

Excavation Summary for Extra Housepit Excavation 33

Sara Mossop Cousins

Extra Housepit Excavation 33 (EHPE 33) was excavated as part of a roasting pit testing program at Keatley Creek site in 1998 and 1999. It is one of the largest roasting pits identified at the site to date. It measures approximately 7.5 m in diameter across the high points of the rim, while other roasting pits at the site have measured between 2 m - 8 m in diameter. It is located on a terrace to the south of the main village site (Vol. III, Preface, **Fig. 1**). Housepits 9 and 107 are located approximately 60 meters to the north-west. The surface depression is 40 cm in depth at the center and roughly oval in shape. The "debris flow", consisting of a hump of ashy, darkened soil and small pieces of fire-cracked rock, is located along the west side of the poorly-defined rim (**Fig. 1**). It is one of the oldest roasting pits tested at the site to date, with a C14 date of 1540 BP. This places its use squarely within the main Plateau occupation at the site. The high concentration of fire-blackened soil, charred plant material and fire-cracked rock, the large, fire-cracked cobble and boulder accumulation near the bottom of the pit, and the complete lack of bone found during the excavation of EHPE 33, clearly indicate that it was a plant roasting pit.

Excavation and Ground Survey Summary

A non-intensive survey of the ground surface was completed in a 5 m radius of the pit. The artifacts recovered included a trachydacite Kamloops point (which is presumably not associated given the early date of EHPE 33),

several trachydacite flakes (including a small pressure flake and several battered flakes) and a small scatter of 18 flakes, including one made from a multi-colored chert.

A 2.5 m by 50 cm trench was excavated in an east to west direction from near the center of the pit to its western rim (Subsquares A13, A14, A15, A16 and B13, **Fig. 1**). This trench uncovered a portion of a large fire-cracked cobble and boulder feature (Feature 1) located in the center of the pit at approximately 30 -50 cm below the ground surface (**Fig. 2**). The bottom of the pit at the center was located approximately 70 cm below the surface. The pit appears to have been basin-shaped, based on the slope of the sterile till near its western edge (**Fig. 2**). Large amounts of charred wood were recovered from the edge of the cobble feature, some of which was retained for dating and identification. Soil samples were removed for flotation from above, beside, within and below the feature. No bone items and very few lithics were recovered.

A 50 cm by 50 cm subsquare was also excavated in the debris flow hump (Ssq. C13, **Fig. 2**). It was anticipated that the hump would contain charred plant material discarded with the ash and other material removed when the pit was re-opened and cleaned out following cooking events. This subsquare exhibited a high concentration of ash as well as some charred plant material. Several color and textural changes in the ashy deposits may suggest that there was more than one dumping event. Several soil samples were removed for flotation.

Use

The large cobble and boulder feature that was found in the center of the pit is thought to have been the main heating element of the roasting pit. The size of the rocks used, and the size of the pit itself, may suggest that a lengthy cooking time was required, that a very large amount of material was being cooked, or both. There are ethnographic accounts of very large amounts of plant foods being pit roasted (Teit 1900, in Pokotylo and Froese 1983:130) and this may have occurred in prehistory as well. Certain plants are known to have required a lot of cooking to make them edible. For example, Balsamroot (*Balsamorhiza sagittata*) is noted to have required a cooking time of several days (Dawson 1891, and Teit 1900, in Pokotylo and Froese 1983:131).

There is no Balsamroot on the site or near to it today, however. This may be a result of cattle-grazing or other post-occupational factors. Wild onion (*Allium cernuum*) is found at the Keatley site today on the edges of the eastern slopes but wild onion does not require much cooking to make it palatable (Turner 1997:62). Mariposa Lily (*Calochortus macrocarpus*) and Desert Parsley (*Lomatium* spp.) are also found in the site area today, but again, are not known to have required a particularly lengthy cooking time (Turner 1997:65, 85). Other edible root plants that may have grown near the village site on dry, open slopes and in wooded areas include Yellowbells (*Fritillaria pudica*), Wild Carrot (*Lomatium macrocarpum*), Chocolate Tips (*Lomatium dissectum*), Bitter-root (*Lewisia rediviva*) or Wild Thistle (*Cirsium edule*) (Pokotylo and Froese 1983:130). Bulbous plant tissues (unidentifiable as to species), plus 6 seeds (5 *Ericaceae* sp.; 1 *Similacina racemosa*) and some conifer needles were recovered from the flotation samples.

Meat was not normally pit roasted for more than a few hours, and neither was fish (Peters 1999), which suggests that this pit was not used for cooking meat or fish. In addition, no bones have been recovered from EHPE 33 to date. However, meat, berries and lichen were occasionally prepared in cooking pits to flavour bland-tasting roots (Steedman 1930, Teit 1900, Turner, Bouchard and Kennedy 1980, in Pokotylo and Froese 1983:131).

