

Archaeological Investigations of a Late Holocene Site (35-MU-234) on the Lower Columbia River Floodplain, City of Fairview, Multnomah County, Oregon

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Introduction

- In 2014, WillametteCRA conducted data recovery excavations at 35-MU-234, a precontact archaeological site in Fairview, Oregon.
- The deposits represents some of the oldest radiocarbon dated archaeological materials on the lower Columbia River floodplain, spanning the hypothesized change from mobile foraging to more sedentary, storage-based systems.
- The 35-MU-234 assemblage consists of flaked and ground stone tools, lithic debitage, faunal and macrobotanical remains, fire-cracked rock (FCR), and six subsurface features.
- The stone tool assemblage was diverse and feature content suggest that a wide range of resources were processed and consumed, although a common element was some type of fruit or berry.

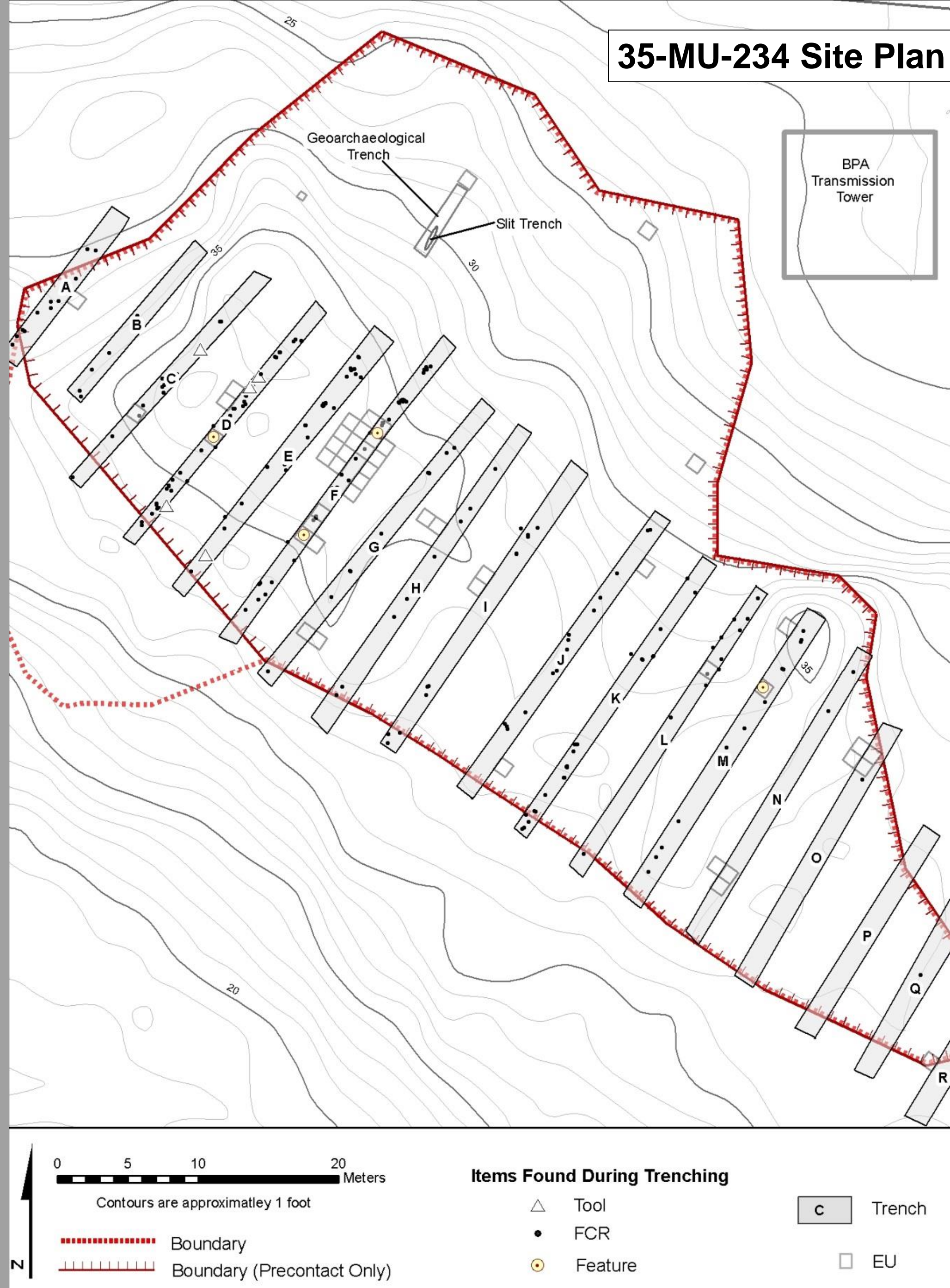


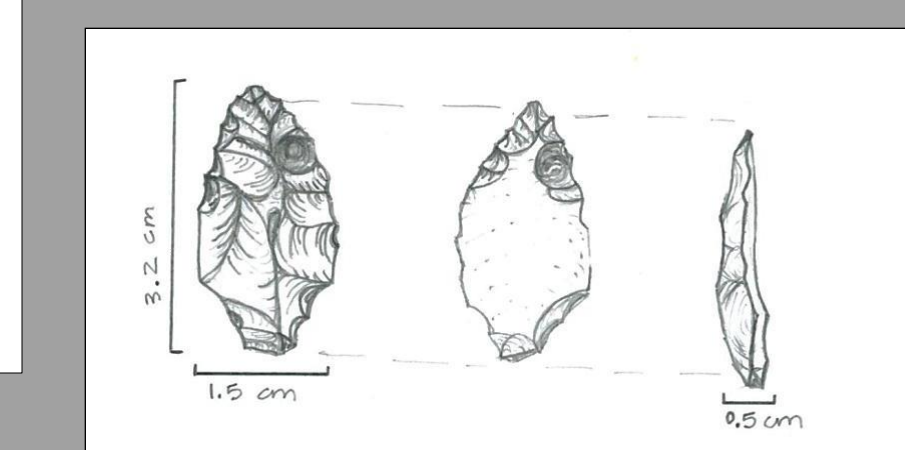
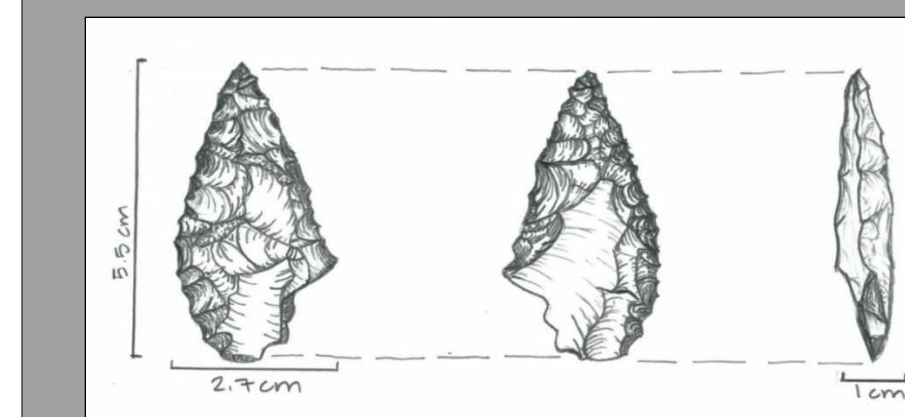
Table 2. Summary of Diagnostic Projectile Points with Estimated Ages.

Lot/Spec	Description	Type ^a	Age
303-1	large leaf-shaped broad neck, shouldered,	6a	older than 1750 BP
56-1	contracting stem narrow neck, shouldered,	5	older than 1250 BP
342-3	contracting stem narrow neck, stemmed or	10	700-1750 BP
406-2	notched narrow neck, tanged,	8 or 10	700-1750 BP
402-3	contracting stem	9	less than 700 BP
231-2	small triangular	13	less than 700 BP
366-2	small teardrop/leaf-shaped	6d	no temporal pattern

^a Type and age from Pettigrew 1977.

Function

- No evidence for robust structures such as plankhouses was found, indicating the site was not a long-term residential site or village.
- The lithic toolkit is moderately rich and even, suggesting a wide range of activities.
- Some segregation of activities may have occurred, with hearths for cooking and possibly heat used more at the site's eastern end and ovens at the west end.
- Features were probably used to cook or process a range of plant and animal resources, although a common element was some type of fruit or berry.
- The lack of *in situ* burning along with well-used FCR suggests that while extensive processing was occurring, the individual processing episodes were somewhat short-lived.
- Tentatively, these features may support an interpretation for some berry steaming as well as longer-term roasting of roots or even meat.



