always to have been in the Corn Camp—by accepting Deganawida's message, she was agreeing to throw her weight behind his effort. This was the direct reason that he named her the Mother of Nations and agreed himself to women's very significant part in the political life of the League.¹⁵² In return, according to Elizabeth, Jigonsaseh would take Deganawida up on his suggested strategy. Although she would continue to "provide food for the War

Captains," as old law required, she would attach an exhortation to the meal, counseling them "to follow the paths of peace."¹⁵³

Once more, if the mid-sixteenth century claim is to stand, it must not only identify a Jigonsaseh in the historical period but also show her as standing in her traditional relationship with an identifiable Peacemaker, Hiawatha, and Adodarho of the League. The closest candidate for a post-contact Jigonsaseh was a notable Clan Mother of the late seventeenth century who, in the summer of 1687, defeated the Marquis de Denonville when he invaded Seneca.¹⁵⁴

There have been many Jigonsaseh. A. C. Parker even included a photograph of Caroline Mountpleasant (b. 1824, d. 1891), a then-recent Jigonsaseh of the League, as Plate 20 in his discussion of the importance of women in the League.¹⁵⁵ Thus, the attempt to identify the historical Clan Mother of 1687 with the Jigonsaseh of the League mistakes "Jigonsaseh" for a personal name instead of a position title. The 1687 Clan Mother cannot be the Mother of Nations. There is no tradition of the Jigonsaseh of the League ever leading any troops into battle, let alone of her sustaining a significant victory over a French Marquis. On the historical side, there is not even a whisper of the existence of a Deganawida, a cannibal cult Adodarho or a Hiawatha as contemporaries of the 1687 Jigonsaseh.

THE GREAT SKY BIRD

Any dating of the League must account for the Sky signs of tradition in their proper context. There were a multiplicity of Sky signs in League tradition, and they were all marks of the Peacemaker's legitimacy and/or of his competition with Adodarho, who also had access to Sky power. In addition to the reincarnation of League characters from Sky ancestors and the solar eclipse (to which we will return below), League tradition offers a third sky sign, spectacular in its own right.

Hiawatha mysteriously loses his entire family, one by one, in what Newhouse presents as a sort of Corn conspiracy.¹⁵⁶ If the combined losses "bowed him [Hiawatha] down with grief"¹⁵⁷ so that he, and later all the Haudenosaunee, would know how to console one another for losses,¹⁵⁸ they also drove him beyond Adodarho's grasp,¹⁵⁹ effectively ending his servitude to a man who ensured loyalty by ritually dining on dissenters.¹⁶⁰ The

final loss that pushes Hiawatha over the edge of inextinguishable grief results from a memorable Sky sign.

In the Newhouse version, Hiawatha has seven daughters, some say paralleling the "seven crooks" in Adodarho's body; while in the Gibson version, Hiawatha has only three daughters.¹⁶¹ Again, in some versions, it is Hiawatha's wife, and in others, his remaining daughter, who dies.¹⁶² Still, whether seven or three, wife or daughter, the essence of the story remains the same: Hiawatha's beloved is trampled to death in the panic that ensues "when a mysterious bird dropped out of the sky."¹⁶³ Although her death may have been an example of Adodarho exercising his power over Hiawatha, consolation knowledge also resulted, linking the peace cause more forcefully than ever to Sky power.

Attempts at dating the League must be cognizant of the traditional meaning of Sky signs. It is not legitimate to select one Sky sign (i.e., the eclipse), ignoring all others, and then to speak of the privileged sign as though it were denuded of any but materialistic meaning. In fact, the eclipse was but one of a complex of Sky signs, all pointing to the same reciprocal relationships among figures and events in League tradition. Alternate dates must account for how other proposed eclipses fit into the League complex of ongoing Sky signs. Proponents must also understand that the Seneca had no way of knowing that the promised sign would be a Black Sun (eclipse); for all they knew, another blue bird would land. Finally, the mid-sixteenth century claim should be able to identify a historical figure, Hiawatha, who invents the wampum of the condolence council and demonstrates its use as a result of the great bird Sky sign.

THE DATABLE ECLIPSE

While the Onondaga as a whole were ready to enter the League early on, with only the solitary madman Adodarho preventing a consensus,¹⁶⁴ the Seneca inverted the problem. As a whole, the Seneca refused to ratify the Constitution,¹⁶⁵ with only one statesman, the League-era Handsome Lake in most traditions, agreeing to it. (Note the story's reciprocating balance here.¹⁶⁶) The majority of the stubborn Seneca nation, needing to be convinced, stymied ratification of the League for years.¹⁶⁷ To break the Seneca deadlock, "the Peacemaker told them to watch for a

sign in the sky."¹⁶⁸ Ray Fadden (St. Regis Mohawks), father of John Kahionhes Fadden, had the story of the Black Sun this way from the lips of yet an older Keeper named To-re-wa-waguhn (George Nash):

When the peace messenger of Deganawidah went to the Seneca Nation he was not at first welcomed, that is, he was not welcomed by one section of the Senecas, that section who dwelt farthest to the west. As they were thinking it over there occurred a strange event. The sun went out and for a little while it was complete darkness. This decided those Senecas who were in doubt. They thought this a sign that they should join the Confederacy. This happened when the grass was knee high, I think, or when the corn was getting ripe.¹⁶⁹

Obviously, the statement, "The sun went out and for a little while it was complete darkness," can refer only to an impressive eclipse.

Less obvious to the casual reader are the cultural clues concerning the geographic locale, season of year, and time of day. "Knee-high grass" and "ripe corn" are not quaint Indian metaphors, but two very specific times of the Haudenosaunee summer. Women held two major hoeings every season, the first in early June when the corn (grass) was hand-high, and the second in early July when the corn was *knee-high*.¹⁷⁰ The Parker-Newhouse tradition states that each of the Five Nations was approached at the regular time of year set aside for public affairs, "midsummer."¹⁷¹ Midsummer occurs at the time of the second hoeing when the corn is "knee-high"—in early July.

The alternate reference, to "the corn getting ripe," indicates harvest, or Green Corn, time. Green Corn is a widespread woodland harvest festival, shared by all the Native agri-societies of the eastern woodlands. White scholars say Green Corn occurs between mid- and late August through early September.¹⁷² Most Native Americans simply place Green Corn at the end of August, "as summer turned into fall."¹⁷³

For the purpose of fixing a time for Green Corn, it is worth recalling that Mad Anthony Wayne gained his crucial victory at the Battle of Fallen Timbers at least partly because he was crafty enough to attack when he knew the men would be unprepared. They were twenty miles away, in-gathering along

the Maumee River near modern-day downtown Toledo, as the women were, according to the battle survivor Kin-jo-i-no,

in the midst of their corn drying season, and, were busy with their children in the harvesting of this valuable staple for their winter food.¹⁷⁴

Kin-jo-i-no recalled that the men

looked forward to their meeting with the "Long Knives" (She-no-ke-man) as a holiday experience, which they would long remember, and a victory which they would celebrate for years to come.¹⁷⁵

This holiday for which the women were preparing and at which the men planned to sing their victory songs was the Green Corn Festival. The Battle of Fallen Timbers was fought on August 20, 1794. The Green Corn celebration would have been held ten days to three weeks later, between August 30 and September 7. Between this Keeping and Western documents, we therefore have a fairly solid range of dates for Green Corn.

League tradition states that the annual council deliberations over the proposed Constitution continued over several consecutive years, convening each year in midsummer.¹⁷⁶ If no agreement was reached by Green Corn time, the official end of summer and its work,¹⁷⁷ discussion was tabled until the next year. To-re-wa-wa-guhn's alternate times of "knee-high" (late June/early July) or "green corn" (late August/early September) may therefore be considered substantiated.

We can pin down not only the season, but the time of day as well. Among the Haudenosaunee, different activities have traditional *times of day* allotted to them. Spiritual matters are attended to between dawn and noon,¹⁷⁸ while public governmental activities are conducted in the early afternoon.¹⁷⁹ This timing rule explains why Deganawida consistently calls public hearings on the proposed Constitution to convene on consecutive "middays" of midsummer.¹⁸⁰ Since the eclipse occurred while the Seneca were holding a ratification debate—i.e., during a governmental session—we know that the eclipse occurred around noon or early afternoon but before sunset.

Finally, we know the locale from which the eclipse was watched. The convincing eclipse occurred during the ratifica-

tion debate at the Seneca capital of Ganondagan, the site of a football field in present-day Victor, New York.¹⁸¹

We know this much: during a ratification council held at Ganondagan, the sky darkened in a total, or near total, eclipse. The time of day was afternoon, as councils are held between noon and sunset. The time of year was either Second Hoeing (early July) or Green Corn (late August to early September). Thus, we must look for an eclipse path that would totally cover Ganondagan between July and September, in mid-afternoon.

