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Tracking the Early History of the Upper Great Lakes Using Anishinaabeg's Histories:

From Ma'iingan (Wolf) to Animosh (Dog)

Colin Elder

The oral traditions of the Anishinaabeg accurately describe the processes which formed the Great Lakes (and the St. Mary's River), the mass extinctions that followed its creation, and adaptations made by animals and people during this time. By using the oral traditions of the Anishinaabeg alongside modern academic methodologies, this article tracks the geographical formation of the Great Lakes through the flood-related histories narrated by the Anishinaabeg. Their histories speak of ecocultural changes to the natural baseline of the region and the effects of climate change on the St. Mary's River stretching back to the Younger Dryas (12,600–11,700 YPB). The way in which the Anishinaabeg link their own history to the creation of the Great Lakes (and the attendant development of Holocene ecology) allows us to track this history through natural shifts, which further illuminates the value of these early histories. Exploring this history through the Anishinaabeg's concept of a "New World" serves as an analytical tool for approaching the early history of the Upper Great Lakes (12,600–7,000 YPB). This concept and source base yields information that is inaccessible through modern sources alone. Accordingly, by exploring the geophilosophical tracks of indigenous oral tradition, we gain important insight into the landscape of the Younger Dryas period and the ethnogenesis of the Anishinaabeg within a new Great Lakes world, as well as a sense of how the early Anishinaabeg populations adapted to the dramatic changes that marked this epoch.¹

The Anishinaabeg's origin story of a "Great Flood" that led to the creation of the Great Lakes points to geographical and ecological changes as the defining influences in the region during this period. Although accounts of the Great Flood vary slightly by telling, the Anishinaabeg's accounts have some important consistencies. Freda Rajotte's book *First Nation Faith and Ecology* (1998) records an account of this Great Flood that explains how:

After the Creator had made the world with all the animals and with the first people, he told Wisakedjak, the Trickster, to take good care of the people, show them how to live, and stop them from quarrelling with each other. However, Wisakedjak delighted in playing tricks upon the animals and the people so that they became angry with each other, quarrelled and fought until the land was red with blood.

The Creator became so angry that he sent a flood to wash the Earth clean again. For many days, the water rose until there was no land to be seen at all. Then Sky Woman fell down from the sky world, holding seeds from the Tree of Light. There was nowhere for her to land as the Earth was covered in water. As she fell, Ducks caught her on their wings, and landed Sky Woman gently in the world of water. When Turtle saw what had happened, she offered her body for Sky Woman's resting place.

Wisakedjak tried in vain to find a small piece of Earth, for he did not have the power to create anything but could expand what already existed. So, he sent down one animal after another to try reach the Earth beneath the flood waters. Otter tried several times but could not reach the bottom. Then Beaver tried, but he too was unable to dive deep enough to reach the land. Finally, little Muskrat dived, down and down into the water, deeper and deeper. When he floated back to the surface he was dead, but clutched tightly between his paws were bits of earth. This earth was spread out over Turtle's back, and became a home for the first mother. There she planted the seeds from the Sky World.²

Focusing on the Anishinaabeg's origin story and their early histories of their world highlights the fundamental importance of water and its role in the birth of the Anishinaabeg, emphasising the maternal connection that they feel toward the Great Lakes.³ As indicated in this passage, the Anishinaabeg viewed their own ethnogenesis as intrinsically linked to the creation of the Great Lakes.

An overarching theme of these testimonies are descriptions of a period of great flooding, mass extinctions, and a sense of the importance of animals and people working together in the creation of a new world in the postflood period. In the Anishinaabeg's historical account, this important flood led to the formation of new geographical features and the settlement of new species. Traditional Anishinaabe histories recorded by Anishinaabe scholar Basil Johnston speak to these changes, describing a time when "earth was a huge unbroken stretch of water whipped into foam and wave by the ferocious winds. The world remained a sea for many generations."⁴ New lifeways and a shift in belief systems were a result of the transformed geography in this new realm.⁵ Within this history is a recognized difference between the people who existed before the "Great Flood" and those born after, who inhabited a new world. In these histories of the "New World," the "Original Man" (sometimes depicted as Nanabush) had to adapt to the new terrain of the postflood landscape. This history (recorded through the early chronicles of Nanabush) describes how the Anishinaabeg

adapted to this postflood era and saw changes to subsistence patterns, language, and epistemology.

The oral traditions of the Anishinaabeg, including the Great Flood, were recorded and are often transmitted using Nanabush as a spiritual figure representing these geographical changes and the Anishinaabeg's reliance on the natural world.⁶ Nanabush highlights how ecological changes during the flood affected the region and helped to lay the groundwork for the role of humans within the Great Lakes ecosystem.⁷ As Basil Johnston contends, this history speaks to the beginning of the world and cultural formation, which also informs political structures, family structures, and humans' role within their ecosystem. Not only did water exert a critical force in shaping historical space throughout the Great Lakes, but it was also a formative influence in constructing a specific cultural identity for the Anishinaabeg.⁸ As Anishinaabe legal scholar Darlene Johnston explains, "As a descendant of Great Lakes Aboriginal ancestors, I have been taught that our people come from the land, that we are shaped by the land."⁹ This sense of family connection (between geography and people) led the Anishinaabeg to develop advanced understandings of how their regional terrain changed during this period and informed their own identity, information recorded in their histories.