Age

- Site age was based on radiocarbon dates and temporally diagnostic artifacts.
- Radiocarbon results (Figure 1) date the site to between ca. 3,800 and 1,000 years ago, although some projectile points suggest some later use.
- Temporally diagnostic artifacts include six projectile points and three late stage preforms (Table 2).
- Projectile points indicate relatively continuous use after about 3,000 years ago, although the point types have different levels of reliability.
- The presence of peripherally flaked cobbles also suggests a pre-1,750 occupation.
- The most likely period of site use, then, is between about 3,900 and 1,000 years ago.
- Most intensive site use may span 3,900 and about 2,000 years ago, but this is speculative.

Field Methods

Mechanical Trenching

- 16 trenches spaced at 5 m intervals.

- Excavated to immediately below the base of the plow zone between 30 and 40 cm below current ground surface.

- FCR, artifacts, and features were point provenienced.

- Trenching was locally halted when features or possible features were exposed at the base of the plow zone.

- A short trench was mechanically excavated for geoaerchaeological investigation.

Excavations

- 48 excavation units (1x1) and 1 quarter-test unit (50x50).

- 10 percent of each unit was screened through 1/8" mesh.

- The site was divided into three Analytical Units (AUs) based on stratigraphy and distributions of cultural materials.

- Nearly 25 percent of the site was investigated.

