

**ARCHAEOLOGY AT
LANSDOWNE IRON WORKS
NATIONAL HISTORIC SITE**

Wrap-up of Lyndhurst archaeology 2017.

This is to congratulate all who contributed to, and/or took part in the first phase of archaeology at Lansdowne Iron Works National Historic Site.. We took in \$17,200 in cash donations, and 548 +/- person-hours on the part of volunteers. THANK YOU ONE AND ALL.

After waiting six months, we learned in July that our application for cost sharing with Parks Canada was denied. We were disqualified on the grounds that the site was partly on private property. The wording in the application was that we were not allowed to apply “on behalf of an individual”. Since there was no “behalf” accruing to the owner of the property for allowing us to dig there (thank you John Sideris), I thought we were OK, but what they meant, and didn’t say, was that anything on private property was ineligible

Thus reduced to half the anticipated project, we decided to proceed with the investigation on the east side of the river (the private property), in hope of being able to apply to Parks Canada next year for work on the public property. Despite these changes in plans, and the late call for payment, only 3 pledges were not forthcoming.

We engaged Past Recovery Archaeological Services Inc. for 6 days of field work (more than half of the 2-weeks originally planned) and commenced work the day after Labour Day. Five staff members worked with between 6 and 12 volunteers each day in the field, plus 3 to 5 volunteers in the lab. The spirit of cooperation and accommodation on the part of volunteers and staff alike, was a pleasure to be part of. The experience of PRAS staff with public archaeology projects was apparent from the beginning.

So here’s what you missed, or took part in, as the case may be.

The path from the street down to the water is made of clay, and steep and slippery, with a dangerous cross-fall which threatens to dump you into a four foot deep washout. To avoid this hazard, I spent Labour Day weekend building a gang plank that bridged the washout and carried people safely past the steepest and most precarious part of the slope. Sure enough, we had rain showers on days 3 and 4, which delayed work only slightly, but turned the clay slope to

soap. Because of the rain, men from the Ministry of Natural Resources came and opened the dam, raising the water adjacent to the dig, and partly submerging the bear, which had been on dry land for the previous 2 weeks.

Eight one-meter square pits were begun around the perimeter of the foundation of the 1881 Harvey grist mill, and in the area of the “casting floor” of the smelter. Of those, four were subsequently doubled and one tripled in size. In addition, a pit was dug within the foundation, where we encountered huge boulders and had to be abandon the effort. A new pit, two meters by two meters, was opened inside the foundation, which was big enough to expose and manually remove several boulders the weight of a man. It was sunk to about 5’ depth before it too came to a dead end among the boulders. This was the location where we hoped to reach bedrock and discover the footprint of the smelter. It is a mystery why this area would have been inundated with boulders, imported at great effort, for no obvious reason. Two stone interior bearing walls in the mill were built on top of the boulders, indicating that they were there prior to 1881. At some future stage, we need to return to this pit armed with a hoisting mechanism to remove stones and allow us to get down to bedrock. In the end, the pits totaled 19 square meters.



The pits on the casting floor.

In most cases, digging was done with small mason’s trowels. Material was placed in pails and then screened in a swinging frame of 8mm screen. This let the fine material pass and caught everything over 8mm in size, which was then scrutinized for anything that looked man-made. The keepers were placed in bags labelled with the pit number and the strata number and sent to the lab. These incidentals mostly indicated the age of each strata as we went deeper.

By the second day, 4 of the pits on the casting floor had reached the strata of the iron works period. This was determined by the products of the furnace which were encountered, such as slag, and in one pit, a layer of unidentified iron-bearing product within 6 inches of the surface. It has since been suggested that this product is raw “bog iron”, bound for the smelter. An assembly of stones in another pit may be a footing for a structural post of the casting house.

Three pits at the street level on the east side of the mill foundation, were enlarged in search of evidence of the loading bridge, on which wheel barrows would have carried iron ore, flux, and charcoal to the top of the furnace stack to dump into the furnace. No evidence was found there.

On Day 5, four crew members undertook to bring the “Bear” from its resting place in the shallows of the stream, to the top of the slope. A second, smaller piece of the bear, was extracted from the river bank and also recovered. We wrestled the biggest piece onto a 2-wheeled dolly in a horizontal position, and 2 men hefted the handles off the ground while another forced it forward with a pry bar. The route to the bottom of the ramp required moving stones and bridging holes with planks. We even had to bridge one of the excavated pits to complete the journey. Then a block and tackle was rigged to a tree at the top of the hill and the dolly was drawn up with a truck. The dolly was wider than the gang plank, and had to navigate the clay path with the precarious cross-fall. Of course, it slipped sideways into the washout, and in prying it back up onto the path, we bent the wheels and frame of the dolly (sorry Ed). From that point we dispensed with the block and tackle and pulled it directly with the truck to the street level. A strong looking tractor arrived (thanks John Wright) to carry it to the storage garage, but did so limited by the fact that it could only lift the bear 100 mm off the ground. The smaller piece was raised on another dolly with the block and tackle but without the need for the truck. By day’s end, both pieces of the bear were safely in John Sideris’s garage.