This common history, of the creation of the Great Lakes and the Anishinaabeg, is thus an intermingled one that speaks to a deep ancestral and nurturing connection with water. In addition to their importance as historical records, oral histories and ecological environments continue to inform Anishinaabeg cultural behaviors.¹⁰ Donald Fixico and Noodin highlight how, because of the nonlinear way that the Anishinaabeg view time, these histories, oral and biogeophysical, serve as constant reminders of the importance of pursuing a *mino bimaadiziwin* (living a good life) as nature shifts; and many of these histories emphasize the severity of the consequences if the natural order is not maintained.¹¹ Rajotte's work on linking indigenous knowledge to ecological precepts also emphasizes the Anishinaabeg concept of a Great Flood. She recorded how this history "is used to teach the value of cooperation and sacrifice for the good of the community, our dependence upon the other beings in the Creation, and the special re-creating powers of women."¹² Therefore, the history of the Great Flood is what the Anishinaabeg call an *aadizookaanag*, meaning it is both a historical record and a morally informative guide to action.

Use of these oral traditions in discussions of North American history aligns with Indigenous archaeologists such as Vine Deloria Jr. and Paulette Steeves' calls to reevaluate our understanding of ancient North America in a way that incorporates indigenous ways of knowing and remembering.¹³ Furthermore, acceptance of these histories as a factual account would help address a serious gap in our understanding of North America during the Younger Dryas. These accounts should be used in conjunction with recent advancements in carbon dating alongside geographical investigations and archaeological excavations. To do so would lead to a more advanced understanding of the Great Lakes timeline. Significantly, these modern studies suggest that deglaciation (which resulted in mass flooding) is responsible for the creation of the Great Lakes basin during the Younger Dryas. These modern methods suggest that a period of significant global warming led to receding glaciers, which caused a flood

of fresh water to fill the large Lake Keweenaw (the forerunner of Lake Superior).¹⁴ Throughout Lake Keweenaw's 4,000-year existence, it flooded a massive area of the modern Great Lakes (covering roughly 260,000 kilometers squared at its peak), a clear parallel to the period of great flooding described by Basil Johnson.¹⁵

Another clear parallel between these two approaches is the mass extinctions described in the Anishinaabe account of a Great Flood. In the case of the Upper Great Lakes, both the Anishinaabeg's histories and these modern methods suggest that climate change led to a period of flooding that then led to the extinction of many floral and faunal species; and which resulted in the creation of the distinct Great Lakes' geography.¹⁶ Scientist Samuel Turvey suggest that climate change and flooding created an "extinction window" (11,500–10,000 YPB) in North America, which occurred shortly after a period of climate change and flooding.¹⁷ This is echoed by scientists J. Tyler Faith and Todd Surovell, who link this period of flooding (which filled Lake Keweenaw) to the mass extinction of thirty-five genera of mammals in North America in a 2,000-year period.¹⁸ This is another clear parallel to the origin story of the Great Lakes. The fact that many of these archaeological, geographical, and climatological studies parallel the Great Flood concept, persevered by the Anishinaabeg, suggests that historians, archaeologists, and scientists should take oral tradition seriously as a part of a diverse corpus of historical material.

Similarities between the conclusions of oral traditions and modern methods are clear on the Great Lakes. Both schools of thought emphasize the importance of learning from natural observation and both link flooding to geographical and climatic changes that led to substantive shifts to the ecology and geographic formation of the Great Lakes region. Both schools of thought suggest that these changes came immediately on the heels of a Great Flood that covered the region in water. After this flood, a cycle of warming caused glacial retreat, exposing the southern section of the St. Mary's River and the northern shores of Lake Huron and Lake Michigan. Both approaches further point to the importance of water in the creation of the Great Lakes basin and highlight the ecological fluctuations and extent of the mass extinctions that resulted from this flood.

Common to traditional indigenous histories and modern scientific discourses is a sense of the nutrient-rich floodplains on the banks of the lakes (such as the highlands around the St. Mary's River) which allowed for early woodland growth and the creation of the "New World," a world defining the ethnogenesis of the Anishinaabeg.¹⁹ This concept of a new (or spontaneous) people who emerged after this flooding has recently been picked up by anthropologist Brian Fagan, who has linked the Ice Age to development of the "first modern humans."²⁰ The power of modern science to confirm the truth of a geohydraulic event described by the Anishinaabeg for more than 11,000 years is considerable.²¹ These parallel findings demonstrate the very real need to include Indigenous histories into the understanding of the past. This is particularly important, as modern scientific approaches are only able to tell part of the story, while the histories of Nanabush can go even further than these modern-scientific methods by providing a firsthand account of these changes.

It seems clear that the changes occurring during the early Holocene period may be better understood through a close reading of the knowledge embedded in the Anishinaabeg's oral traditions. In their account of a Great Flood, the adaptations made by Nanabush enabled the Anishinaabeg to survive this new world, which then served as a road map for continued success in the region. Therefore, the tales of the great flood and of Nanabush not only demonstrate geographical and ecological changes, they also depict a history of longevity and sustainability of the Anishinaabeg's lifeways on the Great Lakes. Through the combination of these traditional histories and more modern methods, the full history of the Anishinaabeg and the Great Lakes may now be tracked from their beginnings to the present day.

By using the Anishinaabeg's recorded relationship to their geography in oral traditions alongside more modern sources, an even clearer picture of this past emerges. These histories demonstrate cultural continuity of specific Anishinaabe traits that can be traced back at least 12,000 years. "The Story of the Great Flood" (and other stories of Nanabush) should then be seen as an instructive origin account of how the early Anishinaabeg populations were influenced by, and related to, their surrounding landscape and waterways. It was through Nanabush's lessons, which emphasized learning from nature, that the Anishinaabeg learned to survive in this new world. Nanabush taught the early Anishinaabeg populations the importance of learning lessons from nature for their survival, a central component of their continued learning. Nanabush further helped these people become familiar with specific geographical features, the traits and uses of specific plants, the lessons that animals taught, and how humans could help to maintain the balance of Nature if they learned these important lessons. Tracking the chronicles of Nanabush in the period immediately following the Great Flood (alongside climate and ecological models) provides a fuller history of Baawitigong than can be accessed by either source. However, the Anishinaabe histories contain lessons from the past that can be used today to better inform land use policies in the present.

THE RELATIONSHIP BETWEEN THE ORIGINAL MAN AND WOLF: TRACKING EARLY HOLOCENE DEVELOPMENT ON THE GREAT LAKES, SEEN THROUGH THE HUMAN-WOLF RELATIONSHIP (15,000–12,000 YPB)

In one of the first Anishinaabe histories from after the Great Flood, the Original Man was tasked with naming all the new geographic features, plants, and animals that had recently been created. Midewiwin leader and academic Eddie Benai-Benton describes how, in the postflood world, the "Original Man and Ma-en'-gun walked the Earth and came to know all of her. In this journey, they became very close to each other. In this journey, they became like brothers."²² This can also be seen in the ways that wolves taught humans important lessons in tracking prey, hunting efficiently, and siting a summer village with guaranteed game supplies. Anishinaabe writers Basil Johnston, Eddie Benton-Benai, and George Copway have all highlighted the specific importance of lessons taught by animals for the survival of the Anishinaabeg, and how this influenced the Anishinaabeg's political structures over time.²³ In this way, the patterns of

animals also provide a model to explore the early Holocene lifeways of the St. Mary's River's populations. The use of animal patterns, ecological models, and oral traditions work together to demonstrate that the distinct Anishinaabeg woodland identity began to form among the populations on the St. Mary's River by at least 8,500 YPB, several millennia earlier than generally believed.

"The Story of Original Man and Wolf" is set immediately after the Great Flood (roughly 14,000–10,000 YPB), when the Original Man and Wolf are given the task of exploring this new world from the Great Creator. The relationship between Original Man and Wolf in this history speaks specifically to the importance of the human-animal relationship during the Holocene period. This history provides information that scientists can only theorize about, but which the oral traditions of the Anishinaabeg describe in greater detail. It describes how Nanabush (the Anishinaabeg) travelled with Wolf (the wolves), and how the Anishinaabeg and the wolves, together, were attempting to bring order to the disorder of the Pleistocene epoch. As described by Benton-Benai: "Both the Indian and the wolf have come to be alike and experience the same thing. Both of them have a mate for life. Both have a clan system and a tribe."²⁴ During this process, and "in their closeness, they realized that they were brothers to all of the Creation."²⁵ The history recounts how Wolf served as an important companion, guide, and teacher to early man.

This oral tradition speaks specifically to the importance of Original Man's (and animals') adaptations to the new ecology after the flood. Wandering in the young world, Original Man (along with Wolf) were tasked with naming all of the new geographic formations, plants, and animals. This speaks to the ecological effects of the Great Flood, and the emergence of a new world amid geographic and ecological changes.²⁶ For both humans and wolves, these changes necessitated a change to their hunting strategies, catering to the changing availability of prey.²⁷ The Original Man (or Nanabush) and Wolf, worked together to develop an understanding of how to survive in this postflood world. Through exposure, humans and wolves formed a bond of trust in this rapidly changing ecosystem.²⁸

While there were many important animals to these human populations, the specific mention of the wolf-man relationship in this oral tradition begs further historical consideration. This history raises important questions about how and when this new ecology led to the formation of specific Anishinaabe culture and lifeway patterns. It also answers important ecological questions, and even speaks to the separation between humans and wolves, and the domestication of dogs (c. 8,500 YPB) by the beginning of the Archaic period. By describing how changing animal populations worked to affect the Anishinaabeg directly, the Anishinaabeg acknowledge that these calamitous events were part of interconnected phenomena. These, in turn, worked to inform the early concepts of the Anishinaabe identity, marking a shift toward the regionalized specializations that help to distinguish woodland culture.

In this culture, animals were to be respected, as each played an important role: the human-animal relationship was acknowledged as necessary for human existence.²⁹ Basil Johnston explains that "without the animals the world would not have been; without the animals, the world would not be intelligible."³⁰ As the spheres of animal species changed during the mass extinction, the Anishinaabeg-animal relationship changed as

well. This human-wolf relationship also means that tracking wolves and other animals today allows for more complex reconstructions of the annual movements of humans around the St. Mary's River in the early Holocene. Katherine Anne Usik's work on the Anishinaabeg-wolf relationship demonstrates how the Anishinaabeg acknowledge the wolf as a particularly important animal. It was through these animals specifically that the Anishinaabeg learned to explore nonhuman logics in the acquisition of new knowledge and skills.³¹

So close was the Anishinaabeg's initial relationship with wolves that the migratory patterns of human populations and wolves would have had a great deal of overlap. Usik explains that wolf populations can teach humans important lessons, including how to track migratory prey (such as the caribou), where to position a summer camp, and how to avoid overhunting a specific species.³² In fact, the long-distance mobility practices of early human populations on the St. Mary's River (outlined by anthropologists William Lovis, Randolph Donahue, and Margaret Holman) were directly influenced by the life cycles of animals. This means that tracking caribou-reliant wolf packs in similar ecological environments today can help map the migratory patterns of the Anishinaabeg during this early period of history.

This approach is in line with the Anishinaabeg belief that the animals were important educators, and the wolf (as an apex pack predator) had several lessons to teach. Alexander Paterson has looked at how the Anishinaabeg view ecology, describing how the Anishinaabeg "have a viable political system that brings 'nature' into their political equation."³³ An example of using "nature" to inform their political decisions was how they, by monitoring the movements of wolves, selected a summer village with steady access to prey animals, increasing the success rates of these early Anishinaabeg around the St. Mary's River. Observing the movements, behaviors, and hunting strategies of wolves was an important strategy for accessing prey.