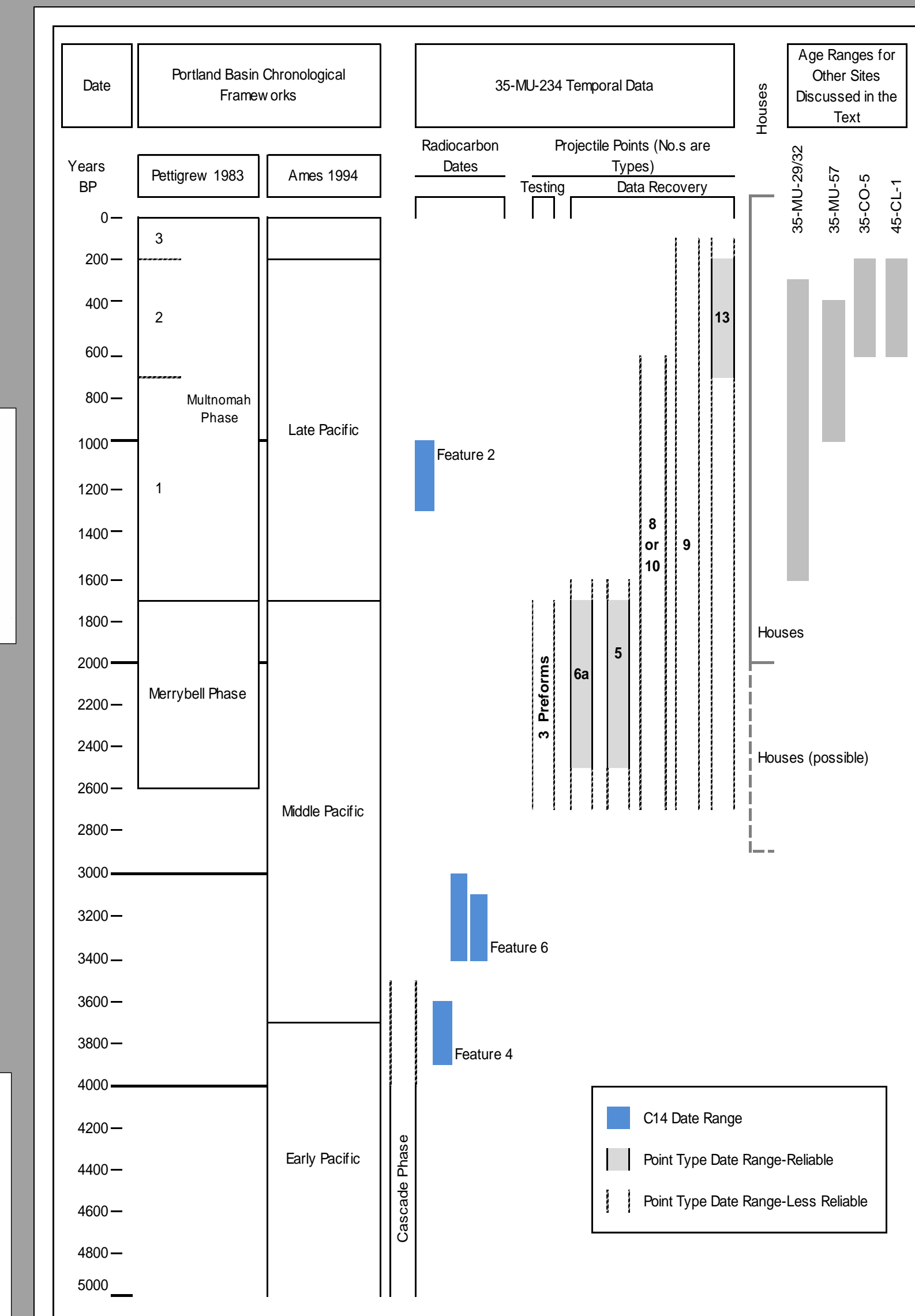
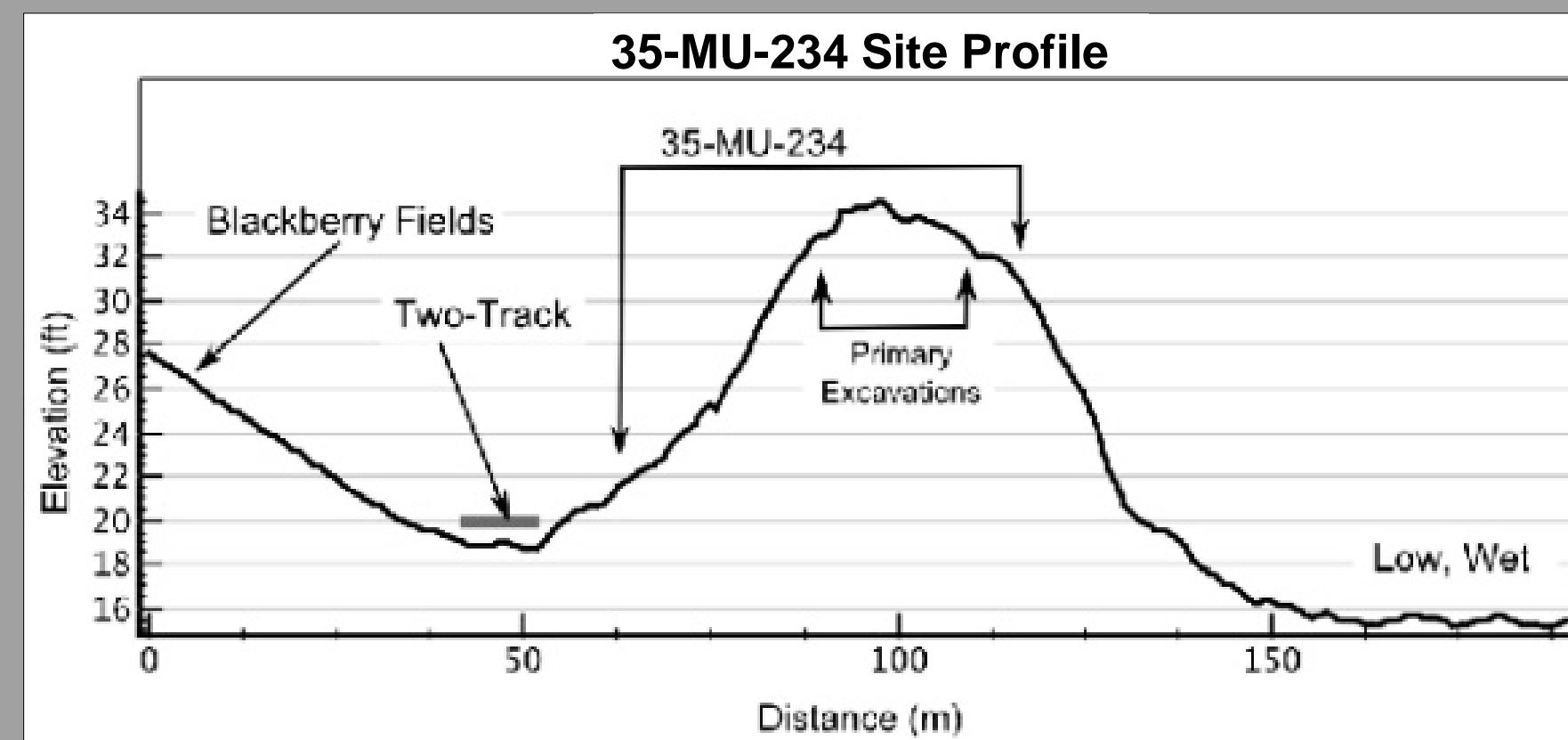


Figure 1. Graphic summary of chronological data from 35-MU-234.

