

## Analysis of Lithic Assemblages from Extra-housepit Excavations

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While the excavations at the Keatley Creek site focused primarily on cultural depressions over 5 m in diameter, a number of smaller cultural depressions were also tested. In their preliminary reports, the excavators suggested different functions for these features on the basis of their shapes, their contents, and their resemblance to ethnographically recorded dwellings, storage pits, and earth ovens. (See Chapter 11.1, this volume). This chapter will review the conclusions of the excavators in the light of more detailed analyses of the lithic assemblages recovered from these excavations.

### **The Features**

Thirteen extra-housepit features were excavated at the time of this analysis. However, artifacts associated with the original function of these features could only be identified for EHPE's 2, 3, 8, 10, 11, and 12. Artifacts in the other EHPE's were clearly refuse infilling from nearby housepits. EHPE's 8 and 10 were interpreted as food storage pits. EHPE's 3 and 11 were interpreted as small dwellings. EHPE 2 was interpreted as a small hearth and EHPE 12 was interpreted as a large hearth.

### **Analysis of the Lithic Artifacts**

The density of lithic artifacts per liter of excavation, the ratio of chert and chalcedony flakes to all debitage (the exotic flake ratio), and the ratio of modified artifacts to debitage (the tool: flake ratio) were calculated for each of the six extra-housepit excavations considered here. In addition, the modified artifacts from these features were classified according to the typology developed for the analysis of all lithic artifacts at the Keatley Creek

site (See Chapter 1, this volume). In most cases, excavation was by 10 cm arbitrary levels which sometimes overlapped natural strata identified in the course of the excavations. So far as possible, however, the analyses presented here were confined to strata believed to have been deposited during the use or occupation of the feature rather than in the course of cultural or natural infilling. The results of the analyses are summarized in Tables 1 and 2.

### **Storage Pits**

EHPE's 8 and 10, the two extra-housepit excavations which were interpreted by the excavators as storage pits, are distinguished from the other extra-housepit features by very low lithic artifact densities and by the lack of any modified artifacts, except for one retouched flake in EHPE 10. EHPE 10 matches ethnographic descriptions of food storage pits (Teit 1900:198-199) in its form and in the presence of a bark liner. It also contained a large quantity of salmon bones and some mammal remains. The low lithic artifact densities in both EHPE 10 and EHPE 8 reinforce the excavators' tentative interpretation of EHPE 8 as a food storage pit, despite its low volume and unusual shape. Due to its low volume, the excavators suggested that this feature may have been roofed (See Chapter 11.10, this volume).

### **Dwellings**

EHPE's 3 and 11, the two extra-housepit excavations that the excavators interpreted as dwellings, have similar ratios of modified artifacts to flakes and are comparable, in this respect, to larger housepits (e.g., Tool/ flake ratios: floor of HP 3 = .12, floor of HP 7 = .15, floor of HP 12 = .06). However,

the lithic assemblages recovered from these two extra-housepit excavations bear little resemblance to one another in most other respects. EHPE 11, the smaller dwelling, has a lower lithic artifact density than any other extra-housepit excavation except the two storage pits (EHPE's 8 and 10) and contains no exotic lithic materials. EHPE 3, the larger dwelling, has a higher lithic artifact density and a higher proportion of chert and chalcedony flakes to debitage than any other extra-housepit excavation except EHPE 12, the large hearth. Interestingly, the lithic artifact density in EHPE 3 (0.49 artifacts per liter) is the same as that on the floor of Housepit 12, which is more confidently interpreted as a dwelling. Among the types of modified lithic artifacts defined for these analyses, EHPE 3 appears to be rich in utilized flakes and retouched flakes while EHPE 11 is characterized by scrapers and bipolar cores. There are no striking similarities between the assemblages of modified lithic artifacts from these two features.

Larger housepits excavated at this site also exhibited considerable variability in various characteristics of their lithic assemblages (See Vol. II, Chap. 14). So the differences observed between these two features do not preclude the possibility that either or both were used as dwellings. They may, in fact, have housed people engaged in quite similar activities. The two features were only partially excavated and it has been demonstrated that the characteristics of a lithic assemblage can vary considerably in different areas of a housepit floor as well as when sample sizes are very small (See Vol. II, Chap. 14). More extensive excavations of these two features might provide a better understanding of how they were used.

## **Hearths**

EHPE 12, which the excavators identified as a large hearth, stands out as the excavation with highest density of lithic artifacts, the highest ratio of chert and chalcedony flakes to all debitage. EHPE 12 has a very low ratio of modified artifacts to debitage because debitage is so abundant in this feature. EHPE 2, which was interpreted as a small hearth has a fairly high lithic artifact density but is relatively poor in chert and chalcedony flakes and has a relatively high modified artifact: debitage ratio. As for modified artifact types, retouched flakes are unusually abundant in EHPE 2 while EHPE 12 is rich in notches and projectile points. Scrapers represent a similar proportion of the modified lithic artifacts in both features but there are no other striking similarities between these two assemblages.

Mammal bone and charcoal were found in association with both EHPE 2 and EHPE 12, which suggests that both hearths were sometimes used for similar activities, probably the processing of animal carcasses. However, the very high debitage density in EHPE 12 and the high proportion of chert and chalcedony flakes, suggest that some activities occurred there which did not occur around the hearth at EHPE 2. These activities may have been centered around the manufacture of tools. The high debitage density at this hearth is consistent with this interpretation as is the presence of notches which are thought to have been used for working wooden shafts. Also, color changes and fire-spalling which probably resulted from heat treatment were observed in much of the chalcedony debitage associated with EHPE 12.