Tracking these animals took an intimate understanding of wolf behavior and other natural cycles—an important skill. As Basil Johnston explains:

There is in animals a unique capacity to sense the changes of the world, the alteration of seasons, and the coming state of things. Man does not have the preknowledge possessed by blue bird or trout or squirrel. For man to prepare, he looked to his elder brothers [the animals].³⁴

Wolves were used as forecasters by the Anishinaabeg, influencing the positioning of their camps. Because of this, the movements of wolves were an important way that the early Anishinaabeg modeled their own lifeways around the Great Lakes in the early Holocene.

In Canada, there are still wolves that rely predominantly on large migratory animals (such as caribou) for most of the year, just as the early Holocene populations of humans and wolves did during this early period of Upper Great Lakes history. Modern studies on these wolves help to demonstrate the extent to which they possess "a unique capacity to sense the changes of the world, the alteration of seasons, and the coming state of things."³⁵ Despite these wolves' reliance on caribou, they create their summer dens hundreds of kilometers away from caribou herds, leaving the larger prey

of the subarctic plains in favor of the smaller game located in boreal woodlands. This strategy depends on the wolves' ability to predict fall migrations months in advance, to meet with this herd after the summer. More than predicting migration routes in advance, wolves are also able to easily find migrating caribou herds if their summer camps cannot support their hunting needs.

In this way, signs from wolves could help inform important human decisions for the entire year, including where to position their own communities, when game was depleted in a region, and how to track the migrations of other animals. The lessons wolves taught on hunting and conservation were embraced by the Anishinaabeg. Johnston explains that, from their older brothers (the animals), the Anishinaabeg also learned practical methods of conservation.³⁶ Multiple modern studies highlight that wolves have beneficial effects for prey species and large ecosystems.³⁷ Wolves work to thin weaker members from the herd, decreasing competition for resources, lessening risks of disease, and strengthening the bloodline of the herd. They also tend to help keep competition between prey species balanced by specializing in the hunting of a particular species when that species' numbers become too high. The fact that these caribou-reliant wolves tend not to den near calving sites further speaks to the wolves' importance in understanding conservation. Furthermore, when times are tough, wolves will travel vast distances to prey on herds of caribou. In this way, where a wolf established a den could serve as an almanac for the coming months.

The movements of wolves, therefore, serves as an important way to understand the early development of Anishinaabeg culture. Lessons from the wolves directly informed these peoples' lifeways and annual cycles, including where to position their own communities and how long they could live in a region before game became scarce. Scientists investigating this wolf-caribou relationship (such as Paul Frame, Howard Dean Cluff, and David Hik) point to evidence that wolves can successfully position these sites in regions that will guarantee maximum exposure to caribou during their autumn migrations, predicting the route these ungulates will use months in advance.³⁸ This demonstrates how these modern scientific studies on wolves echo the traditional knowledge of the Anishinaabeg, which highlights the forecasting ability of the animals and the importance of the human-wolf relationship on the St. Mary's River during the early Holocene period. This Anishinaabeg history of man and wolf thus highlights how these early humans relied directly on animals for survival.

Investigating the wolf-human relationships on the St. Mary's River during the early Holocene period paints a clearer picture of the adaptations made by humans and animals in the St. Mary's River region in the wake of the dramatic environmental changes that occurred during the Pleistocene epoch. The early histories of the Anishinaabe also depict larger trends of changing ecological relationships around the Great Lakes during this period.³⁹ The relationship between wolf and man was so intrinsic to the Anishinaabeg's survival during this period that it has been preserved within their accounts of the Original Man. It describes how this relationship saw human and wolves hunting large herbivores together. This was a mutually beneficial relationship, and an early example of *mino bimaadiziwin* (living a good life), which used the Great Laws of Nature to make hunting much more efficient for both humans

and wolves. It is likely that the first summer villages on the Upper Great Lakes (c. 12,000–10,000 YPB) were reliant upon the relationship between humans and wolves. It may be that their locations were chosen by the Anishinaabeg because a pack of wolves had decided to place their summer den near its shores.

THE FIRST VILLAGES ON THE UPPER GREAT LAKES (12,000–9,000 YPB)

The Upper Great Lakes' ability to support human and animal life eventually allowed the early Anishinaabeg populations to develop new lifeway patterns that were specifically adapted to the traits of the region. On the St. Mary's River, Margaret Beatty Bogue points to this first evidence of human inhabitation coinciding with the period of transition between the early spruce and fir forest to pine, which likely worked to initially support large Ice Age herbivores.⁴⁰ Deloria describes a general trend throughout North America, which saw people tracking these animals "south to north along river valleys."⁴¹ William Tonn points to the importance of north-south waterways to fish species in the early Holocene period: as various species of fish migrated northward, predators would have followed, helping bring additional animals and eventually people into the region.⁴² Rivers—and rapids, in particular—were important to these migrations, and served as important breeding grounds for plants and animals, drawing in the first human populations to the newly formed Baawitigong (St. Mary's River rapids). The early human population on Baawitigong were representative of this trend. Still reliant on Pleistocene prey and hunting strategies, they tracked remnant large animals across glacial strandlines, likely hunting the caribou, mastodon, elk, moose, and musk ox alongside wolves.⁴³

These early human populations on the Upper Great Lakes were likely composed of largely nomadic groups who tracked animal populations long distances amid ecological fluctuations. As the only gateway connecting the warmer southern lakes with the colder northern water systems, the St. Mary's River area would have formed an important highway for fish species, animals, and people alike.⁴⁴ The early Anishinaabeg populations and other predators (such as wolves) would have begun to follow prey animals north along retreating glacial ridges, which likely led to the first human village at Baawitigong. During this period, at least one of these hunter groups camped about one kilometer north of modern-day Leigh Bay, leaving behind them the earliest known artifacts in the region.⁴⁵

