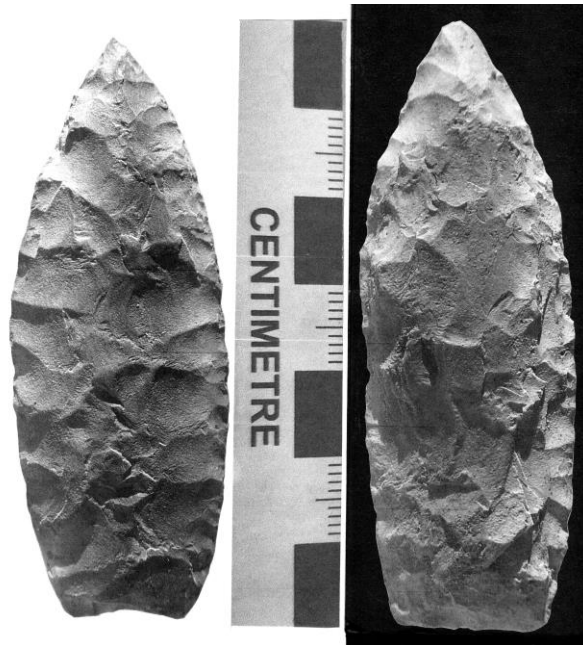


TWO LATE PLANO POINTS FROM LAC SEUL

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According to the recent geological findings pertaining to regional chronology, the human history of northwestern Ontario may have been delayed until sometime after 10,000 RCYBP¹ due to the sustained presence of active glacial ice. This means that the entire Early Indigenous chapter of northwestern Ontario's cultural history falls within the Plano era.

At the 2013 MAS annual meeting, archaeologist Brad Hyslop displayed a pair of surface-found projectile points (Figure 1) from shoreline sites EaKa-9 and EbJx-9 on the southernmost shores of Lac Seul (Figure 2, 3). Their size, overall lanceolate shape, irregular flaking pattern, and bi-lateral grinding justify their classification as late Plano. They were fashioned from local, not exotic, raw materials.



*Fig. 1. The two late Plano points from EaKa-9 (left) and EbJx-9 on Lac Seul.
Courtesy of Brad Hyslop.*

Palaeohydrology of the Lac Seul Area

The two Lac Seul projectile points form part of an ever-expanding data base relating to

¹ All dates in this paper are expressed in Carbon 14 years.

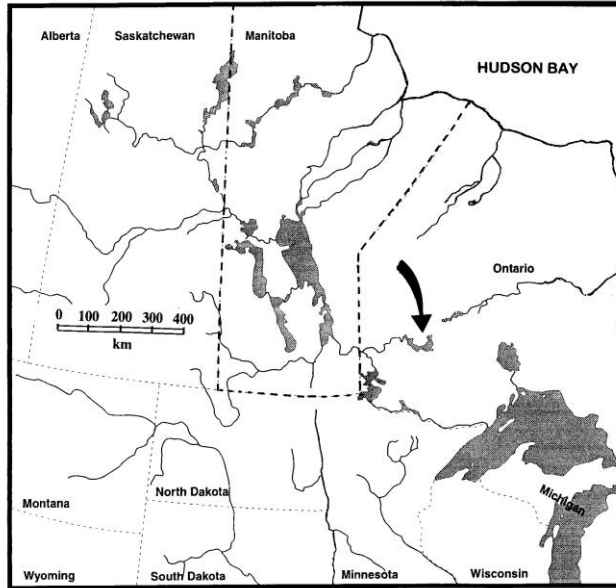


Fig. 2. Location of Lac Seul (arrow) relative to southern Manitoba. Base map courtesy of Scott Hamilton.

