



# Ontario Archaeological Society

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**The Smyk Site near Ignace has a rare example of a multi-coloured pictograph. The rockpainting is unique with colours ranging from light yellow to purple with the majority of figures coloured red. (See article starting on Page 10)**

### OAS NEWS

3 President's Message

### ARTICLES

5 Traces of Middle Woodland Algonquin Populations in Southern Ontario

10 The Smyk Site Near Ignace, Ontario

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# Ontario Archaeological Society

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# **PRESIDENT'S MESSAGE**

## **AND WISE IN THE USE OF ALL RESOURCES**

Some of you may recognize the title of this message as the concluding phrase of the Canadian Scout Law. Intended to define one of the ideal characteristics of participants in the Scouting movement, it could as easily be used as a motto for anyone working in the volunteer sector. For, although this sector is rich in good intentions and good will, it is chronically hobbled by limited resources and capacity to pursue its objectives.

The OAS is typical in this regard. We rely on members to volunteer their time and effort working on our executive board and chapter executives in order to carry out the administrative functions of the organization. We rely on other members, not engaged in one of these formal roles, to similarly pitch in and help with the many tasks that allow our society to achieve its goals annually. Finally, we rely on our one-and-only employee—Executive Director, Lorie Harris—to look after the day-to-day needs of the society. This position is made possible by our annual Provincial Heritage Organization grant from the Ministry of Tourism, Culture and Sport. However, since we can only afford to retain our Executive Director on a part-time basis, it is the responsibility of us all—and especially that of the Executive Board and me, as president, in particular—to ensure that her valuable time is used as effectively and efficiently as possible.

Serving, as I essentially do, as her 'manager', I can state without reservation that Lorie's skills, experience, work ethic, and dedication to the job are all outstanding. I therefore have no concerns whatsoever about her suitability for this important job. What I do have concerns about is our current ability to provide her with the tools and resources that she needs in order to ensure the most productive execution of her job. This has primarily come to my attention by way of several

urgently needed up-grades to Information Technology (IT) hardware and software in the OAS office, most of which have now been addressed.

IT maintenance and support is the issue we are currently dealing with. We cannot afford to have Lorie struggling with IT problems on a daily basis, as she has had to do to varying degrees for well over a year. There was a time when we could rely on volunteer IT support and maintenance from Executive Board members, but no longer. I, myself, have spent many hours this year installing hardware and software and providing support, but when a problem crops up, as it invariably does in our increasingly complex and sophisticated networked computer system, volunteers cannot provide the timely support that is required.

It is false economy to cut corners on IT and IT support when it impacts on the productivity of our Executive Director. Moreover, we have a fiduciary responsibility to you, our fellow members, to ensure that the society is operated efficiently and that our membership data is curated safely and securely. We are therefore taking the steps necessary to secure professional IT support for the OAS office at a cost which is both reasonable and within our budget.

The issue of IT management is not the only structural concern I have, though. Having had long and wide-ranging conversations with Lorie about the management of OAS office affairs, I have come to the conclusion that a thorough review of policies and procedures is warranted. Even in our informal chats, we have discussed changes that could save the society hundreds of dollars per year—money that could be reallocated to critical areas such as IT support. I am therefore looking forward to working with Lorie, and with our treasurer-elect, Debbie Steiss, as we 'tune up' the OAS office over the coming months, to make sure that our

Executive Director can focus on the road ahead, and not be constantly distracted by bumps and potholes along the way.

An important management concept that comes into play in this regard is that of 'leveraging'. This can be defined as "the ability to influence a system, or an environment, in a way that multiplies the outcome of one's efforts without a corresponding increase in the consumption of resources." In other words, we should always be looking for ways to get the most 'bang' for our 'buck'. I'm sure I'm not telling you anything new, since archaeologists have always had to do things on a shoestring. I've just stuck a fancy management label on it. My point is this: we always need to be thinking about this to make sure we are leveraging our people effectively and looking for new ways to leverage our endeavours.

One example occurred to me this summer when I was visiting the Ottawa Chapter's annual Archaeology Day at Bonnechere Provincial Park. Not only did I see them successfully leveraging the archaeological expertise of the Chapter volunteers by having two of the park's Natural Heritage Educators (NHEs) help run the program, but I also learned that the NHEs include an archaeology module as part of their routine outdoor education programming in the park. In other words, the Ottawa Chapter had essentially spun off an educational program that was now being operated using the resources (human, material, and financial) of Ontario Parks. Wow! Now that's what I call leveraging!

I then thought about how my eldest son, Andrew, had run a similar program while working as an NHE at Pinery Provincial Park a couple of summers ago. This program was already in the programming repertoire of the park, no doubt a legacy of the archaeology that had been done in the park years earlier, although it hadn't been offered for several years when Andrew

offered to revive it. I also know that the Ottawa Chapter has run programs at Murphy's Point Provincial Park under the guidance of OAS members Brenda Kennett and Jeff Earl, and also at Charleston Lake Provincial Park. I have also seen evidence of archaeological work at Point Farms, Algonquin, and Awenda Provincial Parks, and of course at Crawford Lake and Longwoods Road Conservation Areas, and I'm sure there are many others as well.

Indeed, I think we can assume that every single provincial and national park and conservation area in Ontario contains archaeological sites, whether or not they have been discovered, documented, or

investigated. Therefore, it seems to me that there is tremendous potential to leverage the efforts of the OAS by working with Ontario Parks and conservation authorities, their NHE staff, and the many parks 'friends' groups, to develop and promote local archaeological programming. The Ottawa Chapter has developed a very successful model for doing this, so I will be looking into the possibility of getting a similar pilot project running in conjunction with Ontario Parks before too long.

I took the liberty of floating this notion past our new Minister of Tourism, Culture and Sport, the Honourable Michael Coteau, when I recently met him at an

introductory meet and greet hosted by the Ontario Heritage Trust. Although we didn't have time to go into details, he seemed intrigued by the idea. I particularly like the potential for creating outdoor education programs with a more holistic view of natural and cultural heritage.

If you have experienced archaeology in a park setting or other context which might lend itself to leveraging the mandate of the OAS, please share your experiences and ideas with me. I look forward to hearing your suggestions for ways we can get the most 'bang' for our volunteer time and effort 'buck'.

**Rob MacDonald**  
President



**2014 OAS SYMPOSIUM – OCT. 24 TO 26**  
**HOLIDAY INN WATERFRONT, PETERBOROUGH**

# TRACES OF MIDDLE WOODLAND ALGONQUIAN POPULATIONS IN SOUTHERN ONTARIO

by **Grant Karcich**

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During the last hundred years or so, there has been a long standing debate projecting ethnic identity back in time for the Algonquian and Iroquoian people of the Great Lakes. Such debates are no longer fashionable, but modern genetic analysis of prehistoric populations together with new ways of analyzing skeletal morphology are again suggesting answers to this longstanding inquiry. Today we can examine historic First Nations populations using DNA and cranial features and compare them to prehistoric populations for biological affinities. Earlier this year, Raghavan et al. (2014) used just such a comparison to show biological affinities between the pre-Dorset and Dorset and the Thule and modern Inuit populations.

Early attempts by archaeologists, such as William Wintemberg (1931), tried to distinguish between Algonquian and Iroquoian archaeology based on tools and ceramics. Initially, the early archaeology for Ontario and New York State was said to be of an original Algonquian populations with an intrusive Iroquoian population (Parker 1922) though that view changed gradually to an in-situ Iroquoian population development (Ritchie 1965). Similarly, the Rice Lake population in Ontario based on morphological traits was originally described as a non-Iroquoian population separate from the later Iroquois (Knowles 1937:51) only to be revised by Wright & Anderson (1963) and Molto (1983) to an in-situ development for the Ontario Iroquoians.

Based mainly on the archaeological sequences, William Ritchie originally identified the Algonquians with the Point Peninsula culture of the Middle Woodland period. Point Peninsula is found spread from southern Ontario to the Atlantic seaboard covering the distribution of various Algonquian people at the time of contact. Point Peninsula is claimed to be closely related to the Laurel culture found in northern Ontario and in Manitoba, which leads to the tantalizing suggestion that the two cultures were Algonquian speaking populations.

Attempting to distinguish ethnographic identity from the archaeology is inherently difficult. Often Point Peninsula sites have Iroquoian pottery stratigraphically situated above it, sometimes with a separating sterile layer. The early historical record complicates matters in determining ethnic identity of contact era sites. According to the Jesuit Relations, the Algonquian speaking Nipissing wintered with Huron-Wendat on Georgian Bay in the early 17th century. Along the Hudson

River in New York, the distinction between the Iroquoian Mohawks and their Algonquian speaking neighbours, the Delaware is invisible in the archaeological record since both groups practiced corn based agriculture and had similar cultural practices.

It is no longer fashionable to try to project ethnicity onto prehistoric archaeological sites because it is impossible to know when an ethnic group originated. William Engelbrecht (1999) argues that the Iroquois identity at time of contact does not project itself back into the prehistoric past due to the unknown changes in population fragmentation and coalescence before emerging as the historic Iroquois.

During the past two decades however, there has been a renewed discussion of Algonquian and Iroquoian origins based on archaeological data (Snow 1995; Crawford and Smith 1996), on linguistic grounds (Fiedel 1999) and on the molecular evidence (Schultz et al. 2001; Malhi et al. 2001) speculating on the origins of Algonquian and Iroquoian populations of southern Ontario, New York, and Pennsylvania. Thomas Whyte (2007) suggested that the Iroquoians and Cherokee are derived from a Late Archaic group of Appalachian origin.

Dean Snow claims that the Princess Point Complex of southern Ontario is the result of migration by the Clemson Island culture of Pennsylvania circa A.D. 600. Several researchers regard the maize cultivating Princess Point Complex people as indicative of Proto-Northern Iroquoian while Crawford and Smith argue for an in-situ development of Iroquoians in Ontario.

While a great deal of literature for the Great Lakes has focused on Late Woodland archaeology dominated by the study of Iroquoian cultures, little has been said about the Algonquians during the same period or for the Middle Woodland. James Webb (1972) found the greatest disparity in populations occurred between Middle and Late Woodland populations, with Late Woodland populations displaying some similarity to the historic Iroquois (Huron and Neutral) and Middle Woodland populations being the least similar to Late Woodland and historic populations. Richard Wilkinson (1971) found the Serpent Mounds population to group with those of Juntunen in the Straits of Mackinac and Backlund further west on Lake Michigan.

Harris and Bellantoni (1980) found two distinct population clusters on northeastern North America with one consisting of Late Woodland and historic Ontario Iroquoians and the other



**Figure 1. Donaldson site today**

of New York Iroquoians and historic Algonquian populations. Francis Knowles (1937:51-53) describes the Middle Woodland populations at Rice Lake as distinct from Iroquoians based on facial and dental features and on stature. David Stothers et al., (1994: 179) also distinguishes two distinct physical types based on cranial features and stature.

According to Wright and Anderson (1963), the Cameron's Point skulls from Rice Lake resemble the Donaldson crania located on Lake Huron. They compare the Donaldson features to those of the Iroquois based on the sample from Bosomworth and find a large number of distinctions between them.

**Table 1. Cranial non-metric comparison for Donaldson and Bosomworth skulls**

<u>Characteristics</u>	<u>Donaldson</u>	<u>Bosomworth (Iroquois)</u>
Form of the vault	Round	Long oval
Form of occiput	Not prominent, right type	Very prominent, mound
Supraorbital ridges	Continuous, median, Blend with margin	Continuous, V-shaped
Zygoma	Larger, more projecting	Facial region not so flat
Sagittal crest	Present	Absent
Shape of orbit	Rectangular	Round
Lower nasal margin	Blurred	Sharp
Gonial angle	Square, tall ramus	Rounded, shorter ramus
Form of chin	Bilateral	Median
Canine fossa	Absent	Present

**[DATA DIRECTLY FROM WRIGHT AND ANDERSON]**

Two professors at the University of Toronto are currently examining craniometric data employing a more modern approach. Their study compares historic Algonquian and Iroquoian populations along with prehistoric populations. For this examination I collected the craniometric measurements in the literature from 27 populations of the Great Lakes region. Of these, 19 are historic, two Late Woodland, four Middle Woodland, and two Archaic. The measurements are found in the literature (Hrdlička 1927; Wright 1963; Wilkinson 1971; Anderson 1968; Spence and Harper 1968; Molto 1979).

The short-comings on previous craniometric studies



**Figure 2. Map of Algonquian mitochondrial populations (Based on Shook 2008)**

lacked a large number of Algonquian historic populations. To make up for this, various Algonquian group data was extracted from Hrdlička (1927) and other sources. The cranial

measurements used in this study comprise of cranial length, cranial breadth, basion-bregma, bizygomatic diameter, upper facial height, nasal height, nasal breadth, orbital height, and orbital breadth.

**Table 2. Mitochondrial DNA Frequencies for Algonquians, Iroquoians and Donaldson**

<u>POPULATION</u> (Sample Size)	<u>HAPLOGROUP (%)</u>				
	A	B	C	D	X
<b>ALGONQUIANS</b>					
Chippewa (15)	26.7	13.3	33.3	0	26.7
Wisconsin Chippewa (62)	27.5	4.8	35.5	3.2	29.0
Manitou Island Ojibwa (33)	32.5	9.7	26.9	4	26.9
Turtle Mountain Chippewa (28)	57.1	17.9	17.9	0	7.1
Northern Ontario Ojibwa (28)	64.3	3.6	7.1	0	25.0
<b>Donaldson (8)</b>	50	0	25	0	25.0
<b>IROQUOAINS</b>					
Mohawk (123)	57.7	17.1	23.6	1.6	0
Okla. Red Cross Cherokee (19)	21.1	21.1	52.5	5.3	0
Stillwell Cherokee (37)	10.8	45.9	43.3	0	0

**(SOURCES: GONZALEZ-OLIVER ET AL. 2001 AND OTHERS)**

The University of Toronto preliminary results indicate that two major clusters are found using the cranial data. Middle Woodland populations of Serpent Mounds and Donaldson cluster together and are also found in close association with historic Chippewa and Cheyenne, two Algonquian speaking groups. The historic Huron and North West New York populations form a separate cluster of their own. This analysis supports an in-situ development of Algonquians in the Great Lakes region dating back into the Middle Woodland period. None of our Iroquoian related populations show affinity to the Middle Woodland, making an in-situ development for that group harder to prove.

Recently, Herrera et al. have

demonstrated that craniometric data is highly correlated with mitochondrial DNA data. Previously, my own studies of the mitochondrial DNA of the Donaldson population found evidence for a 25 per cent frequency of the X haplogroup. In modern Algonquian-speaking groups of the Great Lakes a similar X haplogroup frequency exists, while this haplogroup has not been detected in modern Iroquoian-speakers. Along with the craniometric data this is another strong indicator suggesting that the Donaldson people are directly related to modern Algonquians. By implication the same craniometric data for Donaldson also links them to the Serpent Mounds people.

More research is needed to make a stronger determination of biological affinity of the Rice Lake people of the Middle Woodland period. It is not known how far back the craniometric and mtDNA data extend when employed on the Rice Lake populations. Schultz, Malhi, and Smith (2001) predict an intrusive Proto-Algonquian population for the Red Ochre/Glacial Kame cultural zones of southern Ontario at around 3000 B.P.

After the disappearance the glaciers when did the Algonquian populations arrive in the Great Lakes? Tantalizing new genetic clues provide a glimpse into the archaic origins of Algonquian people. Achilli et al. show that mtDNA haplotypes X2a and C4c are shared by Algonquians and Athabaskans, such as the Na-Dene. Reich et al. (2012) after examining single nucleotide polymorphisms (SNPs) in 52 Native American populations found evidence for three separate populations that colonized the Americas.

After the initial Amerindian migration Reich found two additional ancestral populations that expanded from west to east along the northern tier of North America. These populations consisted of the ancestral group to modern Inuit and Aleut speakers and another group ancestral to modern Na-Dene speaking Chipewyans. These findings revive the theory of the Greenberg, Turner and Zegura (1986) based on linguistic, dental and genetic data postulated a three wave migration of Asian populations into the Americas. When they examined the three wave model for the initial population of the Americas in 1986, the genetic data held least strong evidence. Today, more genetic sources are used to finally lend support the model.

Recently, Reich et al. (2012) generated a neighbour-joining tree based on Fst distances of the 52 American populations, in which the Chipewyan clustered closely together with Algonquin, Cree, and Ojibwa groups to the exclusion of all other American populations, including the Inuit-Aleut. This data suggests that Algonquian speaking groups, such as the Cree and Ojibwa have some genetic affinity to Na-Dene speaking groups and that both may have been part a separate population wave that initially populated the northern areas of North America from east of the Rocky Mountains to the Atlantic seaboard.

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# THE SMYK SITE NEAR IGNACE, ONTARIO

By Dennis Smyk

Almost a half-a-century ago, I found the book *Indian Rock Paintings of the Great Lakes* by Dewdney and Kidd (1967) in the Ignace Public Library. This definitive book on the subject of rock paintings (pictographs) captured my attention and started me on a life-long journey of search and discovery. I began looking for the handful of mentioned sites near Ignace, followed up on leads, and searched for more.

When I began there were approximately 400 known sites in the Canadian Shield; I have found nearly 150 new sites, including one in the summer of 2014.

## ABOUT PICTOGRAPHS

Pictographs (picture writing) are figures of people, animals, canoes, bows-and-arrows, signs of medicine: drums, rattles, medicine bags and other items precious to the Indigenous healers. They may have been painted as far back as 2,000 years ago.

The 'paint' is based on ochre, a naturally occurring geological material containing a mixture of hydrated iron oxides and hydroxides. Its colouration is due to the types of contained iron compounds, ranging from red (hematite) to yellow (limonite). Heating dehydrates powdered ochre (i.e. drives off the water), resulting in an anhydrous form with darker colours, ranging from vermilion to black. The most frequent colour is red or a variant of red. Multi-coloured pictographs are rare, and one – the Smyk Site near Ignace – is unique with colours ranging from light yellow to purple with the majority of figures coloured red.

The binder was likely water-soluble fish glues or egg fluid, or possibly sturgeon oil or bear grease. Given time and provided driving rain did not affect a fresh painting, this combination of natural substances created images that have survived the test of time, possibly several hundred years. I have seen sites where a thin sliver of rock has broken away, taking part of an image with it; behind the missing piece the newly revealed surface is coloured, evidence that the paint soaked through!

## SITES

The paintings are usually on vertical rock walls immediately beside the water, some at the base of cliffs, easily reached by a person sitting in a canoe. Others are on rock faces that have crevices or small caverns, giving the effect of entrance to the cliff. Some are on rock faces sloping over the water at angles which makes one wonder how they were painted; one I photographed from a canoe by holding the camera at water level with outstretched arms.

## THE SMYK SITE

In the late 1960s, following a site lead on a lake near Ignace,

I not only found the painting I was looking for, but in a small cove off the beaten path I found the unique Smyk Site, named for my finding it. (For the sake of site safety the lake name is not mentioned.)

The following description is from Peter Lambert's 1983 report for the Ontario government. The panel is a little more than a metre wide by a metre high. It straddles two horizontal faults and is subdivided by a nearly vertical, central crack which runs through the largest figure (Figure 1) (Full Pictograph shown on Page 1). As mentioned earlier, polychrome (multi-coloured) pictographs are rare with none reported with the combination of light yellow to purple with the majority of figures coloured red found at this site.