These various animals' migrations have led to the earliest known archaeological evidence of human presence in the region.⁴⁶ Archaeologist Meghan Howey has suggested that this human inhabitation of the Upper Great Lakes occurred roughly 12,000–10,000 YPB.⁴⁷ Archaeologists Walter Duffy and Ted Batterson provide a similar time frame, pointing to archaeological evidence that suggests human occupation of the St. Mary's Valley from at least 11,000 years before the present.⁴⁸ Archaeologist K. Dawson concurs, placing the first human inhabitation of the north shores of Lake Huron and Lake Superior at around 10,000 YPB.⁴⁹ The archaeological record is important because historians, anthropologists, and archaeologists still struggle to describe the Upper Great Lakes during the early and middle Holocene. As anthropologists Lovis, Donahue, and Holman have written, "The Middle Holocene human

adaptations of the upper Great Lakes region are a poorly understood phenomenon.”⁵⁰ Part of this uncertainty is caused by the fluctuating water levels throughout this period which have led to minimal extant archaeological-records.

The sheer force of water erosion caused by deglaciation likely worked to destroy much of the fossil and archaeological evidence around the St. Mary's River region. As Deloria explains, “Matching traditions about floods and the creation of lakes, rivers, and inland seas is somewhat more difficult, since the water is an erosive force that can wipe out otherwise useful signs of age.”⁵¹ Much of the organic matter that remains from this time is either submerged or buried, meaning that there is a distinct lack of archaeological clues from this early period.⁵² The scarcity of archaeological evidence makes the *aadizookaanag* of the Anishinaabeg pertaining to this period a particularly important source to explore these poorly understood early villages around the Upper Great Lakes. The lack of physical evidence means that the histories of the early journeys of Nanabush (in the postflood world) must be used as a framework to investigate this past.

In the case of the Upper Great Lakes, Indigenous and modern methodologies, used together, work to illustrate the adaptations made by animals and people to the shifting ecosystem of the early Holocene. Shifting flora and fauna made the human-animal relationships particularly important during this period; a theme central to the Anishinaabeg's traditional histories. Like these traditional histories, this study by Lovis et al. on the Upper Great Lakes area suggests that both human and animal migration patterns were influenced by the growth of early pine forests in what is now Michigan after a period of mass extinctions and variable water levels.⁵³

While it is interesting that both Anishinaabeg oral traditions and geographers have highlighted the importance of flooding to the creation of these geographic features, it is important to recognize that the similarities of these source bases do not end there. Both schools of thought also track the effects that this flooding had on the local populations of plants, animals, and people. Both schools of thought highlight the importance of this Great Flood to the development of early Holocene ecology, which led to the creation of specific Anishinaabeg lifeways on the St. Mary's River and throughout the greater Great Lakes region. Both approaches also link this period of flooding to mass extinctions and the rapid development of new ecosystems, which ultimately resulted in a different nature-human relationship than the one that had existed during the Ice Age.

The similarities in these source bases helps to further demonstrate how analysis of the early Holocene period could be taken further with consideration of the Anishinaabeg's historical descriptions.⁵⁴ By using these Anishinaabe accounts as a historical framework, modern studies may help add information to this narrative. These histories describe how, on the heels of this climatic shift from the Great Flood, came new types of forestations, mass extinction, and (relatively) rapid evolutions that formed a new world for the living beings in the Great Lakes region.⁵⁵ This framework has been corroborated by modern scientists such as Richard Wilson, who used pollen profiles to track these changes and to outline the development of early forestation following glaciation. Wilson points to an initial spruce forest, followed by a predominantly pine forest during the end of this period.⁵⁶ An anthropological study by Lovis,

Donahue, and Holman suggests that this shift formed enough grassland, woodlands, marshes, and open bodies of water in the area to support a variety of new species. This mixed boreal forest-grassland region along the glacier ridge would have initially been able to support a wide variety of species that had survived the Pleistocene period, many which now faced extinction.

By linking these indigenous histories to the time lines provided by modern scientific studies, we can now use shifting ecological baselines in the early Holocene period to better understand the development of the Anishinaabeg's woodland traits during this period of flooding, extinction, and forestation. Their histories describe how this adaptation was necessitated by flooding and climate change, which led to dramatic shifts in the geographic structure of their region, influencing the availability of edible plants and prey animals (all of which has been corroborated by more recent scientific studies). Through locating edible plants and regions with good hunting prospects, the early Anishinaabeg learned lessons that were incorporated into and preserved by their oral histories. These helped inform a new Anishinaabeg identity that differed to the people who lived in the area before these changes occurred, demonstrating that distinct Anishinaabeg (and great woodland) cultural traits began to develop on the Upper Great Lakes region as early as the Holocene period. This approach not only highlights the reliability and importance of these historic sources, it also suggests that the formation of a distinctly *woodlands* Anishinaabeg identity may have occurred over five millennia earlier than previously believed.

THE ORIGIN STORY OF DOG: HOW THE DOMESTICATION OF DOGS DEMONSTRATES THE SHIFTING OF LIFEWAYS IN THE UPPER GREAT LAKES (9,000–7,000 YPB)

This approach to the early history of the Upper Great Lakes can be taken even further by exploring the specific relationship between the early Anishinaabe populations and animals during this period of flux (9,000–7,000 YPB). In this case, the Anishinaabeg's early history of Dog may provide additional information about the history of ecological shifts in the region as well as the general history of dogs. The traditions surrounding Anishinaabeg's relationship with wolves (and their transition to a reliance on dogs) is accounted for in these histories, speaking to larger ecological shifts as well as adaptations by humans (and animals) in the early Holocene era. The contrast between two Anishinaabeg stories—"The Story of Original Man and Wolf" and "The Story of Dog"—in the context of a *new world* after a Great Flood, speaks to a variety of important shifts. It is not only a story about the physical breeding of *animosh* (dog or *Canis lupus familiaris*), which distinguishes this species from its cousin, *ma'iingan* (wolf or *Canis lupus*); it is also an oral tradition that emphasizes the importance of the Anishinaabeg's connection to their environment and to the animal world. It is also significant that this story points to Dog's existence prior to this point, but links an evolving human-dog relationship that changes this relationship moving into the Holocene and Archaic periods. This story suggests that canine domestication

was part of a larger change in cultural operation, which lessened the reliance on long-range migration in favor for seasonal nomadism and summer villages.