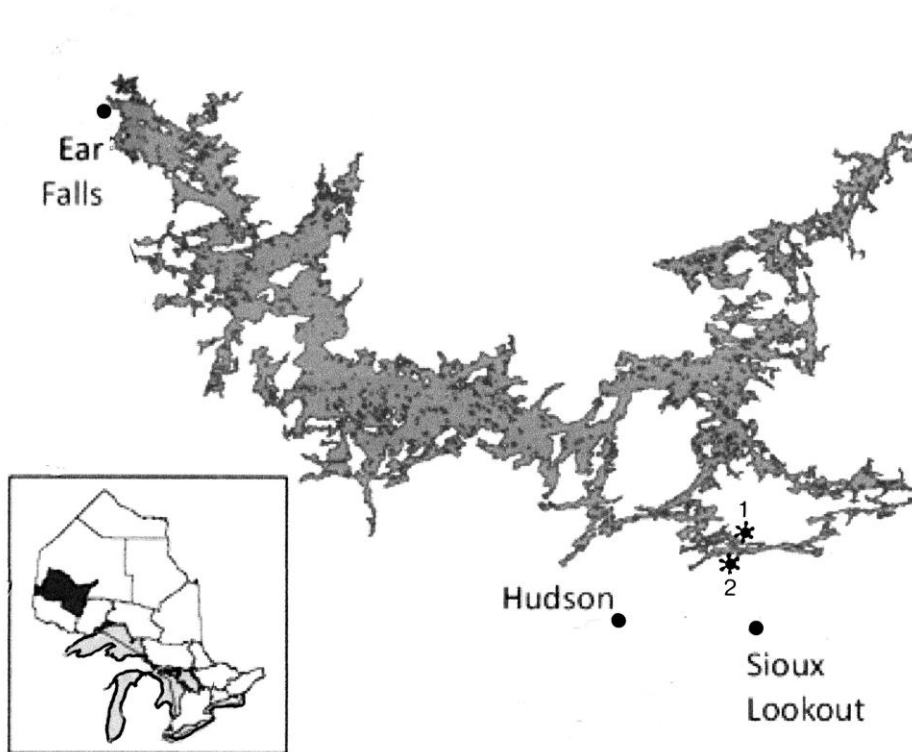


Fig. 3. Lac Seul, showing locations of sites EbJx-9 (1) and EaKa-9 (2) north of Sioux Lookout. Inset shows location of general Lac Seul area east of the Manitoba border. Base map courtesy of Ontario Ministry of Natural Resources.

the early post-glacial human colonization of the eastern Lake Agassiz basin. During the ca. 9,500-8,700 BP time interval, the Lac Seul basin was an embayment of Lake Agassiz and part of a heavily indented, irregular shoreline fronting on a large archipelago, with the water level several scores of metres higher than that of modern Lac Seul.

But as Lake Agassiz's levels fell, Lac Seul became increasingly isolated from the larger water body. By about 8,700 BP, the two lakes were connected by a narrow channel, and several centuries later, Lac Seul was independent. For a while, its southernmost reaches – including the places that yielded the two projectile points – would have been temporarily dry (Figure 4). Since then, differential isostatic rebound has resulted in progressive southward transgression and expansion of the lake.

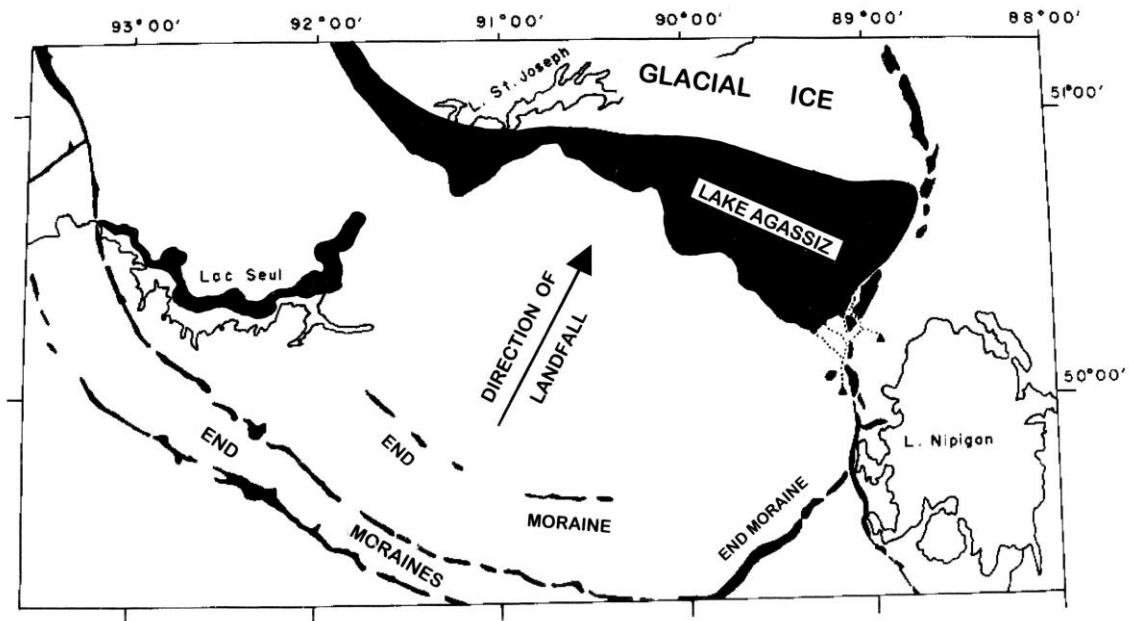


Fig. 4. Hypothetical reconstruction of Lac Seul hydrology ca. 8,200 BP. Note that the northern stretch of the lake's basin and adjoining strip of land are flooded, while the southern sections are dewatered. Base map by S.C. Zoltai, published in 1967.

