

From Shoreline to Streetscape: Faunal Evidence of Olympia's Early Settler Economy from the Second Street Sheet Midden (45TN519)

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Abstract

Site 45TN519, the Second Street Sheet Midden, represents the first archaeological site in Olympia's original downtown core to undergo systematic archaeofaunal analysis. The site was situated on the Deschutes Estuary shoreline and was sealed beneath three feet of fill during shoreline modification completed in 1909. Periodic tidal influence and acidic midden conditions resulted in exceptional preservation of faunal remains. Although initially presumed to be an Indigenous shell midden, stratigraphic context and artifact associations indicate deposition between ca. 1853 and 1909, coinciding with Olympia's early Euro-American settlement and mercantile development. The faunal assemblage is dominated by domesticated European species, but also includes locally procured wild taxa, including beaver (*Castor canadensis*) and muskrat (*Ondatra zibethicus*). This mixed subsistence profile reflects transitional provisioning strategies characteristic of early settler economies in Washington Territory, wherein hunting, trapping, and trade supplemented locally raised livestock. Butchery marks, element representation, and species selection provide rare insight into early urban meat processing and consumption practices in Olympia, documenting how Euro-American settlers adapted existing regional resources to emerging market systems. The Second Street Sheet Midden thus contributes to broader discussions of colonial foodways, informal economies, and the materialization of settler colonial lifeways in the nineteenth-century Pacific Northwest.

Objectives

The goal of this study was to conduct a zooarchaeological analysis of faunal remains from site 45TN519 to examine early Euro-American provisioning strategies in Olympia, Washington Territory. Objectives included: 1) inventorying all faunal specimens to establish assemblage size (NISP), preservation conditions, and taxonomic diversity; 2) examining taxonomic representation to assess patterns of subsistence and resource selection; and 3) conducting an initial taphonomic assessment, including evaluation of butchery marks, fragmentation, burning, and other surface modifications, to interpret carcass processing and depositional histories. These analyses provide a preliminary framework for understanding how hunting, trapping, and animal husbandry contributed to Olympia's early downtown provisioning economy.



Figure 1. Sketch of Olympia, Washington by James M. Alden, 1857. Location of 45TN519 marked.



Figure 2. Foundation excavation in progress at 45TN519 at high tide, December 2020.



Figure 3. Photos of beaver claws and sheep bone showing preservation condition.

Main Street on the Cowlitz Trail

The *St'áƛčas* village was located on the Deschutes estuary on Budd Inlet, near the terminus of the Cowlitz Trail. