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## EARLY HOLOCENE ARCHAEOLOGICAL SITE VISIBILITY IN OTTAWA

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Using maps of the topography, soils, surficial deposits and bedrock geology of the City of Ottawa, I described some recent fieldwork by *Kinickinick Heritage Consultants*, concerning recent discoveries of stone tools from relict shorelines of the recessional Champlain Sea, high above the modern Carp and Rideau Rivers at elevations from 90 to 115 m a.s.l. Similar activity areas, marked by discarded expedient tools and extraction areas, have also been found recently on hydro corridors which transect the Mattawa-Nipissing-Huron basin, at elevations consistent with the high relict strands of the Early Mattawa Flood and Mattawa Base Flows. The sites include vein extractions areas (quartz, rhyolite, sericite schist, mica schist, amphibolite, galena, etc.) and lithic workshops/camps situated on landforms to take advantage of locally available lithic material like Kitchissippi Chert, quartzites and siliceous sandstones from cobble sources in beach and till deposits. Other sites with high artifact density occur where ancient shorelines coincided with stony, pre-Champlain Sea, ice-contact stratified drift – areas still mined for lithic resources. To date, only a few of these sites have had Stage 3 / 4 assessment.

Although the results have fascinating intra-site distribution patterns and occasional “ghost features”, only traces of organic remains have yet been found. Based on a growing sample of recent discoveries, *Kinickinick* project consultants have observed that, in the Metasedimentary (bedrock) Belt that characterizes most of Eastern Ontario, the ever-opportunistic hunter-gatherers of the Late Pleistocene and Early Holocene, had a lithic tool kit based on expedient tools made from a variety of lithic materials, most of them abundant locally and/or widely available across the region. This expedient use of locally available lithics was a hallmark of human hunter-gatherer economic behaviour world-wide throughout the Lower and Middle Palaeolithic, and it continued to be an alternate lithic reduction strategy for many late Pleistocene/Early Holocene hunter-gathers who also used bifacial tools or prismatic blades. In many places however, where there are mountains of sharp hard rock, the most economic path for mobile minimalist hunter-gatherers was to continue (for the most part) expediently using the material easily at hand. While some archaeologists in this region have recognized expedient tools immediately – when shown the sites and artifacts – and have rapidly learned to recognize extraction areas and lithic scatters themselves, others have expressed surprise at the materials used expediently, and other have flinched at the appearance of a pebble tool, let alone a collection of expedient tools. More information is clearly necessary – especially for those who *should* recognize this technology – for if the markers of seven millennia of human activity cannot be recognized, the record cannot be studied, or preserved.

In conjunction with the curator of Ontario archaeology at the Canadian Museum of Civilization, *Kinickinick Heritage Consultants* plans to conduct research into the fundamental properties of some expediently used lithic materials, to better understand fracture patterns, flaking potential, and flaws. Hopefully this will lead to a program of replicative archaeological experiments to reproduce particular scrapping-cutting-chopping-perforating edges – shapes that occur over and over in collections of expedient tools – to determine what function they do best and in what material they best perform, in order that a reference collection of lithic use wear can be built. Only then can we examine the collections that are rapidly accumulating to learn what activities took place, so long ago, on those high relict strands.