EHPE 12 is situated on the highest terrace at the site which may have been a ritual zone where the members of hunting parties, probably men, gathered for ceremonies and other activities related to the hunt (See Chaps.

10.13-10.15, this volume). Such an interpretation is consistent with the carcass processing and tool making activities suggested for this feature.

### **Summary and Conclusions**

With the exception of storage pits, which do seem to be characterized by a low density of lithic artifacts, these data do not indicate that each type of feature, that is, hearths, small "dwellings", and larger housepits, has a characteristic lithic assemblage (See Vol. II, Chap. 14 for data on housepits). Examples of these three types of features have overlapping values for lithic artifact density, for the ratio of chert and chalcedony flakes to all debitage, and for the ratio of modified artifacts to debitage. Further, the proportions in which the various types of modified lithic artifacts occur, seem to vary at least as much between features of the same type as between features of different types.

This suggests:

- 1) That each of the of the hearths and small "dwellings" considered here could have been used for quite different activities. For example, EHPE 12, the larger hearth, appears to have been used for some activity which did not occur at the other outdoor hearth, EHPE 2.
- 2) That some outdoor hearths and small "dwellings" may have been used long enough to produce lithic densities equivalent to some housepits.
- 3) Some extra-housepit "dwellings" may have been used for much the same purposes as some larger housepits. In particular, the lithic assemblage from EHPE 3, the larger extra-housepit dwelling seems to be very similar to that from the floor of HP 12 in some respects. Without more extensive excavation and a larger sample of small

“dwellings, however, the possibility that one or both of these two small “dwellings” were constructed for some special purpose cannot be excluded.

It does seem likely that both outdoor hearths were used for specialized activities which represent either a subset of the activities carried out inside housepits or activities which did not ordinarily occur inside housepits, perhaps activities which required large fires.

This brief examination of six small features indicates that lithic artifacts may be as densely distributed in some of the small extra-housepit features as in some of the larger housepits and that their lithic assemblages may exhibit considerable variability. Clearly, identifying a small depression as a hearth or a “dwelling” is only the first step in understanding its function. Further investigation of smaller features at the Keatley Creek site will be important to a complete understanding of the full range of activities which occurred there.

### **References**

Teit, James A.

1900 The Thompson Indians. *American Museum of Natural History Memoirs* 2:4.

**Table 1: Summary of the Analyses of Lithic Assemblages from Extra-housepit Excavations at the Keatley Creek Site, EeR17.**

<b>EHPE proposed function</b>	<b>3 dwellin g</b>	<b>11 dwellin g</b>	<b>2 hearth</b>	<b>12 hearth</b>	<b>8 storage</b>	<b>10 storage</b>
mean surficial diameter of feature (m)	5.00	3.50	1.25	3.00	3.38	4.25
approximate excavated volume (l)	300	971	448	578	685	1358
flakes	135	111	97	459	36	3
flakes/litre	0.45	0.11	0.22	0.79	0.05	0.00
chert, chalcedony, & obsidian flakes	23	1	4	173	0	1
exotic flake ratio	0.17	0.01	0.04	0.38	0.00	0.33
modified artifacts	12	11	17	18	0	1
tool: flake ratio	0.09	0.10	0.18	0.04	0.00	0.33
total lithics (except fcr)	147	122	114	477	36	4
lithic density (total lithics/litre)	0.49	0.13	0.25	0.83	0.05	0.00
whole & chipped/tools	0.41	0.67		0.67	1.00	0.50

**Table 2: Lithic Artifact Types Associated with Small Cultural  
Depressions**

<b>Artifact type</b>	<b>Dwellings</b>		<b>hearths</b>	
	<b>EHPE 3</b>	<b>EHPE 11</b>	<b>EHPE 2</b>	<b>EHPE 12</b>
utilized flakes	5	3	4	6
expedient knives	3	0	7	1
scrapers	1	3	3	4
bipolar cores	0	2	1	2
points	1	1	0	3
notches	0	0	0	2
ornaments	1	1	0	0
piercers	1	1	0	0
bifacial knives	0	0	1	0
hammerstones	0	0	1	0
cores	0	1	0	0
miscellaneous	0	1	0	0
<b>Total</b>	<b>12</b>	<b>11</b>	<b>17</b>	<b>18</b>

  

<b>Artifact type</b>	<b>dwellings</b>		<b>hearths</b>	
	<b>EHPE 3</b>	<b>EHPE 11</b>	<b>EHPE 2</b>	<b>EHPE 12</b>
utilized flakes	42%	27%	24%	33%
expedient knives	25%	0%	41%	6%
scrapers	8%	27%	18%	22%
bipolar cores	0%	18%	6%	11%
points	8%	9%	0%	17%
notches	0%	0%	0%	11%
ornaments	8%	9%	0%	0%
piercers	8%	9%	0%	0%
bifacial knives	0%	0%	6%	0%
hammerstones	0%	0%	6%	0%
cores	0%	9%	0%	0%
miscellaneous	0%	9%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Frequencies and percentages of modified artifact types in lithic assemblages from extra-housepit excavations at the Keatley Creek site, EeR17