Results

- Approximately 40.75 m³ and 48.25 m² excavated.

- 6 features including ovens, hearths, and cleanouts.

- Lithics
 - 64 flaked and ground stone tools (see Table 1).
 - 796 pieces of debitage.
 - Primarily CCS, with some obsidian, basalt and quartzite present.

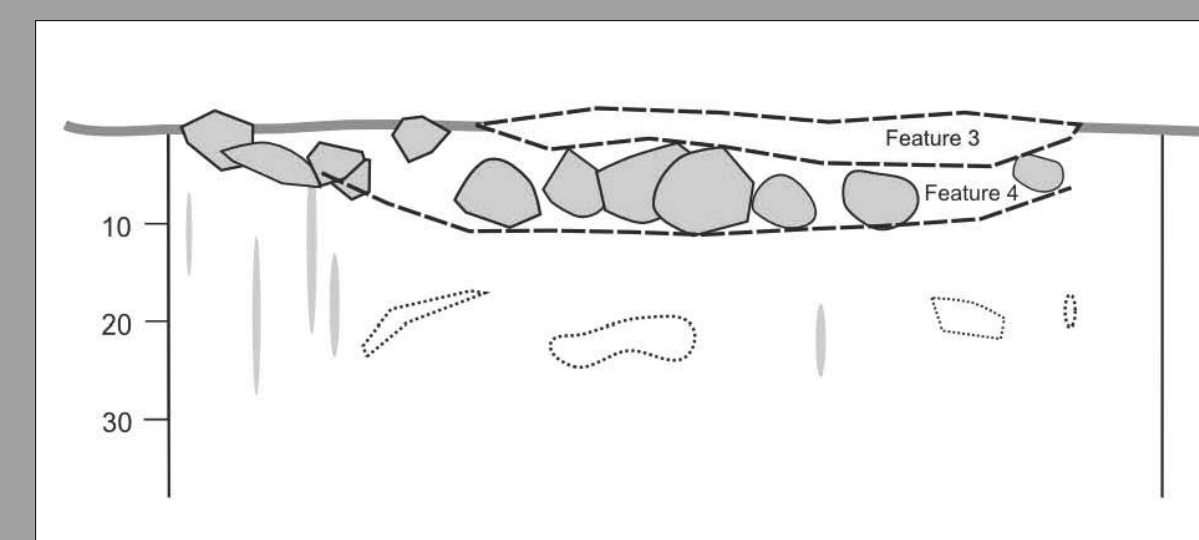
- 1,996 pieces of FCR (5% from features).

- 354 pieces of faunal remains (98% unidentifiable mammal or vertebrate).

- Macrobotanical remains included camas, elderberry, bedstraw, and acorn, as well as, fir, members of the rose family, maple, members of the willow family, oak, and red alder.

Table 1. Lithic Tools by Analytic Unit.

Tool Type	Analytic Unit		
	AU-1	AU-2	AU-3
Projectile Point	-	-	10
Preform Early	-	-	5
Preform Late	1	-	8
Scraper	-	-	3
Flake Tool	2	-	5
Core	1	1	6
Peripherally Flaked Cobble	1	-	2
Chopper	-	1	10
Hammerstone	-	-	2
Ground Stone	1	1	4
TOTAL	6	3	55



Comparison

- 35-MU-234 is probably not part of a classic residentially mobile system like Cascade, but rather reflects the intensification of activities similar to that seen later in the precontact period with well-developed logistical organization.

- The site's assemblage can be compared to Late Pacific period field camps in the Portland Basin, specifically 35-MU-29/32 and 35-MU-26 (Figure 2, Table 3).

- 35-MU-29/32 dates from about 1,500 to 200 years ago (Ellis 1992).
- 35-MU-26 dates to between about 1,800 and 1,500 BP (Becker and Roulette 2003).

- The increased intensity of activities at 35-MU-234 reflects the growing intensification expected as logistical systems developed in the Portland Basin.

- Comparing the site's tool density with several nearby Late Holocene field camps which are probably part of logistically organized systems suggests that 35-MU-234 is similar to these field camps, but with a focus on some type of plant processing, possibly berry processing.