Actually, isostatic rebound wasn't the only phenomenon that governed the changing dimensions of Lac Seul over the past 7,500 years or so. Episodes of reduced precipitation and increased evaporation across the region during the rest of the Early Holocene and on into the ensuing Middle Holocene may have occasionally reversed the upward (rising) trend of the water's surface, resulting in a lowering of lake levels and a smaller Lac Seul from time to time during the Hypsithermal.

Geologists Jim Teller and Bill Last invoke the analogy of a "battle" between isostatic rebound and climate change in reconstructing the natural dynamics of contemporary Lake

Manitoba and this can serve as an analogy for what happened in the Lac Seul basin as well. When the effect of uplift at the northern end of the lake basin overcame the drying influence of the climate, the rate in rise of the lake increased and water was forced from the north to the south end of the basin.

When the dry climatic conditions had the upper hand, however, the net effect was a lowering of the water level in the southern extremities of the lake. During the cooler and wetter Late Holocene that followed, the lake level continued to rise and still continues to do so, aided and abetted by an up-tick with the construction of the Ear Falls hydro dam at the lake's outlet in 1929.

Human Habitation

According to the most recent models of deglaciation and dewatering of the regional landscape, large portions of the general Lac Seul area were open to human habitation as early as 9,500 RCYBP. At that time, Lac Seul was still an arm of Lake Agassiz and its shoreline was higher than it has been in historic times.

When, just before ~ 8,500 BP, Lake Agassiz withdrew from the Lac Seul region and only the northernmost part of the basin contained water, people could have ventured onto the now-sub-aerial landscape in and around the southern basin. But differential rebound in the north since then has resulted in re-flooding of the southern basin, inundating whatever cultural materials might have been laid down during the brief lake-free phase of this immediate post-Agassiz era.

If the Plano occupations were lakeside, the earliest would have been during the later stages of Lake Agassiz, and the find-sites would have become stranded high and dry during the Middle Holocene. Although the water level would have risen during the wetter Late Holocene, it doesn't appear to have achieved a sustained level equivalent to that of the Plano era because the Lac Seul points show no evidence at all of water-wear. The recent shoreline erosion that exposed them would have been occasioned by the artificially high water levels caused by the hydro dam, but even those must have been very short-lived, again, given the un-eroded condition of the artifacts.

Over the past several decades, various writers have envisaged several routes of access to northwestern Ontario from the outside. J.V. Wright suggested a southeasterly movement from Nunavut through northern Manitoba (Figure 3A). By 7,600 BP there was a sub-aerial expanse of the Canadian Shield in existence between the Tyrrell Sea and Palaeolake Winnipeg, and theoretically the movement proposed by Wright could have transpired. However, as a source for the peopling of the Lac Seul area, this hypothesis is not particularly convincing, for two reasons: (1) there were alternate source populations much closer at hand just to the south in northern Minnesota and southern Manitoba (Figure 3C, B), and (2) the intervening northern transition zone of Manitoba and adjacent Nunavut have been unproductive of late Plano material even though archaeological expeditions have been realized there.

Currently, the consensus among Ontario archaeologists is that their portion of the Severn Upland would have been colonized from the south because many of the late Plano projectile points have a plains cast to them that would imply a point of origin to the southwest (Figure 3). Others are made of stone that's native to western Wisconsin of the American Upper Midwest. Additionally, immigration may have proceeded across the recently-drained southern basin of Lake Agassiz in Manitoba (Figure 3B).

In addition to the shoreline and near-shoreline environments of the large Glacial Lake Minong (Figure 3), people also could have frequented the rivers and smaller water bodies of the hinterlands to the north and west within northwestern Ontario where productive fishing spots and game crossings were to be found. This is demonstrated by the widespread if sporadic distribution of Plano points, including the Lac Seul specimens, across the Canadian Shield from Lake Superior to the Manitoba border.