"The Story of Dog," therefore, serves as an example of this adaptation process toward a more distinctly Anishinaabe lifeway pattern in the new world after the flood. The domestication of dogs (tracked to around 9,000–8,000 YPB) marks a distinct change in the human-animal relationship, both in this history and more generally. This history demonstrates that the original relationship between Original Man and Wolf immediately after the flood (c.14,000–12,000 YPB) had now been replaced by their relationship to dogs (c. 9,000–7,000 YPB).

Following the example of the animals, the Anishinaabeg adapted their lifeways to suit the changes in the region. As the natural baseline of the region shifted to a more forested region, the early Anishinaabeg populations structured their lives around this new ecology. This signaled their reliance on woodland species specifically at the very beginning of the Archaic period, when populations on the St. Mary's River began to rely more heavily on regionalized-woodland specializations for their survival. The oral tradition that informs the early years after the Great Flood records how, before the flood and in the years immediately following it, the Anishinaabeg's ancestors had been able to speak directly with animals, and links the inability to talk to animals to larger ecological changes.

This ability to speak to animals may be a reference to Ice Age people's ability to communicate with animals when they relied exclusively on tracking large groups of herbivores across the vast icy plains of Ice Age North America (during which time they often lived in close contact with a wide variety of animals). These Ice Age populations undoubtedly relied on their ability to read the movements of these animals for food and for safety, and the movements of these animals largely dictated their annual cycles. Further than this, post-Ice Age wolves and humans have been demonstrated to hunt together using ambushes and cliff jumps, which would have necessitated a high level of communication between the two species. Given that both species rely heavily on vocal communication and body language in their interspecies interactions, it is likely that, given their close exposure and mutual reliance on each other's skills, humans and wolves could *speak* to one another.

While the suggestion that post-Ice Age people and animals could speak to each other is a difficult concept for *western* audiences, there are several studies that highlight that this was likely a skill held by post-Ice Age nomadic people. Peoples' ability to communicate with elephants (genetically similar to mastodons) has been well demonstrated, and historian Daniel Stiles has demonstrated how elephants are still relied on by people as guides to fresh water and edible vegetation and as a warning sign when predators are in the area.⁵⁷ Animal psychology specialists Laurie Bloomfield and Christopher Sturdy have demonstrated how people can not only communicate with birds but are now able to read their movements and interpret their calls with incredible accuracy.⁵⁸ Scholars Brenda Parlee, Micheline Manseau, and Łutsël K'é (Dene First Nation) have taken this even further, providing examples of some nomadic Indigenous populations communicating with Ice Age animals (e.g., caribou) that can still be found today.⁵⁹

When the survival of a population was reliant on understanding these forms of communication, it seems likely these skills would have been honed. This ability to communicate with animals is perhaps most clearly demonstrated by human-wolf encounters, and further evidenced by the existence of domesticated dogs. Wolves are social creatures who express themselves in a variety of ways. Ice Age people who hunted alongside wolves must have developed an intimate understanding of wolves' body language, calls, growls, yips, barks, and howls over time. The social wolf likely also became familiar with the behaviors, movements, and some important words in the human language, possibly even commands (much like a dog learning to recognize and understand the words *sit*, *walk*, and *treat*).⁶⁰ This would suggest that the ability to communicate directly with animals was an important trait for human survival in the Ice Age.

The continued importance of the human-wolf relationship after the Great Flood is acknowledged by the Anishinaabeg in their description of the period. But by the time dogs became domesticated, the wolf-human relationship was strained in these histories, possibly due to competition over food or a separation between humans and wolves (as the Anishinaabeg transitioned to more seasonally nomadic cycles). Forestation of the region may be responsible for this change. At the same time as the number of large plains herbivores of the Ice Age declined, the Upper Great Lakes region became covered in thick forests that were interspersed with grasslands, marshes, and lakes. This new terrain housed different animal species who tended to be smaller and live in less clustered grouping patterns.

During this time, the Anishinaabeg populations would have begun to rely on different animals for food, a detail recorded in these histories. Basil Johnston recounts how "the bear, who loved the newborn beings, offered his flesh so that the Anishnabeg would survive. Following the example of the bear, the deer, moose, porcupine, beaver, groundhog, grouse, and goose, and almost every animal being offered himself in sacrifice."⁶¹ This new geography and smaller prey necessitated new hunting methods. No longer were the Anishinaabeg hunting massive prey over the plains of a subarctic ecosystem, exhausting these animals with long chases before being able to harvest them. They now had to rely on tracking animals through the forest, hiding in wait, and harvesting more, smaller animals.

While hunting in forests, it would have been less beneficial to hunt alongside wolves. Wolves are expert trackers, capable of chasing their prey over great distances and of herding this prey into a trap or ambush, but they are not the most efficient killers. By comparison, humans are particularly good at killing prey (or designing tools to kill prey) and can harvest several large animals in a single ambush, but are not well suited to exhausting large herbivores across open plains. These individual skills made humans and wolves important hunting partners when hunting large animals on the tundra plains, where harvests of even a single animal could help feed a large population of humans and wolves.