It seems clear that vegetable rather than animal material was being roasted, that the quantity of material was large and/or that the cooking time was lengthy, and that the roasting occurred during the main Plateau occupation of the village. It is also assumed that EHPE 33 was used more than once, given the concentration of fire-blackened soil and fire-cracked rock, and the large debris rim. Other roasting pits tested at the site have demonstrated lower concentrations of these characteristics, although this may also be a result of their smaller size. Depositional processes and the resulting stratigraphy of roasting pits are not well understood at this point and EHPE 33 has not been fully excavated.

Stratigraphic Details

Subsquares A13-B13

The south wall of the excavation trench is profiled in **Figure 2**. The trench passed through the centre of the pit and continued to its western edge.

Stratum I included the soil just below the ground surface down to the cobble feature (0-30 cm depth below surface). It was made up of fire-blackened, dark brown silty loam with small fire-cracked pebbles and flakes of charred wood. The percentage of fire-cracked pebbles rapidly increased

from 10 to 50%, with as much as 25% in the 4-6 cm size range. A few fire-cracked cobbles were located in the first 10 cm level and formed up to 20% of the matrix. Charred wood made up between 0 and 5 %. A large piece of charred wood was recovered from Subsquares 13 and 14 in Square A at approximately 24 cm below the ground surface. This wood was not considered to be root material, based on its flattened shape, its deteriorated state, and its alignment in the ground. This wood was put aside for dating purposes. Subsquare 16 in Square A was located between the cobble feature found in the centre of the pit and the edge of the rim. This subsquare contained a much higher percentage of the 4-6 cm size fire-cracked pebbles, fire-cracked cobbles and charred wood than the other subsquares. This may suggest that the charred wood and other materials were pushed aside from the centre of the pit following roasting in order to remove the cooked plant material. The only lithic artifacts recovered from the pit were located in Stratum I and are limited to several trachydacite flakes, which appear to be accidental inclusions and are likely waste flakes.

Stratum II included the large fire-cracked cobble and boulder feature in the center of the pit (31-50 cm depth below surface). This was referred to as Feature 1 (**Fig. 2**). The large cobbles made up approximately 70% of the matrix at this point. The surrounding soil was especially fire-blackened and charcoal-rich. A few large fragments of charred wood were located just above it, but most of the charred wood came from outside of the feature in Subsquare A16, as discussed above.

Stratum III was located below the large cobble layer (at 51-70 cm depth below surface) and was very similar in content and color to Stratum I, with a slightly lower concentration of fire-cracked rock and charred wood.

No artifacts were recovered from this stratum, other than the fire-cracked rock.

The sterile, yellow-brown, compact gravely till located at the bottom of the pit (70 cm depth BS) was referred to as Stratum IV in the wall profile. This till is assumed to be sterile and was not excavated beyond the first two centimetres, which were sterile.

Subsquares C13

The south wall of the excavation unit is profiled in **Figure 2**. This subsquare was placed in the debris flow. It was not excavated to sterile due to time constraints.

Stratum I consisted of grey-brown sandy loam mixed with ash, small flecks of charcoal and small fire-cracked pebbles. The average percentage of pebbles varied from 10% to 25%. As the excavation progressed, differences in color and compactness were observed that might suggest two separate types of debris in the two halves of the unit. At 20 cm below the ground surface fire-cracked pebbles began to be recovered that were coated in a white substance, which may have been ash. Three trachydacite flakes were recovered from Stratum I, all of which appeared to be waste flakes.

Stratum II consisted of the layer of whitened pebbles that can clearly be seen in the wall profile. The percentage of charred wood increased from approximately 0.5% to 1%. The percentage of ash in the soil also increased. At approximately 33 cm below the ground surface the soil became more sandy and light brown in color, rather than grey-brown. This change does not show in the wall profile and was not assigned a stratum of its own.

Stratum III began at approximately 40 cm below the ground surface and consisted of nearly pure, very fine ash. The percentages of fire-cracked pebbles and charred wood decreased to 20% and 0.5%, respectively. The excavation was closed at this point, due to time constraints.

Discussion and Conclusions

Extra Housepit Excavation 33 is quite large in comparison to roasting pits located at Hat Creek (Pokotylo and Froese 1983) and Scheidam Flats (Peacock 1999); it is also large for a roasting pit at Keatley Creek. It is large in terms of both diameter and depth. It is also old. With a carbon date of 1540 BP it is associated with the main Plateau occupation at the Keatley site and it is contemporaneous with the larger roasting pits at Hat Creek and Scheidam Flats. Together with Extra Housepit Excavation 20, which is also more than 1500 years old and measures approximately 8 metres in diameter, EHPE 33 contributes to the current theory (Pokotylo and Froese 1983, Peacock 1999) that these larger roasting pits were used when the population groups were larger and more complex. It also demonstrates again that the availability of large amounts of plant foods, as well as salmon, may have played a part in allowing these groups to form.

Extra Housepit Excavation 33 appears to have been used on more than one occasion, based on its large debris hump, the apparent lenses of ashy soil within that hump, and the high concentration of fire-cracked rock within the pit itself. It is not yet clear what was being roasted in the pit, but it is fairly clear that it was plant material, rather than animal, based on the size of the pit, its large cooking elements, and the lack of bone artifacts recovered.