A SMALL CAUTIONARY NOTE

Before we jump into eclipse dating, the authors offer a caution concerning fixity and finality in terms of tradition. As media of measurement, dates are more iconic to Western scholars than they ever could be to traditionalists, who see events as processes, not *faits accomplis* irrevocably attached to one moment in time. Thus, for instance, the admission of the Tuscarora Nation to the Confederacy may be severally dated as 1710 by Wallace; 1715 by the Chiefs' Council of 1900; 1724 by Parker; and as 1735 by Don Grinde.¹⁸² Whereas a historian might dismiss so many dates as *prima facie* evidence of poor information, a Keeper would simply nod assent to them all. To the Haudenosaunee, the entry of the Tuscarora was a process that began around 1710 and was complete around 1735.

The formation of the League was likewise a lengthy process, if one understands the language of tradition. "Tomorrow" means "next year."¹⁸³ By the same token, when Deganawida provides for a Constitutional convention every "five" years, he means about once a generation, just as when Seth Newhouse (1916) mentions the ratification process taking "five years," he means one generation.¹⁸⁴ "The elders guess that it took a period of 100 to 120 years to bring the Five Nations together," Jake Thomas states.¹⁸⁵ Thus, the black sun may well have capped off a century of work.

SOLAR ECLIPSES

Solar eclipses come in three flavors: total, annular, and partial. Of these, the total eclipse is the most dramatic and thus the most likely to be noticed by people in its path. During a total eclipse, the sun is completely obscured by the moon; the sky

becomes dark; stars appear; and gossamer streamers stretch out from the hidden sun. Darkness may last for up to seven minutes.

Less captivating is the annular eclipse. The moon passes directly in front of the sun, but does not obscure it completely, giving the sun the appearance of a narrow ring, or annulus, much like a penny centered on a nickel. The sky does not grow entirely dark, although it may take on a dusky appearance. An annular eclipse would certainly garner the attention of those in its path, but probably would not make as indelible an impression as a total solar eclipse.

Partial eclipses do not darken the sky and therefore are not considered here.

An eclipse is described by a long, narrow strip along the earth's surface called "the central track." Central tracks generally run from west to east, although a few do sweep down from the northwest. Observers within the central track see either a total or an annular eclipse. Outside of the central track, observers on the ground see only a partial eclipse. It is this specificity of the central track that makes eclipse phenomena rare in a given location and allows us to date events from eclipses. For purposes of our discussion, it is worth bearing in mind the unlikeliness that anything other than a total eclipse, glimpsed from the heart of the central track, would be noticed by an ordinary person standing on the ground. An eclipse must be fairly spectacular for a nonexpert to spot it. Robert Newton, in examining ancient eclipse lore, reports experiments performed by himself and other qualified observers (astronomers), testing the ability of non-technical observers to spot eclipses. In each instance, partial and annular eclipses escaped notice, even in the instance of an eclipse that "attained a magnitude of about 0.8," or 80 percent, a significant magnitude, technically speaking. Thus Newton assumes that when an eclipse report was made by an ancient "non-astronomer," it must have been "large enough to be noticed by an ordinary person who was not watching for it."¹⁸⁶ In this regard, we should recall that the Seneca were not necessarily watching for an eclipse. A black sun is one sort of Sky sign, but so was the great blue bird that landed to Hiawatha's rue. Even had the Seneca been on the lookout for an eclipse, they had no prior possession of specifics like time and place. Thus, to have been recalled as a life-changing event, this eclipse must have been spectacular, from the layperson's point of view.

For the sake of completeness, Fields examined the period between 500 C.E. and 1700 C.E., looking at all total and annular eclipses. Between 500 and 1700 C.E., there were 2,800 eclipses. Roughly one-third of these were partial eclipses—*never* total at any time, at any place—and thus excluded from consideration. Fields also calculated the times of day that all the eclipses under consideration occurred, not just down to the hour, but to the minute.

Before we proceed, we must emphasize that when back-projecting eclipse paths this far into the past, the results may be ambiguous. Nothing is absolute, and all conclusions must be taken with some measure of caution. In short, there may be errors in computing the exact location of the eclipse. Uncertainties grow larger the farther we go into the past. The basis of this search is (as it was for Wallace) Oppolzer's *Canon of Eclipses*, which is a product of nineteenth-century calculations. Hence, the eclipse circumstances may differ slightly from modern calculations. However, Fields did double-check a representative sample of calculations against those produced by the most up-to-date computer programs and discovered that there is no reason to believe that such differences are severe enough to warrant the dismissal of Oppolzer-based interpretations.¹⁸⁷ Were we calculating trajectories for some space agency (NASA) project, the differences might matter, but for our purposes here there is virtually no difference in results. The Seneca were ancient laymen, not modern scientists; they just saw the sky getting dark. The *Canon* is perfectly acceptable for determining that effect.

THE ECLIPSES OF 1451 AND 1536

Eclipse dating is not a simple matter of popping open Oppolzer's *Canon* and selecting whatever eclipse date seems best to suit one's argument. Proper eclipse dating, especially back-dating into earlier eras, requires careful attention to details such as the relative positions of the earth, sun, and moon. Moreover, the path of darkening must be carefully calculated to determine who on the ground could have seen it. No seat-of-the-pants approach (like eyeballing a highly generalized map) can replace the mathematical calculations required. Those calculations are extensive, covering thirteen highly tech-

nical pages in the *Canon*,¹⁸⁸ and can only be performed by a qualified astronomer/mathematician.

When Fields performed these appropriate calculations on the 1451 and 1536 eclipses—the two eclipses currently favored by ethnohistorians—neither one made even the preliminary cut. *There is virtually no chance that either 1451 or 1536 is the eclipse in question.* They are included in our discussion only for the sake of argument.

The 1451 eclipse was originally put forward by Paul Wallace in "The Return of Hiawatha."¹⁸⁹ Despite his citation of Oppolzer, the *Canon* clearly places the 1451 event roughly two hundred miles southwest of Ganondagan. Therefore, based on Wallace's own source, the 1451 event could not have been total at Ganondagan. Either Wallace did not perform the necessary calculations to determine the central track of the 1451 eclipse, or he relied upon a casual, visual inspection of Oppolzer's crude maps. In either case, it is clear that comprehensive mathematical calculations were not the basis of Wallace's choice.

Much the same obtains concerning the 1536 eclipse put forward by Dean R. Snow in 1991. Here, the authors wish to make it clear that they are not attacking Dean Snow in the analysis that follows. In fact, Fields found the discussion that Snow provided in "Dating the Emergence of the League of the Iroquois" to be quite an able presentation, given the information on which he relied. Unfortunately, that information was vague, incomplete, and, in the case of his statement that an 80 percent magnitude was sufficient to ensure visibility,¹⁹⁰ simply inaccurate. (An eclipse of 80 percent magnitude is not particularly spectacular. The magnitude should be at least 95 percent to garner attention on the ground.) The global map Snow reproduced might seem impressive enough to the layperson, but it was in reality too sketchy to act as a basis for the scientific determinations he sought to make. From Snow's list of twenty-one candidates, thirteen must be eliminated based on the time of year. Of the eight remaining eclipses, only one, the annular eclipse of July 17, 1357, would have been of noticeable magnitude, and even it would probably have just looked like a gloomy day. Thus, however convincing the 1536 conclusion may look to a layperson, the argument depends on the scientific ignorance of the reader for its success.¹⁹¹

The authors believe that it has been only the the lack of scientific review that has allowed ethnohistorians to bandy the 1451 and 1536 eclipse dates about as though they were estab-

lished fact. It is why Snow can go on to argue confidently in 1994 that, based on earlier research into the matter, the 1536 eclipse is more "likely" than the 1451 eclipse¹⁹²—as though 1451 and 1536 were the only possible candidates when, astronomically speaking, they are the two worst candidates for the League eclipse.

THE LEAGUE ECLIPSE

Wallace and Snow were correct in this, however: Oppolzer's *Canon* is a proper starting point. Oppolzer provides coarse maps of the central track for total and annular eclipses. The target region of New York lies at roughly 77 degrees west longitude, 43 degrees north latitude. An examination of Oppolzer's maps yields thirty-eight eclipses in our target quadrangle bounded by 40 degrees north, 70 degrees west, 50 degrees north, and 80 degrees west. By considering only those events that occurred during the summer (here broadly defined as June through early September), we reduced our candidates to a set of twenty-one eclipses. We suspect that this is the same procedure used by Wallace in arriving at his 1451 date, as 1451 is the first precontact event in our list as well.

Since the maps in the *Canon* are north-pole centered, azimuthal equidistant projections of that part of the globe north of the tropic of Capricorn (i.e., a map shaped like the emblematic map of the United Nations), they lack detail. Fields therefore took our analysis one step further and computed the central tracks for each of our twenty-one candidates.

After calculating the circumstances of the twenty-one eclipses, we were left with six eclipses that would have been visible as significant events in the target region during the period we are examining. (If one wishes to go back further in time, the list would lengthen.) As previously mentioned, neither the 1451 nor the 1536 eclipse makes the cut; we include them here only to reconsider Wallace's and Snow's original propositions. Thus, we present eight, not six, eclipses in Table II and Maps I and II, purely for the sake of review. We have labeled the eclipses A-H on the table and, correspondingly, a-h on the two maps.

Modern calculations yield slightly different and sometimes conflicting results, due to the problem of different formulas in the various computer softwares used to calculate central

tracks.¹⁹³ For example, modern programs would identify both 1451 and 1142 as "partial," albeit nearly total, eclipses. Astronomers would note the difference. To any layperson standing in their path on the ground, however, both would almost certainly have attracted attention and probably have appeared virtually total.

It is important for the reader to understand the concept of *partiality*. There are different degrees of eclipse partiality, depending upon the observer's location. The way partiality operates may be compared to the amount of water in a cup. When well outside of the central track, a partial eclipse is similar to a half-full cup. When nearer to the central track of the eclipse, the cup is more nearly full; while, within the central track, the cup is overflowing. Therefore, although the "modern calculations" mentioned above indicate that both the 1451 and the 1142 eclipses were "partial," their *degrees* of partiality varied enormously. The 1451 event was a total eclipse, but its central track fell *far* to the southwest of Ganondagan (Victor, New York), meaning it would have appeared to be a partial eclipse to anyone viewing it from central New York. In other words, the cup was half-full, explaining why the 1451 event is excluded from consideration. Our calculation of the 1142 eclipse, on the other hand, shows that not only was it total but its central track fell almost precisely over Ganondagan and central New York. In other words, the cup was overflowing its brim.

There is no possible dispute concerning the remainder of our eclipse descriptions in Table II or our maps of eclipse paths shown on Maps I and II. Both the old Julian and modern Gregorian calendar dates are supplied for Table II. Although the Julian calendar was in effect in Europe on the cited dates, the Gregorian calendar reflects the actual time of year for an agricultural society.

Maps I and II show the respective central tracks of the eight eclipses. Based upon the central tracks, time of day, eclipse type, and duration, it is clear that only two candidates emerge as possibilities, eclipses F/f and H/h.

Eclipse A/a, Wallace's famed 1451 eclipse, must be tossed out. Although it was a total eclipse, its central track placed it far to the southwest of the ratification council, falling somewhere in Pennsylvania. If perceived at all, it would have appeared to be a partial, not a total, eclipse from the vantage point of the Ganondagan Council. Even less of a possibility exists for Snow's 1536 eclipse, B/b. Not only was it annular, but its path

TABLE II
Solar Eclipses In the Region of Ganondagan, New York

Central Track	Date (Julian) (Gregorian)	Type	Time	Duration/Comments
A	(28 Jun) 1451 (9 Jul)	Partial	6:00 PM	Excluded: Although this was a total eclipse, its central track fell far to the southwest of the target area. The sky would not have looked dark from Ganondagan.
B	(15 Jun) 1536 (30 Jun)	Partial	6:20 AM	Excluded: This was an annular eclipse with its central track lying far to the southeast of the area of interest. It could not have been seen by anyone in Iroquoia.
C	(28 Aug) 881 (4 Sept)	Annular	7:40 AM	Excluded: This was a moderately long eclipse of four-and-a-half minutes. The sky would not have gotten dark.
D	(10 Sept) 1048 (18 Sept)	Annular	5:20 PM	Excluded: A short-lived eclipse, this one lasted only 20 seconds. The sky would have appeared dusky, but not dark. The central track lies very close to the target area.

TABLE II
Continued

Solar Eclipses in the Region of Ganondagan, New York

Central Track	Date (Julian)	Date (Gregorian)	Type	Time	Duration/Comments
E	(15 Sept) 1308	(25 Sept)	Annular	9:30 AM	Excluded: Although a long eclipse of 5.9 minutes, this one was annular. The sky would not have gotten dark.
F	(17 Jul) 1357	(27 Jul)	Annular	4:20 PM	Excluded: This eclipse lasted only half a minute. The sky would have become dusky, but not dark. The central track lies slightly north of the target area.
G	(20 Jul) 985	(27 Jul)	Total	7:30 AM	Excluded: This was a short-lived eclipse with darkness lasting only for 50 seconds. The central track lies south of the target area.
H	(22 Aug) 1142	(31 Aug)	Total	3:20 PM	Selected: A total eclipse of three-and-a-half minutes, a long duration. This one had a broad central track that easily covers the target area.

fell as far to the southeast as Wallace's did to the southwest of Iroquoia. It would simply not have been visible. Scientifically speaking, neither of these two eclipses would have been considered had it not been for their notoriety.

Let us now turn to the eclipses that do make the first, but not the second, scientific cut. Eclipse C/c was an annular eclipse that occurred in the early morning, both of which circumstances disqualify it. Although the central track of Eclipse D/d ran close to our target area, it is disqualified as an annular eclipse. Furthermore, being of extremely short duration, D/d would not have been dramatic enough to garner much attention. Eclipse E/e is likewise disqualified on the basis of its annularity. Furthermore, E/e occurred at the wrong time of day. Eclipse G/g is likewise dismissed due to its morning timing; moreover, its central track lay south of the target area.

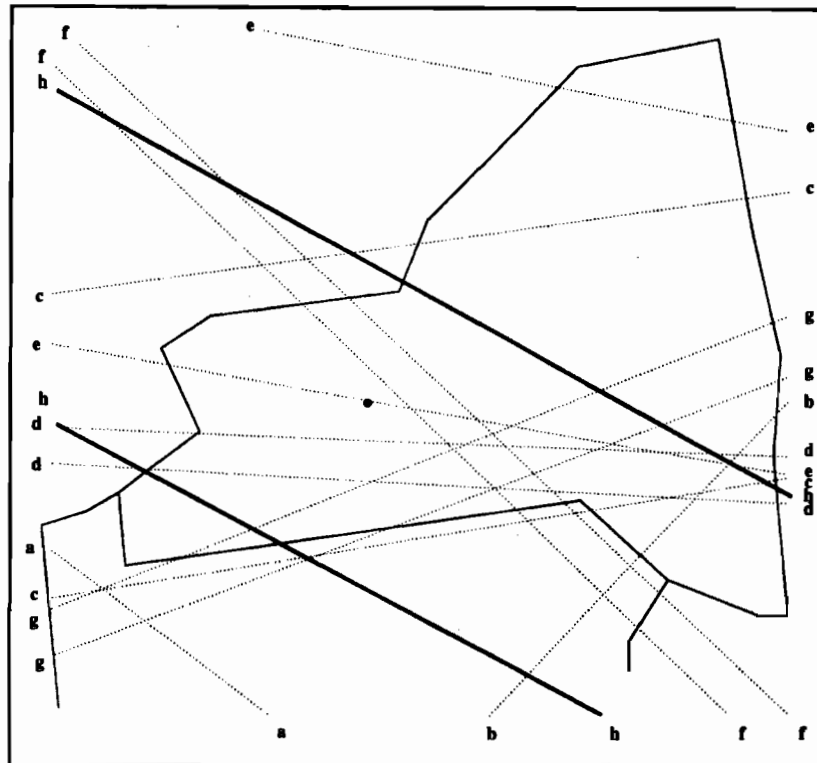
This leaves eclipses F/f and H/h. F/f, the eclipse of 1357, occurred at the right time of day and just slightly north of our target area. It was, however, an annular eclipse that would not have darkened the sky. The narrowness of its track made it even less likely to have garnered general attention.

The only eclipse that meets all requisite conditions—an early afternoon occurrence that darkened the sky over Ganondagan, Onondaga, and central New York generally—is H/h, the eclipse of 1142. Its central track easily covered the heart of *both* capitals, that at Ganondagan and that at Onondaga, while calculations show that the duration of darkness was a dramatic three-and-a-half minute interval, from 3:20 to 3:24 P.M., long enough to wait for the sun, long enough to impress everyone with Deganawida's power to call forth a sign in the sky.

CONCLUSION

It is rare enough when archeology and oral tradition agree. But when archeology, oral tradition, historical records, and astronomical science *all* point to the same date, August 31, 1142, a significant mass of evidence is before us. In view of the facts and arguments marshaled in this paper, we respectfully submit that the founding of the League of the Haudenosaunee is shown to have occurred just as the corn was being gathered, on the pleasant afternoon of August 31 in the year 1142 of the Common Era.

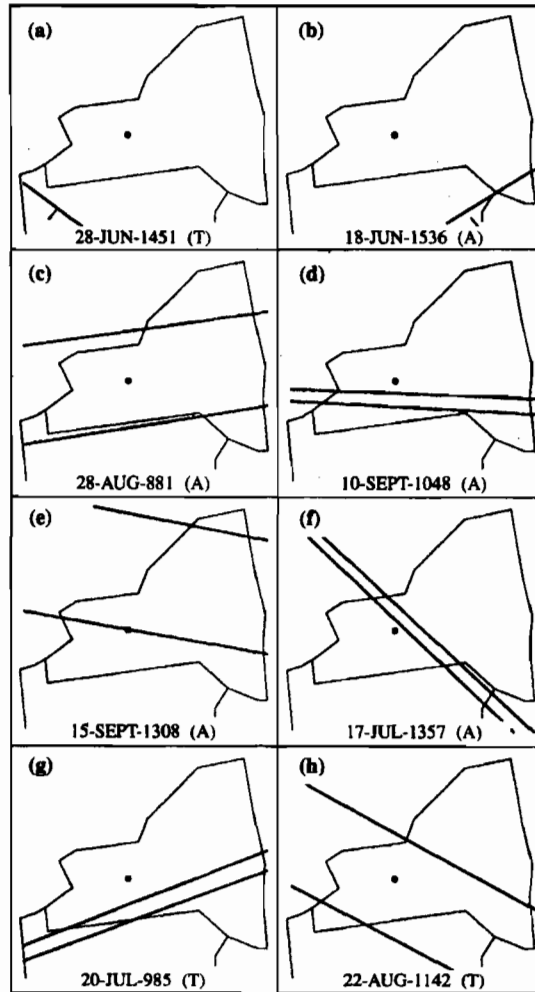
CENTRAL TRACK MAP I



MAP I

Map I provides a direct and simultaneous comparison of the central tracks of all the eclipses considered in Map II. The bullet indicates Ganondagan with lowercase letters **a, b, c, d, e, f, g,** and **h** corresponding to their uppercase counterparts in Table II. In Map I, the lowercase letters appear in pairs, left and right, connected by dotted or solid lines. The central track of each eclipse falls between the two lines of its letters. The lines for eclipse **h** are solid. The lines for all other eclipses are dotted. Once more, it is obvious that eclipse **h** is the prime candidate.

CENTRAL TRACK MAP II



MAP II

Map II graphically displays the central track of each eclipse, one by one. In each box, the bullet indicates Ganondagan while the area between the solid lines defines the ground space affected by the eclipse. The parenthetical (A) and (T) following the dates stand for "Annular" and "Total," respectively. The lowercase letters a, b, c, d, e, f, g, and h correspond to their uppercase equivalents (A, B, C, D, E, F, G, and H) on Table II.

Eclipses **a** and **b** are immediately excluded from consideration because their paths lay completely out of the target area. The northernmost edge of **a**, falling far to the southwest, did not even fall in New York, while the northernmost edge of **b** barely intruded on the southeastern tail of New York. The southernmost edges of both **a** and **b** lie so far out of Iroquoia as not even to appear on these maps. Neither eclipse **a** nor **b** would have been visible in Iroquoia.

Regarding eclipses **c** through **h**, the central track alone does not necessarily indicate an observable eclipse. The type of eclipse must also be considered. Because of their annularity, **c**, **d**, and **e** are not actually candidates; the sky did not darken. Although occurring during the right time of day and year, eclipse **f** would not have darkened the sky either. These eclipses would not have been obvious to a non-scientist.

Eclipses **g** and **h** remain as candidates. Eclipse **g** presents an interesting possibility, except that it was of short duration, occurred at the wrong time of day, and, most importantly, its central track was quite narrow and lay well south of the target area. This leaves eclipse **h**, whose totality, long duration, and wide central track would have made it impossible for any reasonably observant person standing on the ground in the target area to have missed the eclipse.

NOTES

1. *Haudenosaunee* is a popular, if not linguistically precise, rendering of "the people of the completed longhouse," i.e., the League. It is, for example, *Rotinonshón:ni* in Mohawk; there are several other dialect renderings. *Haudenosaunee* is only used here as a convenient and fairly well-known rendering.

2. Dean R. Snow, "Dating the Emergence of the League of the Iroquois: A Reconsideration of the Documentary Evidence," *A Beautiful and Fruitful Place: Selected Rensselaerswijck Seminar Papers*, ed. Nancy Anne McClure Zeller (Rensselaerswijck: New Netherlands Publishing, 1991): 139-143.

3. Paul A. W. Wallace, "The Return of Hiawatha," *Quarterly Journal of the New York State Historical Association*, 29.4 (1948): 400.

4. Although this discussion does occur in *Forgotten Founders*, a more complete discussion appears in the dissertation from which *Forgotten Founders* was extracted for publication. Bruce Johansen, *Forgotten Founders: Benjamin Franklin, the Iroquois and the Rationale for the American Revolution* (Ofipswich, MA: Gambit Incorporated, Publishers, 1982), 21-22; Bruce Elliot Johansen, *Franklin, Jefferson and American Indians: A Study in the Cross-Cultural Communication of Ideas*, Ph.D. diss. (University of Washington, 1979), 44-45.

5. For instance, see William Engelbrecht, "New York Iroquois Political Development," *Cultures in Contact: The Impact of European Contacts on Native American Cultural Institutions, A.D. 1000-1800*, Anthropological Society of Washington Series, ed. William W. Fitzhugh (Washington, D.C.: Smithsonian Institution Press, 1985), 165; Daniel K. Richter, *The Ordeal of the Longhouse: The Peoples of the Iroquois League in the Era of European Colonization* (Chapel Hill: The University of North Carolina Press, 1992), 31; Dean R. Snow, *The Iroquois* (Cambridge: Blackwell Publishers, 1994), 52, 55.

6. Princess Point is located on the western peninsula of Ontario, bordered on the south by western Lake Erie, on the northwest by Lake St. Claire, and on the extreme north by the tip of Lake Huron. See map, David Marvyn Stothers, *The Princess Point Complex*, Archeological Survey of Canada, Mercury Series Paper, no. 58 (Ottawa: National Museum of Man, 1977), 27.

7. Stothers, *The Princess Point Complex*, 136.

8. William A. Ritchie, *New Evidence Relating to the Archaic Occupation of New York* (Rochester, NY: Lewis H. Morgan Chapter, 1936); William A. Ritchie, *The Pre-Iroquoian Occupations of New York State* (Rochester: Rochester Museum of Arts and Sciences, 1944); William A. Ritchie, *The Archeology of New York State* (Garden City, NY: The Natural History Press, 1965); William A. Ritchie and Robert E. Funk, *Aboriginal Settlement Patterns in the Northeast*, New York State Museum and Science Service, Memoir, no. 20 (Albany: University of the State of New York and the State Education Department, 1973); Mary Ann Palmer Niemczycki, *The Origin and Development of the Seneca and Cayuga Tribes of New York State*, Research Records, no. 17 (Rochester: Rochester Museum and Science Center, 1984); Susan Prezzano and Vincas Steponaitis, *Excavations at the Boland*

Site, 1984-1987: A Preliminary Report, Research Report, no. 8 (Chapel Hill, NC: Research Laboratories of Anthropology, University of North Carolina, 1990).

9. Pilette is quoting D. R. Snow. Marie-Laure Pilette, "Un dilemme iroquois: combattre pour s'allier et s'allier pour combattre," *Recherches Amérindiennes au Québec* 21.1-2 (1991): 72. This citation of the 1150 date notwithstanding, Pilette is noncommittal concerning the date of the League's founding, noting the usual range of dates put forward.

10. From the French, *hure* for "wild boar's head" (indicating the bristly hairs on it), the slur had been used in France since at least 1358 to derogate peasants. It means "an unkempt person," a "bristly savage," a "wretch or lout," or a "ruffian" and was applied to Iroquois by early French sailors. James Herbert Cranston, *Étienne Brûlé: Immortal Scoundrel* (Toronto: Ryerson Press, 1949), 48-49.

11. Paul A. W. Wallace, *The White Roots of Peace*, Empire State Historical Publication Series, no. 56 (Port Washington, Long Island, NY: Ira J. Friedman, Inc., 1946), 44, 48.

12. Expansionism as the Iroquois peace method—the premise of Pilette's fine article—is neatly summed up when Pilette observes: "*La paix iroquoise est donc conçue en termes d'expansionnisme et n'exclut pas de ce fait le conflit armé, ce qui sera confirmé par the assimilation des Tuscaroras en 1622...et d'une partie des Mohicans par les Mohawks en 1628.*" "The Pax Iroquoia is then conceived of in terms of expansionism, and does not exclude the fact of armed conflict, which will be confirmed by the assimilation of the Tuscaroras in 1622 and one group of the Mohicans by the Mohawks in 1628" (B. Mann's translation), Pilette, "Un dilemme iroquois," 73. Unless Pilette knows something the authors do not (a possibility), we take the 1622 date for Tuscarora incorporation as a typographical error. The Tuscarora did not join the League until circa 1722.

13. Just because Native American trade was not mercantile does not mean that the result was not international communication. In his excellent article, "Trading in Metaphors," George R. Hamell notes the importance of the international, "ornamental" goods trade, which had a meaning quite prior to, and independent of, European trade. George R. Hamell, "Trading in Metaphors: The Magic of Beads, Another Perspective Upon Indian-European Contact in Northeastern North America," *Proceedings of the 1982 Glass Trade Bead Conference*, ed. Charles F. Hayes III, Arthur C. Parker Fund for Iroquois Research, Research Records, no. 16 (Rochester: Research Division of the Rochester Museum and Science Center, 1983), 17-18; Jake Thomas notes that various groups understood each other's languages and that they also used sign language. He adds that, "The Iroquois had a union before white contact—coast to coast on Turtle Island—trade and commerce." Jake Thomas, letter to Barbara Mann, February 12, 1997.

14. Denys Delage, *Le Pays Renversé: Amérindiens et Européens en Amérique du Nord-Est, 1600-1664* (Montreal: Boreal Express, 1985), 65-66.

15. Cartier historian Ramsay Cook states, "In fact, by 1534, trade between Europeans—Bretons, Basques, English, and other people who lived and fished

on the Atlantic seaboard—had a history of several decades, possibly beginning before Columbus.” Jacques Cartier, *The Voyages of Jacques Cartier*, Introduction by Ramsay Cook (Toronto, Buffalo and London: University of Toronto Press, 1993), xxi. Bruce Trigger adds that “it would be wrong to assume that [the St. Laurentian Iroquois of 1534] had no knowledge of Europeans and had not already been receiving at least small quantities of European goods.” Bruce G. Trigger, *Natives and Newcomers: Canada's "Heroic Age" Reconsidered* (Kingston and Montreal: McGill-Queen's University Press, 1985), 130.

16. Verrazane (Verrazano) historian Jacques Habert points out that Natives registered contempt, not surprise, upon seeing Verrazane's French crew—not first-contact behavior. Habert accounts for this surprising state of affairs by concluding that these Natives had encountered Portuguese sailors prior to Verrazane's 1524 voyage, as a consequence of previous, documented fishing journeys to New England. Verrazane also recorded that Native Americans already knew the difference between high-quality trade goods like knives and fish hooks, and low-value baubles like toy bells. Jacques Habert, *La vie et les voyages de Jean de Verrazane* (Ottawa, Canada: Le Cercle du Livre de France, 1964), 138.

17. Habert, *La vie et les voyages*, 143-144.

18. “Si nous désirons troquer quelque chose avec ces gens, ils venaient au rivage et se tenaient sur quelques pierres ou la mer se brisait avec le plus de violence. Nous demeurions dans la chaloupe: ils nous envoyaient, au moyen d'une corde, ce qu'ils acceptaient de nous donner, tout en criant sans cesse que nous ne nous approchions pas.” “If we desired to barter something with these people, they came to the beach and waited on some rocks where the waves broke most violently. We stayed in the longboat: they sent us, by means of a cord, whatever they were willing to give us, while shouting all along that we should not come any closer” (translation, B. Mann.) Habert, *La vie et les voyages*, 138.

19. For instance, on his second voyage, Cartier and his men spread a lethal illness among the Iroquois. Cartier, *The Voyages*, 79-80. Explorers, by the way, only mentioned illnesses that ravaged themselves, skimming over stray infections that leveled entire Native villages, an event sure to be remembered by their hapless hosts, if not by the Europeans. Henry Dobyns' extensive study of the types of diseases that ravaged Native peoples shows that the Haudenosaunee, Wyandot, and Laurentian nations suffered and died mainly from smallpox, measles, and influenza. Henry F. Dobyns, *Their Number Become Thinned: Native American Population Dynamics in Eastern North America*, including an essay with William R. Swagerty as coauthor (Knoxville: University of Tennessee Press, 1983), 15, 17, 19.

20. Habert, *La vie et les voyages*, 138-139.

21. Cartier was unlikely to have been the first European the Laurentians had seen. Cook, “Introduction,” *The Voyages of Jacques Cartier*, xxi.

22. Cartier, *The Voyages of Jacques Cartier*, for irresponsible hunting, 14; for terrorization, 54; for fortification, 102.

23. For hostage-taking generally, see Cook, “Introduction,” *The Voyages of*

Jacques Cartier, xii, xxvi; and Trigger, *Natives and Newcomers*, 130; for the kidnapping of Donnacona, see Cartier, *The Voyages of Jacques Cartier*, 84-85.

24. Trigger, *Natives and Newcomers*, 303.

25. Cartier, *The Voyages of Jacques Cartier*, 96-113; Trigger, *Natives and Newcomers*, 133-134.

26. Once more, "Hiawatha" is a popular rendering of a word more correctly presented linguistically as, for example, *Haienwátha* in Mohawk.

27. Although many seem unaware of it, some traditions recount that the Peacemaker made offers of membership to the Adirhondaks, Cherokee, Wyandot, Neutrals, Erie, Delaware, and others. Parker, *Constitution of the Five Nations*, footnote 3, 79-80. Portions of some nations, like the Wyandot of Ohio, accepted the offer much later on and were adopted in. Scholars still call this Ohio Western Door faction the *Mingo*, hopefully because they do not know what it means. *Mingo* was an anti-League slur originated by the tiny Delaware-Mahican faction that converted to the Moravian religion. From the Algonquian word *mengwe* for "stealthy," *Mingo* means "the sneaky people." John Heckewelder, *Thirty Thousand Miles with John Heckewelder*, ed. Paul A. W. Wallace (Pittsburgh: University of Pittsburgh Press, 1958), 425.

28. A. C. Parker, *The Constitution of the Five Nations or, The Iroquois Book of the Great Law*, New York State Museum Bulletin, no. 184 (Albany: University of the State of New York, 1916), 103.

29. Elisabeth Tooker, "The United States Constitution and the Iroquois League," *Ethnohistory* 35.4 (1988): 305.

30. Elisabeth Tooker, "The League of the Iroquois: Its History, Politics, and Ritual," *Handbook of North American Indians*, vol. 15, *Northeast*, vol. ed. Bruce G. Trigger (Washington, D.C.: Smithsonian Institution of Washington, 1978), 420. Despite the fact that in this article she included mention of authors who suggested slightly earlier founding dates for the League (420-422), the range of dates still falls between 1451 and the mid-sixteenth century. Tooker herself advocates the mid-sixteenth century claim and quotes Hewitt's contention, unsupported by any evidence or argument, that tradition is "unreliable" (421).

31. Wallace, "The Return of Hiawatha," 398-399.

32. Reuben Gold Thwaites, ed. and trans., *Les Relations des Jésuites, or The Jesuit Relations: Travels and Explorations of the Jesuit Missionaries in New France, 1610-1791*, vol. 41 (New York: Pageant Book Company, 1959), 86-87.

33. Thwaites, *Les Relations des Jésuites*, vol. 64, 100-101.

34. Parker, *The Constitution of the Five Nations*, 7.

35. Wallace, *White Roots of Peace*, vii.

36. Paul A. W. Wallace, "Cooper's Indians," *James Fenimore Cooper: A Re-appraisal* (Cooperstown, NY: New York State Historical Association, 1954), 74.

37. Christopher Vecsey, "The Story and Structure of the Iroquois Confederacy," *Journal of the American Academy of Religion* 54.1 (1986): 104.

38. Wallace, *White Roots of Peace*, viii.

39. Vecsey, "The Story and Structure of the Iroquois Confederacy," 79.

40. Wallace, *White Roots of Peace*, vii.

41. Vecsey, "The Story and Structure of the Iroquois Confederacy," 102.
42. John Arthur Gibson, *The Iroquois League Tradition as Dictated in Onondaga*, ed. and trans. Hanni Woodbury in collaboration with Reg Henry and Harry Webster, on the basis of A.A. Goldenweiser's Manuscript, Memoir 9 (Algonquian and Iroquoian Linguistics, 1992).
43. Parker, *The Constitution of the Five Nations*, 61.
44. Quoted in Vecsey, "The Story and Structure of the Iroquois Confederacy," 81.
45. Wallace, "The Return of Hiawatha," 399.
46. John Kahionhes Fadden, Director, Six Nations Indian Museum, Onchiota, New York, letter to Barbara Mann, 9 October 1994.
47. Helen Addison Howard, "Hiawatha: Co-Founder of an Indian United Nations," *Journal of the West* 10.3 (1971): footnote 1, 428.
48. Chief Jake Swamp, Tree of Peace Society, Mohawk Nation, letter to Barbara Mann, 10 November 1994.
49. Jacob E. Thomas, Jake Thomas Learning Center, letter to Barbara Mann, 10 December, 1996.
50. Johansen, *Forgotten Founders*, 21.
51. J. Thomas, letter to B. Mann, 10 December 1996.
52. J. Swamp, letter to B. Mann, 10 November 1994. The death of Leon Shenandoah in July 1996, necessitated the ascension of a new Adodarho. However, these calculations were performed prior to his death, using data up to 1995.
53. Howard, "Hiawatha," footnote 1, 428.
54. Cartier, "How Our People Set Up a Large Cross on the Point at the Mouth of This Harbour...," *The Voyages of Jacques Cartier*, 26.
55. Donald A. Grinde, Jr., and Bruce E. Johansen, *Exemplar of Liberty* (University of California at Los Angeles: American Indian Studies Center, 1991), footnote 30, 260-261. The authors' purpose in their note is merely to reconsider the anthropological strategy of "upstreaming" information. For our purposes, we note that what anthropologist William Fenton called the "Condolence Cane" in 1940 does not necessarily equate to Lafitau's 1724 "stick of enlistment," which seemed to have tallied up office holders. Fenton's Cane is simply a mnemonic device for recalling offices, not for counting office holders. Moreover, according to Jake Thomas, Fenton's Condolence Cane is a fairly recent invention, having only come into being circa 1800. J. Thomas, letter to B. Mann, February 12, 1997.
56. J. Swamp, letter to B. Mann, 10 November 1994.
57. J. Thomas, letter to B. Mann, 10 December 1996.
58. Vecsey, "The Story and Structure of the Iroquois Confederacy," 81-82.
59. In their conclusion, Ritchie and Funk suggest that, while "[t]here was no 'real' explosion" in the earliest Owasco settlements, growth trends "are best explained as resulting from the introduction of maize horticulture." Ritchie and Funk, *Aboriginal Settlement Patterns in the Northeast*, for Roundtop, 186, 193; for the Bates site (along the Chenango River), 236; for quotation, 359.

60. Ritchie and Funk, *Aboriginal Settlement Patterns in the Northeast*, 120-121.
61. Stothers, *The Princess Point Complex*, 115.
62. *Ibid.*, 116.
63. C.M. Barbeau phoneticized her name as *Tse'sta*, after a Wyandot dialect. C.M. Barbeau, "Supernatural Beings of the Huron and Wyandot," *American Anthropologist* 16.2 (1914): 292. In a later piece, Barbeau re-rendered it *Tsě'stá*. C.M. Barbeau, *Huron and Wyandot Mythology*, Anthropological Series, Memoir 80, no. 11 (Ottawa: Government Printing Bureau, 1915), 45.
64. In Laurentian, the word *ozi7zi*, written *ozisy*, *osizy*, or *osizi*, with an underlying morphological structure of *si7si[-a7]*, means "corn." In Seneca, the word *odzi7dzo:t*, with an underlying morphological structure of *ci7ci-ot*, means "corn tassel." In Wyandot ("Huron"), the word *otsi7tsa7*, written *otsitsa*, with an underlying morphological structure of *ci7ci-a7*, means "flower," and relates to corn. In Cherokee, the word *udji:djadá*, with an underlying morphological structure of *çi:ç-at-a*, means "corn tassel." The underlying morphological structures in Onondaga, Mohawk, and Tuscarora (*çi7çi-a7*, *çi7çi-a7*, and *çi7çi-hsn-e*, respectively) all spring from the same root word related to corn. Roy Wright, "Semantic Roots of Iroquoian Corn," *Indian Corn of the Americas: Gift to the World*, Cultural Encounter Series, ed. Jose Barreiro, no. 2, *Akwe:kon* 56.3/4 (1989): 75. Jake Thomas notes that in Mohawk, *otsitsa* means "fire," and that Sky Woman's name is often rendered as "Mature Flowers." Jacob E. Thomas, Jake Thomas Learning Centre, letter to B. Mann, 12 February 1997.
65. Trigger, *Natives and Newcomers*, 97.
66. Stothers, *The Princess Point Complex*, 164.
67. Jose Barreiro, "A Season of Corn," *Indian Corn of the Americas: Gift to the World*, Cultural Encounter Series, ed. Jose Barreiro, no. 2, *Akwe:kon* 56.3/4 (1989): 11.
68. Pete Jemison, "Mother of Nations: The Peace Queen, A Neglected Tradition," *Akwe:kon* (1988): 69.
69. "Bold woman, you!" an enemy rebuked the Corn Mother. "Strange woman," he continued, "who welcomed you?" Arthur C. Parker (Gawaso Wanneh), "The Maize Maiden," *Rumbling Wings and Other Indian Tales* (Garden City, New York: Doubleday, Doran & Company, Inc., 1928), 186.
70. Ritchie, *The Pre-Iroquoian Occupations of New York State*, for Owasco generally, 46, 327; for palisades at Castle Creek, 67; for palisades at Canandaigua, 52, 76.
71. Susan Prezzano and Vincas Steponaitis, *Excavations at the Boland Site, 1984-1987: A Preliminary Report*, Research Report, no. 8 (Chapel Hill, NC: Research Laboratories of Anthropology, University of North Carolina, 1990).
72. Ritchie and Funk, *Aboriginal Settlement Patterns in the Northeast*, 229-230; 236.
73. J. Thomas, letter to B. Mann, December 10, 1996.
74. Parker, *The Constitution of the Five Nations*, 72-73.
75. *Ibid.*, 76.
76. *Ibid.*, 83.

77. Ibid., footnote 2, 67.
78. Ibid., 76.
79. Gibson, *Concerning the League*, 192.
80. Ibid., 196.
81. A. C. Parker, "Her Word Was Law," *Akwe:kon* (1988): 70.
82. See, for example, Ritchie, *New Evidence Relating to the Archaic Occupation of New York, The Pre-Iroquoian Occupations of New York State, The Archeology of New York State* and, with Funk, *Aboriginal Settlement Patterns in the Northeast* (full citations in note 8).
83. Ritchie, *The Archeology of New York State*, 293.
84. Ritchie, *Pre-Iroquoian Occupations*, 307.
85. Trigger, *Natives and Newcomers*, 86-87.
86. Although early Europeans regularly, and sometimes even hysterically, mentioned Haudenosaunee "petticoat government," few modern discussions exist on women's high political position in traditional society. Jesuit missionaries expended considerable time and energy trying to destroy women's power, as can be traced in the *Jésuit Relations*. For a fascinating—and disturbing—look at the misogynist impulse animating Christian missions, as evidenced in the *Jésuit Relations*, see Karen L. Anderson, *Chain Her By One Foot: The Subjugation of Women in Seventeenth Century New France* (New York: Routledge, 1991). In *The Ordeal of the Longhouse*, Daniel Richter provides a glimpse of women's ability to call for adoptees as a motivating factor in "mourning wars" (full citation in note 5), but the period he documents occurred post-conquest and in reaction to its devastating demographic effects. Martha Foster inquires into the history of Haudenosaunee women, but offers her discussion as a corrective to historical oblivion without providing an alternative description of women's power. Martha Harroun Foster, "Lost Women of the Matriarchy: Iroquois Women in the Historical Literature," *American Indian Culture and Research Journal* 19.3 (1995): 121-140. Paul A.W. Wallace offers one of the rare academic treatments of women's high status in traditional society, beginning with the accurate statement that "Living in a matriarchal society, Iroquois women had their own council fires, as the men had" (72) and concluding with the equally accurate observation that "white men taught them [Iroquois men] to be ashamed of the word [woman]" (77). Part of a much larger discussion, the purpose of his all-too-brief synopsis was to explain how the high ceremonial concept of "woman" was gradually debased into an insult between the eighteenth and nineteenth centuries through European cultural influence. Wallace, "Cooper's Indians," for quotations, 72, 77; for status, *passim*, 72-78 (full citation in note 36).
87. Joseph François Lafitau, *Customs of the American Indians Compared with the Customs of Primitive Times*, 1724, ed. and trans. William N. Fenton and Elizabeth L. Moore (Toronto: The Champlain Society, 1974), 69.
88. Parker, *The Constitution of the Five Nations*, footnote 1, 90.
89. Nancy Bonvillain, "Iroquoian Women," *Studies on Iroquoian Culture*, Occasional Publications in Northeastern Anthropology, ed. Nancy Bonvillain, no. 6 (Rindge, NH: Department of Anthropology, Franklin Pierce College,

1980), 53-57.

90. Many sources document women's control of food (including all that was taken by men in the hunt) and agriculture, but for a solid synopsis see Bonvillain, "Iroquoian Women," 50.

91. This is a matter deeply embedded in Haudenosaunee law. See Parker, *The Constitution of the Five Nations*, 42.

92. Lafitau, *Customs of the American Indians*, 69; Bonvillain, "Iroquoian Women," 51-52.

93. Marie-Laure Pilette, "Oeuvre de chair: La petite histoire du pic mangeur d'hommes," *Anthropologica* 35.1 (1993): 39-57.

94. Pilette, "Oeuvre de chair," subsection "Le cadre sémantique: le sablier iroquois," 44-47. Although the hourglass is not quite accurate once we move from story to principle—an hourglass would seem to posit the relationship of the reciprocating halves as sequential whereas reciprocity is simultaneous—Pilette's excellent exposition of the principle of reversal and repetition as the relational model of the male-female halves is right on the money. Caution is advised concerning her unspoken assumption that men and women *must* be churlishly competing rivals, a Euro-concept that has little application to the Haudenosaunee for whom respect, not hostility, describes the traditional relationship between the sexes. Nevertheless, her insights into marriage as symbolic cannibalism of the exogamous male are not only witty and imaginative, but astute.

95. Pilette, "Oeuvre de chair," 53.

96. *Ibid.*, 51.

97. Parker, "The Maize Maiden," 179.

98. Jake Thomas, telephone conversation with Barbara Mann, 5 April 1997.

99. Parker, "The Maize Maiden," 180.

100. Black Lynx flings the Corn Maiden and Corn Tassel into the fire. In this allegory, "Corn" names both the grain and its human Cultivators and Guardians. Parker intends a *double entendre* regarding cannibalism, which he underlines by describing human flesh as "meal," singed in the fire. Parker, "The Maize Maiden," 189.

101. *Ibid.*, 188-189, 191.

102. Trigger, *Natives and Newcomers*, 96.

103. Pilette, "Un dilemme iroquois," 72 (translation, B. Mann).

104. J. Thomas, personal communication, B. Mann, 5 April 1997. Parker also makes this clear in his "Maize Maiden" story.

105. "Adodarhoh was the name of the evil man," Newhouse says. Parker, *The Constitution of the Five Nations*, 17.

106. Wallace, *White Roots of Peace*, 16.

107. Wallace, "The Return of Hiawatha," 393.

108. J. Thomas, personal communication, B. Mann, 5 April 1997.

109. Parker, *The Constitution of the Five Nations*, 17.

110. "Adodarho, head chief of that Nation [Onondaga], whom Deganawidah [Deganawida] already understood to be the principal obstacle

lying across this path." Wallace, "The Return of Hiawatha," 393.

111. Parker, *The Constitution of the Five Nations*, 67.

112. Wallace, *White Roots of Peace*, 15; Parker, *The Constitution of the Five Nations*, 69.

113. Wallace, *White Roots of Peace*, 15.

114. Wallace, "The Return of Hiawatha," 392; Vecsey, "The Story and Structure of the Iroquois Confederacy," 84. The supposed "confusion"—between Hiawatha and Adodarho—is actually a misinterpretation by Euro-scholars who, working in the either-or mindset of the West, decided that the cannibal must be either Hiawatha or Adodarho. In the both-and mindset of tradition, this included both Hiawatha and Adodarho as often as not. Divergent traditions do not signal errors but alternate renditions, each of which is true. The trick is not to figure out which one version of tradition is "correct" to the exclusion of all others. All traditions are simultaneously correct. The trick is to know which Keepers are authentic and which are merely "informants" of Euro-scholars who too often depend upon whomever they can coax into talking to them, regardless of how that "informant" is perceived by peers. This was an especially acute problem in the nineteenth and early twentieth centuries, meaning that judgment must be exercised today in determining how much credence to place in which primary sources. Just being old and Indian did not make someone a peer-recognized Keeper.

115. Wallace, "The Return of Hiawatha," 392-393; Gibson, *Concerning the League*, 78-89.

116. Wallace, *White Roots of Peace*, 16.

117. "[D]eer's antlers shall be placed on" the heads of chiefs, Deganawida tells Hiawatha at his conversion feast. "Great men shall wear the antlers of authority," Wallace, *White Roots of Peace*, 16. "I now place antlers on your head as an emblem of your power," Deganawida said, as he appointed the first sachems. Parker, *The Constitution of the Five Nations*, 29; 95. Deganawida tells the people that "their strength came from the meat of the deer." Parker, *The Constitution of the Five Nations*, 25. At this stage, we ought to bear in mind the League tradition that Deganawida sent runners to invite the Cherokee to join his League. Parker, *The Constitution of the Five Nations*, footnote 3, 79-80. It was a step that symbolized a return to the paths of Little Deer, a trail that they had once walked with their southern cousins. Anthropologists and linguists have confirmed that the Cherokee and the Haudenosaunee have ancient ties, separating, linguistically anyway, "between 3,500 and 4,000 years ago." Trigger, *Natives and Newcomers*, 63, 82. *Ahw'usti*, or "Little Deer," plays a revered role in Cherokee cosmology, which also features a Corn Mother, Selu. *Ahw'usti* fed the people in return for their feeding him. Marilou Awiakta, *Selu: Seeking the Corn-Mother's Wisdom*, illus. Mary Adair (Golden, Colorado: Fulcrum Publishing, 1993), 28-29.

118. Pilette, "Un dilemme iroquois," 74-76. Pilette correctly observes, "*Le cannibalisme des Iroquois, strictement pratiqué sur les étrangers (exocannibalisme) conjugueraient à la fois une assimilation physique intégrale et radicale de l'étranger et une*

disparition temporaire de la peur de ces étrangers (on mange symboliquement sa peur de l'ennemi en mangeant le corps de l'ennemi). En cela, les pratiques cannibales n'ont sans doute fait que traduire la situation continuelle de crise où a été enfermée la volonté d'assimilation, d'alliance et d'expansionisme de la Ligue." ("Iroquoian cannibalism, strictly practiced on outsiders [exocannibalism] would simultaneously conjure up an integrally physical and radical assimilation of the foreigner and a temporary dissipation of fear of these strangers [one symbolically consumes one's fear of the enemy in eating his corpse]. Thus, cannibalistic practices have without doubt transformed the constant situation of crisis wherein there has been a failure of voluntary assimilation, alliance and League expansion.") Pilette, "Un dilemme iroquois," trans. B. Mann, 75.

119. Pilette remarks on "le crachat étant doté de pouvoir chez les Iroquois" ("spittle having magic power for the Iroquois"), as does "en faisant rire" ("making [someone] laugh"). Pilette, "Oeuvre de chair," translation, B. Mann, 50.

120. Pilette makes this point at persuasive length in her excellent article, "Un dilemme iroquois," capping off her discussion with the quoted conclusion. Pilette, "Un dilemme iroquois," trans. B. Mann, 74.

121. The fifteen ancient clans are listed in the Seth Newhouse tradition. The more modern clans named in the Chiefs' version still glaringly omit the Snakes. Parker, *The Constitution of the Five Nations*, 42, 93-95. Jake Thomas notes that the Eel Clan, still extant, is sometimes confused with the concept of "snake clan," but is intended to indicate the fish called "eel." (Two types of eels are "snake eels" and "snipe eels.") Thomas also points out that the "Ball" clan referred to the small deer, which would camouflage itself by rolling itself up into a ball to hide among the rocks. J. Thomas, personal communication, B. Mann, 5 April 1997. The original clans are not to be confused with the modern eight clans. The "static savage" stereotype notwithstanding, it is rapid cultural change, not mindless repetition since time out of mind, that characterizes Native society. Trigger, *Natives and Newcomers*, 6. Annemarie Shimony provides a long and detailed look at the true fluidity of clans, rightly cautioning, "The population and the clans represented are not identical over time." Annemarie Anrod Shimony, *Conservatism among the Iroquois at the Six Nations Reserve*, 1961, reprint, Yale University Publications in Anthropology, no. 65 (Syracuse: Syracuse University Press, 1994), quotation, 51; entire discussion, 51-59.

122. Lafitau, *Customs of the American Indians*, 251.

123. John Heckewelder, *The History, Customs, and Manners of the Indian Nations Who Once Inhabited Pennsylvania and Neighbouring States*, 1818, new and revised edition with an introduction and notes by William C. Reichel (Philadelphia: Publication Fund of the Historical Society of Pennsylvania, 1876), 247.

124. Wallace, "The Return of Hiawatha," 390.

125. Vecsey, "The Story and Structure of the Iroquois Confederacy," 83.

126. J. Thomas, letter to B. Mann, 10 December 1996.

127. Wallace, "The Return of Hiawatha," 390.

128. Vecsey, "The Story and Structure of the Iroquois Confederacy," 90, 91.

129. *Ibid.*, 90.

130. Vecsey, "The Story and Structure of the Iroquois Confederacy," 92. Jake Thomas does not accept the tradition of Adodarho and Hiawatha as "half-brothers," although he does see the Sky-era Flint and Sapling as each other's complementary "half." J. Thomas, Letter to B. Mann, 12 February 1997.

131. For one Native version of Sky Woman and her daughter, see "The Mohawk Creation Story" *Akwesasne Notes*, 21.5 (1989): 32-29.

132. Vecsey, "The Story and Structure of the Iroquois Confederacy," 83.

133. For the "Grandmother" connection, see Parker, *The Constitution of the Five Nations*, 14; and Wallace, *White Roots of Peace*, 11. For his supernatural birth, see Parker, *The Constitution of the Five Nations*, 65; and Wallace, *White Roots of Peace*, 11. For first Tarachiawagon, as the "great spirit" also called "Holder of the Heavens," see Paul A.W. Wallace, *Conrad Weiser, 1696-1760: Friend of Colonist and Mohawk*, 1945 (New York: Russell & Russell, 1971) 20. For the white stone canoe connection, see Wallace, *White Roots of Peace*, 11-12; and Wallace, "Return of Hiawatha," 396. For further connection between the first Tarachiawagon and the Sky Holder, see Vecsey, "The Story and Structure of the Iroquois Confederacy," 83.

134. Regarding the colors of Flint and Sapling, *Ioskeha*, Sapling, is "the white one" and Flint, *Tawiscara* is "the dark one." Daniel G. Brinton, *The Myths of the New World: A Treatise on the Symbolism and Mythology of the Red Race of America* (New York: Henry Holt and Company, 1876), 64-65. Concerning Flint's penchant for destroying Sapling's work, see Elisabeth Tooker, ed., *Native North American Spirituality of the Eastern Woodlands: Sacred Myths, Dreams, Visions, Speeches, Healing Formulas, Rituals and Ceremonials* (New York: Paulist Press, 1979), 33.