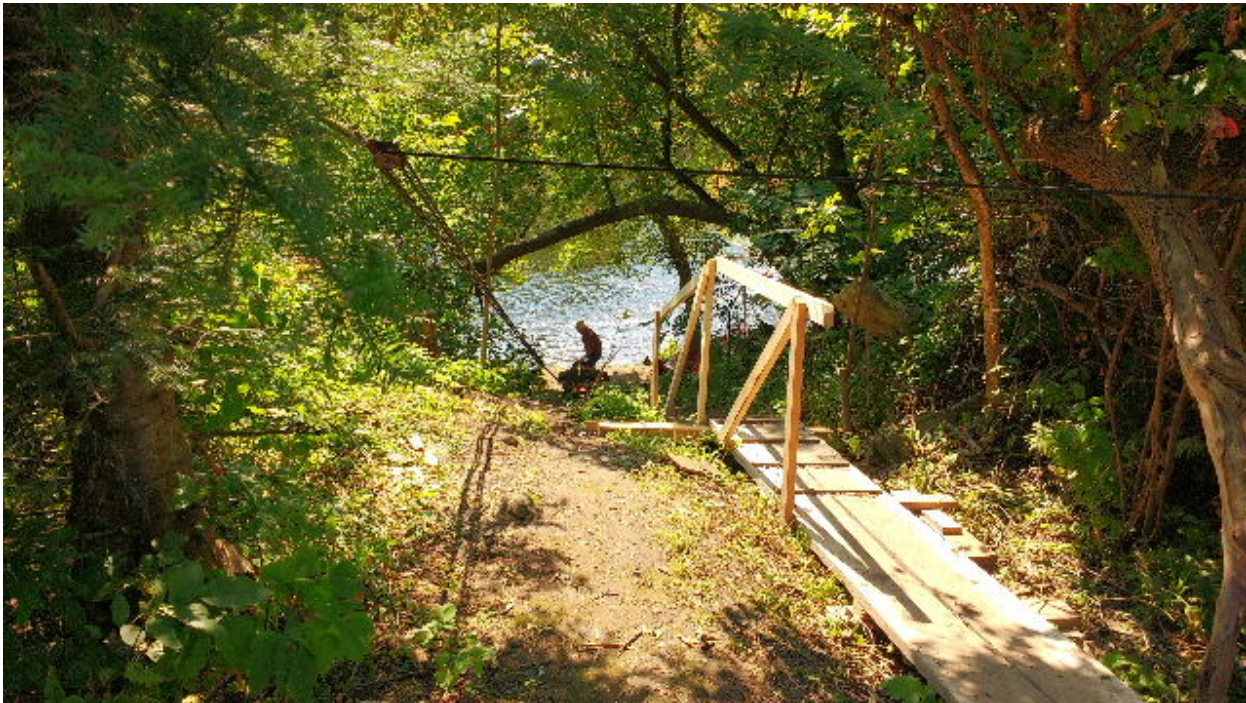
Meanwhile, beginning on Day 2, another crew of volunteers in John Sideris’s Outdoor Education Center washed and categorized and photographed the findings from the previous day. Of the 5,000 items collected, the most common were nails, window glass, and bottle glass. Nails exhibited the full range of technologies from hand forged wrought iron, to cut nails with forged heads, cut nails with machine heads, and modern wire nails. Two coins were recovered; a 1910 silver dime, and an American Lincoln-head penny overstruck with the Masonic Lodge symbol. Ceramics ranged from glazed redware, possibly from the iron works period, to earthenware and china from the mid to late 19th century. In addition, we recovered an incised bone scale from the handle of an early table-fork, a plumb-bob, fragments of clay pipes, a lead seal with the words “GOV. STANDARD”, and a fishnet stocking, the interpretation of which varies with the imagination of teller.

On the seventh day, three staff members and four volunteers returned to complete the recording and backfilling of excavations, and pack up the lab and artifacts so that Turkey Fair activities could proceed.



Meet the 700 lb “bear”.

The bear is the trophy of the 2017 season. It is comprised of once-molten iron, ore, flux, and charcoal, that was the residue left in the firebox of the smelter the last time it cooled. Until now, I have always assumed the bear was formed after they tapped out all the iron and allowing the furnace to cool, in a planned shut-down to reline the fire box with new stone. The volume of pure iron in the bear, however, suggests that it was not tapped prior to cooling, but that it may have cooled unintentionally as the bellows burned, along with the complex of buildings, in 1811. It tells us the size and shape of the firebox in the heart of the 22 ft. square stone smelter stack. By luck, it also bears evidence of the location of the tuyere (the inlet of the air blast from the bellows), and the type of stone that formed the lining of the fire box. A bigger tractor was brought in (thank you Thomas Paige) to load the bear onto a borrowed trailer (thank you Ivan Weir) for display at Turkey Fair and a few other events between Sept 16 and Oct 1. It was then delivered to the Old Stone Mill NHS in Delta, where it will be displayed on loan until a permanent home is prepared for it.



Sept 11th: Keith Sly guides the bear as it is pulled up the slope with the help of a truck. The “gang plank” is on the right.

Photo by Amanda Van Bruggen

The 2017 dig ended with successes and disappointments, and emphasized the need for more investigation, which we intend to continue in 2018. The launch of a new fund-raising campaign will be announced in the new year. Until then, enjoy the Christmas season and please plan a generous contribution toward continued archaeology in 2018.

Sincerely

Art Shaw

POSTSCRIPT:

Our experience last year revealed that the Designated Historic Place (the official footprint) of the National Historic Site, is confined to the east side of the river, and that the east side is not eligible for funding because it is on private property. Now we know the west side is not eligible because it is outside the designated historic place. I believe that the complex of mills, furnace and forge occupied both sides of the river, and that limiting the designated historic place to the east bank is a mistake. I have appealed the decision to the National Historic Sites and Monuments Board, they have agreed to consider the appeal, and I have submitted my evidence in writing. If they agree to change the limits of the designated historic place, then by application time next October, we would be able to apply for funding in 2019.