

Fun in the Sun and Water:
Artifacts and Floral Remains from Lockport Site (EaLf-1)
Field School, June 2016

Sara Halwas, Ph.D.
University of Manitoba

MAS 2017 Conference Presentation, September 23, 2017

Introduction

In June 2016, the University of Manitoba Department of Anthropology led a field school at the Lockport site (EaLf-1) in Lockport, Manitoba as part of a long-term investigation on pre-contact Aboriginal farming practices in Western Canada. Field school students learned the basics of archaeological excavation and soil sampling techniques while investigating the Late Plains Woodland Kenosewun culture that farmed maize and beans and utilized a suite of local native plants. Soil samples were collected for later floral analysis to investigate imported domesticated and local native plant taxa associated with the occupation of this portion of the Lockport site.

Post field school, additional courses were offered by the University of Manitoba Department of Anthropology in which students gained practical archaeobotanical (Botanical Analysis on Archaeology) and archaeological laboratory (Practicum in Archaeology) experience. A subset of artifacts and a soil sample was sent to Lakehead University to undergo a series of biochemical analyses in order to better understand how people were living at Lockport (See Syms 2017 abstract). This paper provides a summary of results from the field school excavation, artifacts identified by the Practicum students, and results of the floral analysis. This summary is excerpted from the field school report (Halwas et al. 2017) and archaeobotanical report (Halwas 2017).

Excavation and artifacts

After an opening Blessing Ceremony by Elder Sinclair and the Drummers from Peguis First Nation, Dr. Robert Beardsell (Site Director), nine undergraduate students from the University of Manitoba, and six volunteer archaeologists, opened 16 units across four excavation blocks. Students excavated each unit to 50cm DBD, as the focus was finding and excavating the Kenosewun cultural level, which was suspected to be in the upper soil strata.

Over 7000 artifacts were recovered during the short four-week excavation, 90% of which were pre-contact artifacts and ecofacts relating to of two main occupation levels (Figure 1). An upper Late Woodland occupation level (25cm – 35cm DBD) was preceded by the Late Plains Woodland Kenosewun occupation level (35cm – 45cm DBD). There also appears to be an occupation level 45cm – 62cm DBD beneath the Kenosewun level and may be associated with an earlier Late Woodland occupation. All occupation levels were associated with ceramic body and rim sherds, various lithic tools and debitage, and faunal remains (Figure 2, 3). The Kenosewun occupation level was richer in artifacts than the Late Woodland occupation level and contained the only projectile point recovered during the excavation. A Knife River Flint triangular point was recovered from Block 2 and was sent to Lakehead University for biochemical analysis.

The majority (87%) of recovered remains were faunal, both fish and mammal. Lithic flakes of various stone (e.g. Knife River Flint, Swan River chert, Selkirk chert) and ceramic body sherds made up approximately 15% of the total recovered remains. Lithic tools, including retouched and utilized flakes, biface fragments, and core fragments, a bone scraper and bone pin, and a small quantity of daub, comprised the remainder of artifacts.

Archaeobotanical analysis

A total of 67 soil samples were collected during the excavation for later floral analysis by students taking the Botanical Analysis course held at the University of Manitoba during the 2016 Fall semester. Samples were processed by flotation that separates carbonized plant remains from the surrounding matrix. Carbonized material is lighter than water and will float when submersed. Selected samples were associated with either the Late Woodland or Kenosewun occupation levels, or samples from mixed levels.

A total seed density of 6.4 seeds/litre representing 30 native species characterized the floral component. No domesticated plant remains were recovered from these samples. Few carbonized plant remains were recovered from the Late Woodland samples with the majority of recoveries associated with Kenosewun samples across all excavation blocks (Figure 4). Overall, a variety of seed and fruit remains of native plant species used for food including wild cherry, raspberry, saskatoon, and hazelnut, plus small seeded annuals such as goosefoot were recovered.

Across all Blocks, the Kenosewun occupation level produced the highest seeds densities and numerous plant taxa. In Block 3 and 4, carbonized plant remains were concentrated in in two samples EaLf-1-57 from Block 3 and EaLf-1-62 from Block 4 (21.4 and 25.5 seeds/L, respectively), each representing the Kenosewun level. Samples were collected in areas with higher charcoal, fire cracked rock, ceramic sherds and faunal remains, which during the excavation were proposed to be possible hearth features. In contrast, low seed densities were present in soil samples collected from surrounding units from the same level. The high concentration of floral remains in Blocks 3 and 4 in units that contained ephemeral evidence of hearth features supports the interpretation that these features are probably hearths.