This dynamic with wolves seems to have changed as the Anishinaabeg became increasingly reliant on woodland prey for their subsistence. A wider variance of smaller, easier-to-kill prey meant that wolves were no longer required to exhaust large animals, and there was less food to share when hunting this game. Dogs, however, are

more pliable and responsive to humans than wolves, and can be trained to perform specific hunting duties. This shift (from reliance on wolves to reliance on dogs) during a time of ecological flux is demonstrated in Basil Johnston's telling of how dogs became connected to man, a chronicle linked to the reason that wolves distanced themselves from humans. The history about the domestication of dogs not only demonstrates the early importance of this human-wolf relationship, it also highlights that the domestication of the dog marked a larger shift in the Anishinaabeg's lifeways. Given larger ecological trends in the region, and the actions of the other animals in this story, the domestication of dogs can also be equated with more sedentary lifeways on the St. Mary's River between 9,000 and 7,000 years ago.

Amid greater ecological change, these forms of Indigenous knowledge transmission highlight how a new world had emerged after a great flood, a world with a different geography, climate, and ecology than before. These changes are specifically highlighted by the changing relationship between the Original Man and Wolf immediately after the flood and the changing human-wolf relationship after the domestication of dogs (generations later). The Anishinaabeg's narrative approach helps to provide additional layers of information that works to broaden our understanding of this warming period in the region, and how it worked to shift the annual cycles and territories of humans and animals alike—meaning that a better understanding of this transition can be obtained through the inclusion of oral traditions and ethnographic understandings specific to the Anishinaabeg.

In their history of Dog's domestication, tension between humans and animals seems to be linked to living in close proximity to each other (possibly due to high waters decreasing the availability of land as well as forestation). This oral tradition outlines that there was a general animosity felt toward humans by the animal populations during this time, which resulted in a separation. This history of Dog depicts how animals will change their own lifeways if the actions of humans force a change. In this shifting environment, the animals eventually grew "weary of service," deciding instead that something must be done—"the animals convened a great meeting to gain their freedom."⁶² The bear, who had been the first animal to give his flesh for the survival of humans, was now "chosen to be the first speaker and to act as chairman of the session."⁶³ Councils were taken very seriously within Anishinaabe culture and were places where various viewpoints were to be discussed.⁶⁴

In this council meeting, the bear spoke first, addressing the rest of the animals. Johnston reproduces the speech of the bear at this important council of animals, a history preserved through oral traditions.⁶⁵ Bear began with the agenda, highlighting how

We are met to decide our destiny. We have been oppressed far too long by man. He has taken our generosity and repaid us with ingratitude; he has taken our friendship and fostered enmity among us.

Either we continue to serve him or we withhold our labors. Are we to continue to serve? We shall come to an end. If we deny our labors, we shall live. Should you choose the former, you must resign yourself to your fate. Should you prefer

the latter, then you must consider the manner by which it is to be accomplished. Consider carefully.⁶⁶

Just as with the Great Flood, the people of the Great Lakes saw themselves as responsible for their shifting role in the ecosystem, a result of the breakdown in their covenant with the natural world. Animals were now reacting to the lack of respect the Anishinaabeg were demonstrating toward them, leading them to punish humans.

In their anger, many of the animals believed that humans deserved death for their violations. Dog was the first animal to stand up to the crowd. Facing the other animals, Dog told the other animals that

I am for life. I am for mercy. . . . While it is true that man has been unkind, he has not been unkind to all. There are many in this company who have not suffered. The cat, the vulture, the whippoorwill, the frog, the butterfly, the mouse, the hummingbird have, all of them, lived and worked and rested without harm. To them, man has been kind. Perhaps he has been somewhat thoughtless. Is this a good reason to wish him dead? Man does not deserve death; he deserves to live, even as we live.⁶⁷

Although the dog gained some support in its quest to spare man, Dog was still worried about what the other animals might do. While other animals argued over who would kill man, the dog attempted to sneak away from the council to warn the Anishinaabeg of this danger.

As the dog left the council, he was unwittingly followed by the wolf, who was suspicious of dog's intention. This set in motion a series of events that would forever change the dynamic between humans and animals on the Upper Great Lakes:

Meanwhile, the other animals back at the council were arguing over the appropriate action to take against humans. But these discussions were interrupted abruptly, when the wolf dragged Dog back to the council and told the other animals that the dogs had attempted to warn the Anishinabek. Wolf then stated that "this dog has betrayed us. He must be punished. A little while ago, he made off almost unnoticed. But I saw him and followed. He went directly to the village of the Anishnabeg and divulged what we were discussing. One and all, the dogs must be punished."⁶⁸ The dog's attempt to warn humans was met with outrage. . . . The other animals seized the dogs and began to pummel them. Though the bear was as outraged as his brothers, he maintained his composure. He thundered out, "Brothers, it is too late. To kill the dogs would be without purpose and substance. Rather let him endure his servitude. Let him serve man. Let him know man's fickleness."

Turning to the dog, the bear, speaking on behalf of his brothers, said, "For your betrayal, you shall no longer be regarded as a brother among us. Instead of man, we shall attack you. Worse than this, from now on you shall eat only what man has left, sleep in the cold and rain, and receive kicks as a reward for your fidelity."⁶⁹

This story represents a very different dynamic to when the Original Man and Wolf were brothers that roamed the earth together. When asked to kill man, wolf replied

that “we cannot, and we dare not. Man is too clever.”⁷⁰ In this later tale, it was wolf who warned the other animals of Dog’s treachery and insisted that the dog be punished.