References

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1983 Archaeological Evidence for Prehistoric Root Gathering on the Southern Interior Plateau of British Columbia: A Case Study from Upper Hat Creek Valley. *Canadian Journal of Archaeology* 7(2): 127-157.

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1997 *Food Plants of Interior First Peoples*, Royal British Columbia Museum Handbook, UBC Press, Vancouver.

Figures

Figure 1: Extra-Housepit Excavation 33 showing excavation units and surface cross-sections.

Figure 2: Extra-Housepit Excavation 33 floor plan and profile of south wall of excavation trench.

Figure 1: Extra-Housepit Excavation 33 showing excavation units and surface cross-sections.

EHPE 33 - Roasting Pit

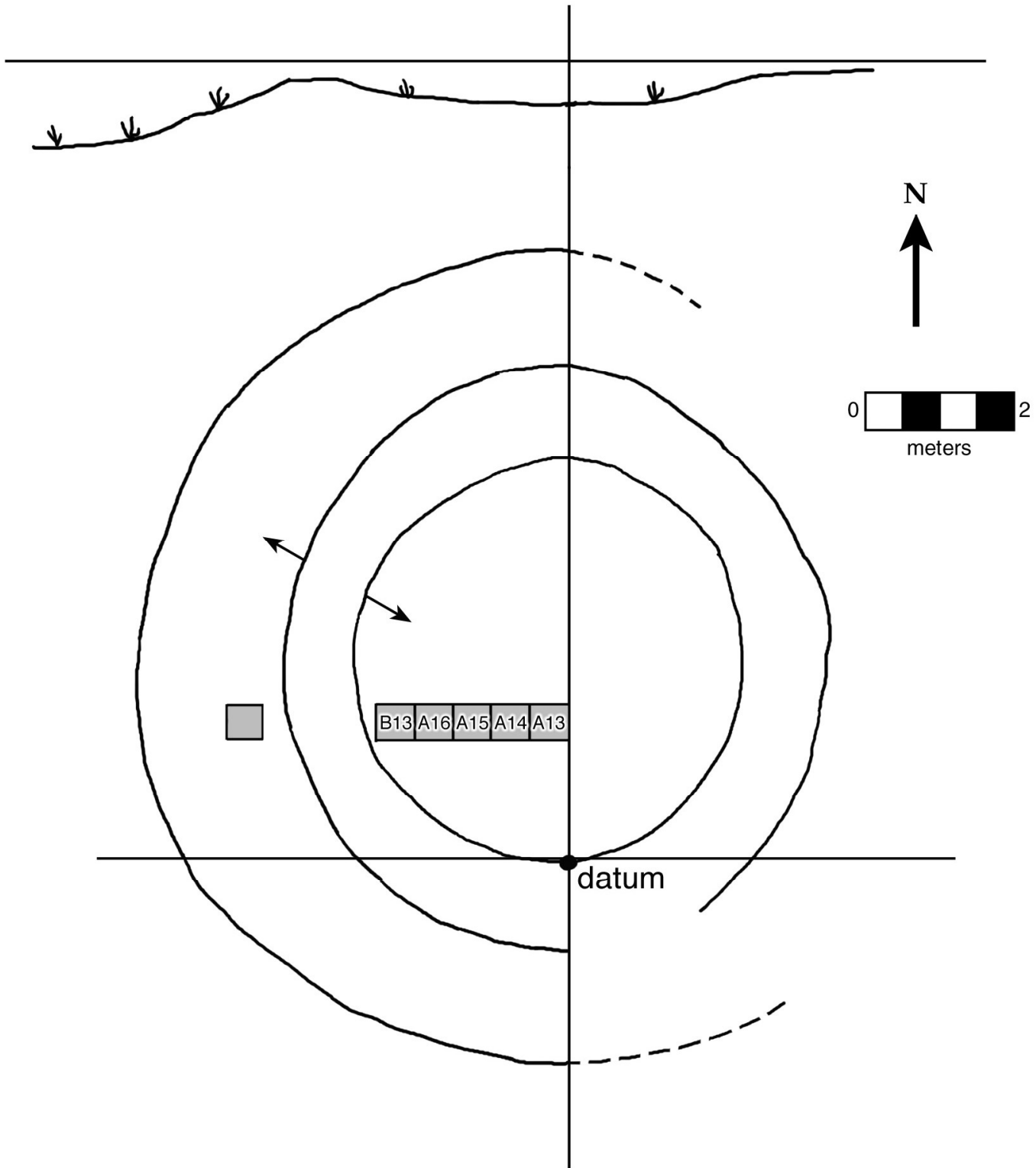


Figure 2: Extra-Housepit
Excavation 33 floor plan and
profile of south
wall of excavation trench.

EHPE 33 - Roasting Pit
South Wall Profile of Excavation Trench

EHPE 33 - C13
South Wall Profile