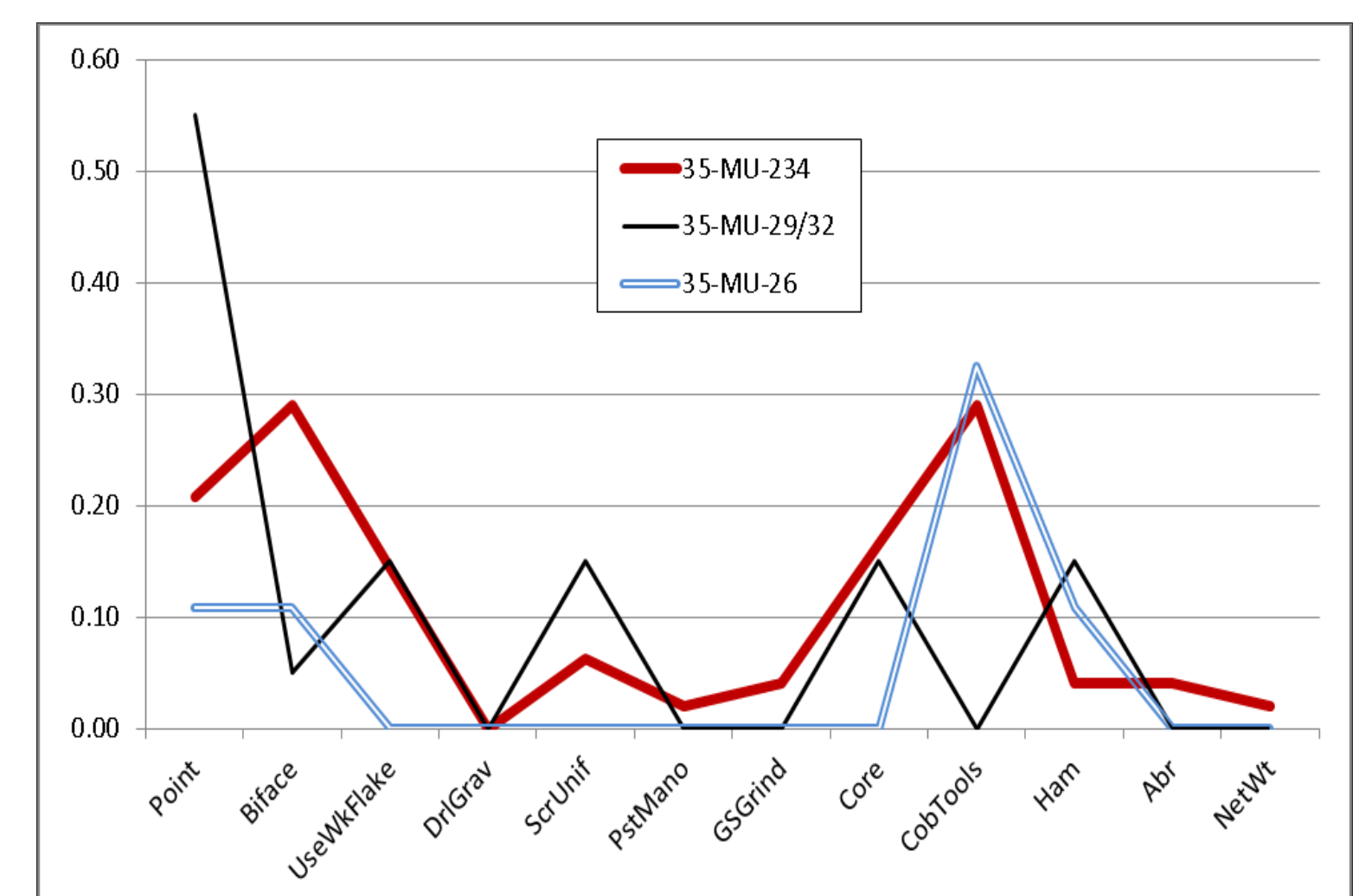


Figure 2. Lithic tool densities from 35-MU-234, 35-MU-29/32, and 35-MU-26.

Acknowledgements

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Table 3. Data Comparisons among Field Camps.

Site	Content			Age			Reference
	Hearths	Ovens	Total Tool Density	Max BP	Min BP	Period	
35-MU-29/32	3	-	1.20	1500	300	Late	Ellis 1992
35-MU-26	1	-	1.85	1750	700	Late	Becker and Roulette 2003
35-MU-234	2	2	1.33	3800	1000	Middle-Late	Solimano et al. 2014