This history speaks to larger natural trends in this period, that ultimately led to human adaptations that define the Archaic period. In this later tale, Dog became a reminder to the Anishinaabeg to not allow this covenant with nature to fail again.⁷¹ According to these traditions, the relationship between human and dog was Dog’s punishment for protecting them from other animals, as the bear now told Dog that it “shall eat only what man has left, sleep in the cold and rain, and receive kicks as a reward for your fidelity.”⁷² In this oral tradition, the Anishinaabe’s original brother (the wolf) now supported the destruction of humans, and stopped the closely related dog from warning humans. The significance of the timing of Dog’s domestication (at the end of the mass extinction, roughly 9,000–7,000 YPB) is information that helps further unlock the important information contained within the oral tradition.

The timing of Dog’s domestication further highlights how this *aadizookaanan* speaks to the changing human-animal paradigm during this period. At the same time dogs became domesticated (between 9,000 to 5,000 YPB), climate fluctuations saw the botany of the Michigan forest shift into elm, maple, and basswood in central Michigan. The flora and fauna surrounding the Upper Great Lakes shifted greatly during this period as it began to resemble its modern ecology. These woodlands existed with dispersed grass plains, marshlands, and smaller lakes in the basins of Lake Michigan and Lake Huron, which allowed animals populations to disperse over a larger region, settling in different ecozones. The Upper Great Lakes region now housed mixed woodlands, grasslands, and marshes.⁷³ These histories not only provide information on intraspecies interactions and the cultural growth of the Anishinaabeg but also speaks to large-scale geographical and ecological changes during this period and to the importance of the St Mary’s River in managing this shift.

This story of Dog speaks to the effects of the rapid forestation in the rich flood zones, after the receding glaciers facilitated the growth of woodlands.⁷⁴ As water levels receded, animals were able to further separate themselves from humans, settling into their preferred territories. The Upper Great Lakes houses archaeological evidence of the spotted turtle, painted turtle, Blanding’s turtle, musk turtle, mallard, large-mouth bass, and the all-important beaver, who helped to create and maintain this wetland ecosystem at this time.⁷⁵ Significantly, these findings parallel the Anishinaabeg’s oral traditions, which point to both the turtle and the beaver as playing predominant roles in shaping the St. Mary’s River region.

Including indigenous histories is made more important by the fact that much of the archaeological record of the region during this period does not survive, and there have been few artifacts found anywhere on the Canadian Shield from this period (in contrast to the southern region, where multiple sites have been discovered).⁷⁶ Accordingly, the archaeological record of the Early and Middle Archaic periods are much sparser than that of the Late Archaic period around the Upper Great Lakes.⁷⁷ This scant archaeological trail means that Indigenous histories are one of the few extant databases of this region’s history.

The domestication of dogs can therefore be framed as a proxy for larger recognition of a step change in cultural and environmental practices. Domesticated dogs became increasingly reliant on humans (and vice versa) around 8,500 YPB, at the same time that the post-Ice Age landscape's flora and fauna changed the hunting territories and strategies employed by wolves, humans, and other predators.⁷⁸ It demonstrates how this tumultuous time of climatic flux severely affected animal populations, which led to difficult times for people and animals alike, shifting the human-animal relationship. The contrast between the first story of Original Man and Wolf, and the later domestication of dogs, describes how the human-wolf relationship changed in the midst of ecological change, framing the human-dog relationship as a result of this change.

The domestication of dogs was both a cause and a symptom of this shift. These histories together demonstrate how Wolf was able to teach Original Man after the flood (tracking and hunting the new prey) by hunting alongside man in this new world. Where Dog was able to hunt alongside the Anishinaabeg in the newly formed dense woodlands, dogs also served as a reminder to humans, representing the importance of living according to the Great Laws of Nature. But the adopted reliance on dogs represents only one of the many changes on the St. Mary's River during the Early Archaic period. Lovis, Donahue, and Holman add to this argument by describing how lower water levels of the Stanley period necessitated adaptations to lifeways and epistemologies. They explain that summer communities began to be established for more months at a time, but also point to the use of large-scale hunting parties as a social organization system by the Middle Archaic period.⁷⁹

Significantly, these oral traditions suggest that by the Early Archaic period, the populations on the St. Mary's River had begun their transition into a woodlands-and water-reliant people who lived according to an annual, seasonal migration, with established villages within a territory. These seasonal migratory patterns in a smaller territory worked to define a distinct woodland culture in this new world, but equally, it was these ecological transitions that necessitated the Anishinaabeg adapting to this woodland world. The shift in early Holocene human-animal relationships on the Upper Great Lakes that led to a seasonally nomadic woodland identity is undoubtedly an important one. It remains a field that would benefit greatly from more serious consideration of what Indigenous knowledge can provide to understandings of animal behavior.

The contrast between Wolf and Man at the end of the Pleistocene (15,000–10,000 YPB) compared to the wolf-man relationship at the time of the domestication of the dog (roughly 9,000–7,000 YPB) suggests that these lifeway patterns on the Upper Great Lakes became more regionalized by the beginning of the Nipissing Great Lakes rise (7,000 YPB), when rising water levels necessitated the use of regionalized specializations into the Archaic period (8,000–3,000 YPB). This changing environment and subsequent adaptations worked to define the Anishinaabeg, reflected in the mandate to learn from their environment through the teachings of Nanabush and carried forward by the Midewiwin, oral traditions, and continued practice. These oral traditions help to highlight that the world that emerged after the flood was indeed a new world, leading to a new culture that was distinctly different to the earlier age of

deglaciation and flooding. Like more recent scientific findings, these *aadizookaanag* highlight how the flooding after the last Ice Age did, in fact, lead to the creation of a new world, one that necessitated the development of a new, distinctly Anishinaabeg (meaning *original* or *spontaneous*) people, and led to increasingly specialized lifeways and technologies within this new Great Lakes world. Once again, relatively recent scientific advancements have only helped to confirm what the *aadizookaanag* of the Anishinaabeg has repeated for thousands of years.

NOTES

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