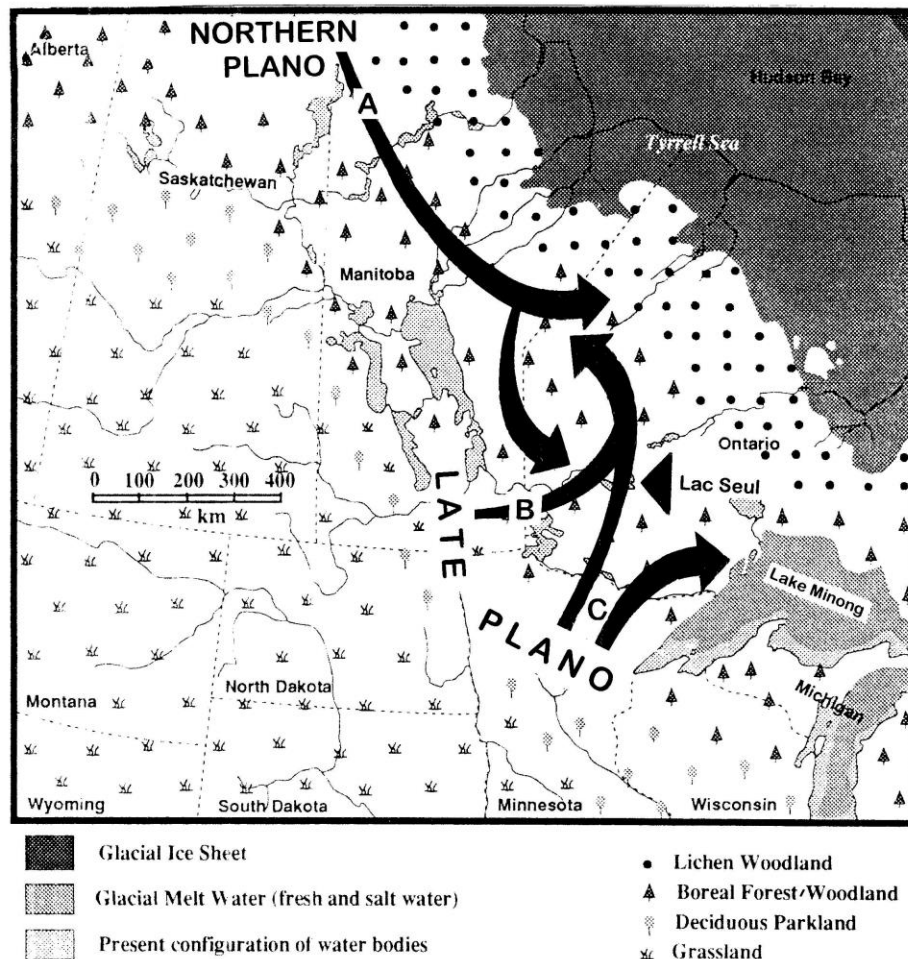


Fig. 3. Speculative depiction of hypothesized main routes of access into northwestern Ontario by late Palaeo people: (A) from the northwest ca. 7,600 years ago, (B) via the southern Agassiz basin of Manitoba ca. 7,800 years ago, and (C) from northern Minnesota ca. 8,500-7,500 years ago. Base map courtesy of Scott Hamilton.

Dr Scott Hamilton has summed it up rather well; throughout the late Plano period, hunters and gatherers were likely dispersed across the Severn Uplands between the major meltwater lakes of the Agassiz and Superior basins. As this upland gradually expanded in the wake of continued ice retreat and subsidence of meltwater, a continued northward radiation of hunting bands was made possible.

The Tyrrell Sea

The dispersal to higher latitudes was initially arrested by the northeastern arm of Lake Agassiz that covered northern Ontario as the lake was expanding in the north while contracting in the south. Following the catastrophic failure of the ice sheet and the final drainage of Lake Agassiz ca. 7,700 BP, the waters of the Tyrrell Sea promptly flooded the entire Hudson Bay Lowland which, for the time being, further delayed northward expansion by the regional human population in terminal Plano times (Figure 3).

Here again, as was the case throughout the Late Glacial and most of the Early Holocene, colonization of a large expanse of central Canada was forestalled by the presence of an immense body of water. Archaeological fieldwork carried out in the Hudson Bay Lowlands of Ontario has produced evidence of post-glacial Aboriginal habitation, but none of it was identifiable as Early Indigenous. Nor is there any reason to believe that the highest shoreline of the Tyrrell Sea -- the "marine limit" of inland seawater transgression -- was apparently ever inhabited, at least in its early relict state: an archaeological survey conducted in 1976 along the ancient beach ridge surprisingly turned up no sign of Early or Middle Holocene human occupation of any kind.