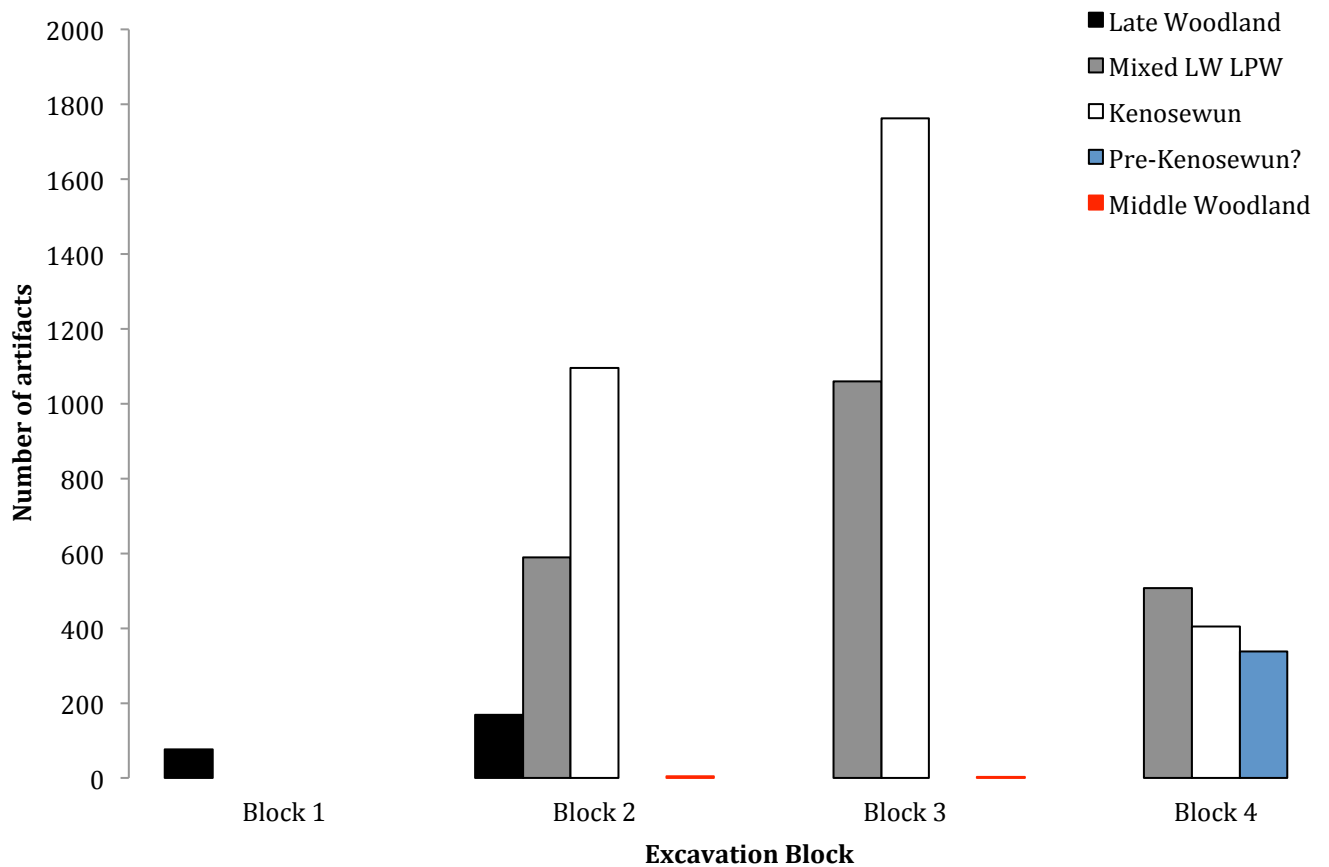


Figure 1: Distribution of total artifacts and ecofacts for each cultural horizon by excavation Block, excavated during the 2016 Field School at Lockport Site (EaLf-1).



Bone spatula (M1795)
Block 3 272N 547E 28cm DBD
J. Jordaan 2017



Bone pin (M1409)
Block 3 273N 546E
Image McKay 2016



Knife River Flint projectile point/
knife Block 2 252N 549E (M1400)
Image Lakehead 2017

Figure 2: Bone spatula, bone pin, and Knife River Flint projectile point/knife recovered from Lockport Block 3 and 2, respectively. Bone tools were associated with the mixed Late Woodland/ Late Plains Woodland- Kenosewun occupation; the KRF point/knife was associated with the Late Palins Woodland- Kenosewun occupation.



Figure 3: Representative sample of ceramic rim sherds recovered from Late Woodland and Late Plains- Kenosewun and Pre-Kenosewun contexts at the Lockport site (EaLf-1), June 2016 field school excavation. The majority of rim sherds collected from excavation blocks 2 – 4.

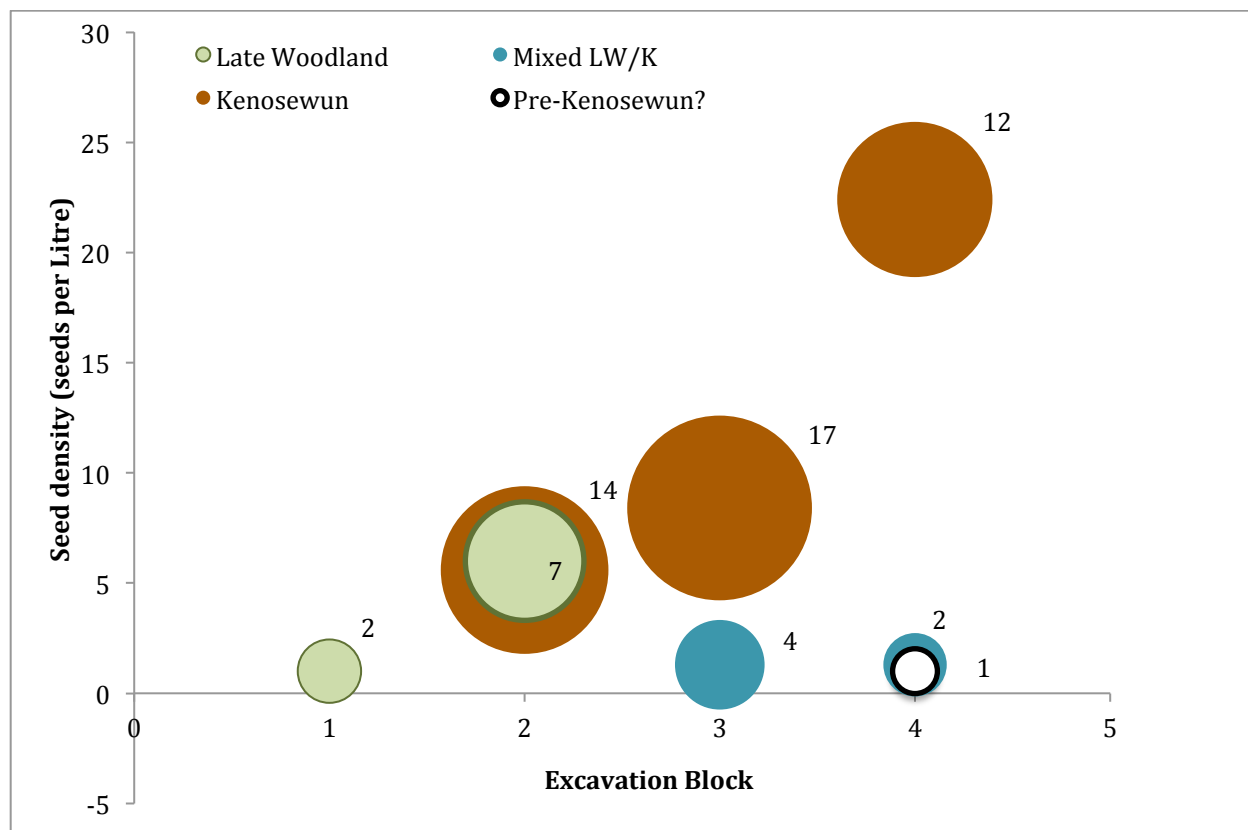


Figure 1: Seed density of carbonized seeds associated with cultural occupation levels for each excavation block from the Lockport site (EaLf-1). Soil collected during the June 2016 excavation. Bubble size indicates number of plant taxa identified from processed samples associated with each cultural occupation.

References Cited

Halwas, S. and M. Paxton-MacRae

2017 Initial Plant Remains Report for the Lockport site (EaLf-1) 2016 excavation.

Unpublished manuscript, on file with the University of Manitoba, Winnipeg, MB.

Halwas, S., E. L. Syms and G. Monks

2017 Excavations at the Lockport Pre-European Village Site: University of Manitoba Field School May 30 – June 24, 2016. Unpublished manuscript, on file with the Manitoba Museum, Winnipeg, MB.