135. Parker, "The Maize Maiden," 190.

136. Brinton, *The Myths of the New World*, 65.

137. Newhouse directly characterizes Adodarho as "insane," Parker, *The Constitution of the Five Nations*, 17. It should be mentioned that early Euro-ethnographers, especially missionaries, freely substituted "evil" or "wicked" for the actual Native idea of "insane" or "unbalanced," leading modern scholars into the serious error of seeing a good-evil dichotomy, whereas natives were (and still are) positing a momentarily off-balance, yet still reciprocal, relationship that needs only to be brought back into kilter.

138. Wallace, *White Roots of Peace*, 18.

139. *Ibid.*, 17.

140. *Ibid.*, 25.

141. Adodarho is cosmically cross-identified with Tawescare/Flint, to engage in "the struggle" between Deganawida/(Hiawatha)/Sapling and "Tadadaho, the supposed half-brothers who carry out the cosmic drama of Tarenyawagon [Sapling] and Tawiskaron [Flint]" in their League-era incarnations. Vecsey, "The Story and Structure of the Iroquois Confederacy," 92. Note that Tawescare (Flint)/Adodarho is no less a great soul than Tarachiawagon (Sapling)/Deganawida.

142. Vecsey, "The Story and Structure of the Iroquois Confederacy," 92.
143. *Ibid.*, 91.
144. Parker, "Her Word Was Law," 70.
145. *Ibid.*
146. Vecsey, "The Story and Structure of the Iroquois Confederacy," 91.
147. *Ibid.*
148. Wallace, *White Roots of Peace*, 13-14.
149. Gibson, *Concerning the League*, 91.
150. J. Thomas, personal communication, B. Mann, April 5, 1997.
151. John Heckewelder, *Thirty Thousand Miles with John Heckewelder*, ed. Paul A. W. Wallace (Pittsburgh: University of Pittsburgh Press, 1958), 136-137.
152. For Jigonsaseh's negotiations, see Wallace, *White Roots of Peace*, 14; for sections she negotiated, see Parker, "Clans and Consanguinity," *The Constitution of the Five Nations*, 42-44. Vecsey notes that Jigonsaseh was the first to respond to Deganawida, "thus giving clan mothers priority" in the League. Vecsey, "The Story and Structure of the Iroquois Confederacy," 84.
153. Parker, "Her Word Was Law," 70.
154. John Mohawk, "Economic Motivations—An Iroquoian Perspective," *Indian Corn of the Americas: Gift to the World, Cultural Encounter Series*, ed. Jose Barreiro, no. 2, *Akwé:kon* 56.3/4 (1989): 57.
155. Arthur C. Parker, *The History of the Seneca Indians*, 1926, Empire State Historical Publication XLIII (Port Washington, Long Island, NY: Ira J. Friedman, Inc., 1967), 137.
156. Parker, *The Constitution of the Five Nations*, 18.
157. Wallace, *White Roots of Peace*, 20.
158. J. Thomas, letter to B. Mann, February 12, 1997.
159. Parker, *The Constitution of the Five Nations*, 18-19.
160. In this context, the Corn Council's anxiety over a tardy Jigonsaseh takes on a gruesome new meaning, as does a similar nervousness over the late arrival of Hiawatha in Seneca. Parker, *The Constitution of the Five Nations*, 85-86, 88.
161. For seven daughters, see Parker, *The Constitution of the Five Nations*, 17; for three daughters, see Gibson, *Concerning the League*, 134.
162. For deceased as wife, see Wallace, *White Roots of Peace*, 20; for deceased as daughter, see Gibson, *Concerning the League*, 137-138.
163. Wallace, *White Roots of Peace*, 20; Gibson, *Concerning the League*, 138.
164. Parker, *The Constitution of the Five Nations*, 25.
165. *Ibid.*, 25-26.
166. The situation of the Onondaga is reciprocated in mirror image reversal by the situation of the Seneca. This principle of "symétrie inversée" is picked up and expanded upon by Marie-Laure Pilette. Pilette, "Oeuvre de chair," 44-47.
167. Parker, *The Constitution of the Five Nations*, 26.
168. J. K. Fadden, letter to B. Mann, 9 October 1994.
169. Wallace, "The Return of Hiawatha," 399.
170. Stephen Lewandowski, "Three Sisters: An Iroquoian Cultural

Complex," *Indian Corn of the Americas: Gift to the World*, Cultural Encounter Series, ed. Jose Barreiro, no.2, *Akwé:kón* 56.3/4 (1989): 43.

171. Parker, *The Constitution of the Five Nations*, 25.

172. "...the Green Corn ceremony, held in mid-August when the corn reaches the roasting ear stage and other crops are ripe..." William C. Sturtevant, "Oklahoma Seneca-Cayuga," *Handbook of North American Indians*, vol. 15, *Northeast*, vol. ed. Bruce G. Trigger (Washington, D.C.: Smithsonian Institution of Washington, 1978), 541. Fenton places Green Corn "at late summer." William N. Fenton, "The Iroquois in History," *North American Indians in Historical Perspective*, ed. Eleanor B. Leacock and Nancy O. Lurie (New York, Random House, 1971), 135. C.M. Barbeau has it "taking place in August." Barbeau, "Supernatural Beings," 302.

173. Awiakta, *Selu*, 286. Arthur Parker placed the harvest "[i]n the autumn when the corn is ripe." Arthur C. Parker, *Parker on the Iroquois*, New York State Studies, ed. and intro. William N. Fenton (New York: Syracuse University Press, 1968), 31.

174. Dresden W. H. Howard, "The Battle of Fallen Timbers as Told by Chief Kin-jo-i-no," *Northwest Ohio Quarterly* 20.1 (1948): 39.

175. Howard, "The Battle of Fallen Timbers," 38.

176. Parker, *The Constitution of the Five Nations*, 23, 25, 26.

177. Summer, from first planting to Green Corn, was the time of the year reserved for work. For women, that meant agriculture. For men (who hunted in winter), work meant statecraft and Native American-style (forest-based) animal husbandry. "All the world stops work when a good story is told," so storytelling was forbidden "in the summer" as it made people "lazy" so that "scanty crops, lean game and shiftless people resulted." Harriet Maxwell Converse (Ya-ie-wa-noh), *Myths and Legends of the New York State Iroquois*, Education Department Bulletin, Museum Bulletin 125, ed. and annotated by Arthur C. Parker, no. 437 (New York: New York State Museum, 1908), 11. This prohibition on storytelling explains why Kin-jo-i-no and company were storing up their tales until Green Corn, summer's official end, when stories might be told.

178. Arthur C. Parker, *The Code of Handsome Lake, the Seneca Prophet*, New York State Education Department Bulletin, no. 530, Museum Bulletin, no. 163 (Albany: University of the State of New York, 1913), 6.

179. "The Council shall not sit after darkness has set in." Parker, *The Constitution of the Five Nations*, 32. Paul A. W. Wallace suggests that the reason "the Great Council should not be prolonged after nightfall" was pragmatic, to avoid delegate burnout. Wallace, *White Roots of Peace*, 32. Spiritually, it was to avoid the dangers lurking in the darkness of night. J. Thomas, letter to B. Mann, February 12, 1997.

180. Parker, *The Constitution of the Five Nations*, 23, 25.

181. Mohawk, "Economic Motivations," 57, 58.

182. Respectively, those datings may be found in Wallace, *White Roots of Peace*, 3; Parker, *The Constitution of the Five Nations* 61, 1; and Donald Grinde, Jr.,

The Iroquois and the Founding of the American Nation (San Francisco: The Indian Historian Press, 1977), 1.

183. Parker, *The Constitution of the Five Nations*, footnote 3, 74.

184. *Ibid.*, respectively, 45, 26.

185. J. Thomas, letter to B. Mann, 10 December, 1996.

186. Robert R. Newton, *Ancient Astronomical Observations and the Accelerations of the Earth and Moon* (Baltimore: The Johns Hopkins Press, 1968), 36.

187. Fred Espenak, Goddard Spaceflight Center, e-mail to Jerry L. Fields, 5 December, 1994.

188. T. R. Opolzer, *Canon of Solar Eclipses* (Dover, New York: 1962), xii-xxv.

189. "The sun went out in A.D. 258, 664, 1451, 1806, and 1925." Wallace, "Return of Hiawatha," 400. In addition to choosing a most unlikely eclipse candidate (1451), Wallace also jumped directly from the year 664 to 1451, without mentioning any of the intervening eclipses, some of which were likely.

190. Snow, "Dating the Emergence of the League," 143.

191. This comment is not intended as an insult to Snow, but as a wake-up call to academics in general. None of us can reasonably expect to possess expertise in every field; nor should any shame attach to admitting as much. The remedy is not to retreat into ever more exclusionary and specialized fields, but for scholars of all disciplines to open lines of communication, not only with each other, but with the general public. Jared Diamond has recently offered an engaging examination of the problem of scholarly isolation. Jared Diamond, "Kinship with the Stars," *Discover*, Special Issue: The Coming Age of Exploration, 18 (May 1997): 44-49.

192. Snow, *The Iroquois*, 60 (full citation in note 5).

193. F. Espenak, Goddard Spaceflight Center, e-mail to J. Fields, 5 December 1994.