Following are excerpts of the more obvious elements of the site description. I have numbered each figure and discuss them in turn. Thirteen figures occur on the panel. The central figure depicts a sturgeon hunt by two canoes containing nine and 12 inmates, respectively. Figure 1 holds the smaller number, shown as eight short streaks and a single taller and diagonally drawn line at the left hand. The latter inmate might represent the position occupied by the harpoonist whose weapon is also shown as having 'struck' the flank of Figure 2, the large fish figure to the right of the canoe. The longer line may, alternatively, be a steering device.

As mentioned, Figure 2 is the apparent quarry of the canoeists. It is oriented vertically with tail down, perhaps implying that it is surfacing or is being retrieved by the hunters. The figure is struck in the flank (left, on the painting) exposed to the first canoe (Figure 1). A red ochre smear is shown below the approximate entry wound and might be interpreted as the resulting flow of blood. The smear is most intense at the wound and becomes less so, distally (towards the tail).

The nearly vertical crack in the panel runs through the centre of the tail and most of the distance of the figure up the right side of the body. It terminates to the right of the ochre (outside the body), giving a tilted appearance to the fish. Any significance given to the crack in consideration of mirror imagery must therefore be placed on the intersection of the crack and tail rather than the relationship of the crack to the rest of the body.

Mirror imagery, however, is evident from the placement of a nearly identical canoe to the right of Figure 2 in conjunction with the placement of Figure 1. The second yellow-ochre canoe (Figure 3) does show some variation in detail but colour, size and shape are common to both.

Figures 7 through 9 are various hand and finger prints. The first consists of a series of four, equally spaced, elongated finger smears but no palm print. These were probably executed as one action of the hand rather than each finger separately, as spacing and lengths are proportional. Figure 8 is of similar intensity as Figure 7 and is likely the same right hand based on similar finger morphology. Figure 9 is comparatively faded and appears to be a left handprint with second and third fingers spread.

Section C bears two figures and a small smear divided by the central vertical crack that separates this section from Section D. Figures 10 and 11 both convey the idea of a hidden chamber located within the cliff by discontinuous handprints portraying origin within the upper horizontal fissure. These may have been executed at different times due to the evident difference in intensity and apparently represent activity by Maymaygwayshi.

Maymaygwayshi (as they are called by speakers of Anishinaabemowin) are sometimes described as dwarfs, red-haired men, or extremely hairy, noseless demihumans who live within the shoreline in crevices and cliffs. These 'little people' are reputed to enjoy fouling and breaking fishermen's nets and stealing game. Sometimes to see one was a portent of impending death although it is thought that they had influence over fluctuating water levels and, to some degree, the weather on the lakes.

Two figures and several red smears of different intensity are found in Section E. The Figures 12 and 13 are both executed in dark purple ochre and represent a non-phallic human (Figure 13) and an anthropomorphic companion (Figure 12). The former is central and has a round head, a rectangular trunk and arms nearly 90 degrees outstretched. Both legs are illustrated but one is foreshortened by contact with a fissure in the rock. The anatomical right hand appears to grasp a semi-circular object at arms-length.

On the other side of the grasped object, though not apparently in contact with it, is the anatomical left arm of Figure 12. Association is nevertheless implied by the lowered and extended arm, suggesting that the figure may be reaching for

the same object. The body is generally amorphous except for the left arm. The crooked right arm is present but is disarticulated from the faded right shoulder area. A head is not apparent and no distinction is made of legs. In general, the object that the two figures are grasping suggests a non-human form, perhaps that of an otter. [Otter skins were used to make medicine bags – Ed.]

### CONCLUSION

The Smyk site is rare – few sites are ever recorded with multiple polychromatic images. This explanation of its sections and figures is intended to bring this important site to the attention of the archaeological community and to encourage others to seek and record similar places.

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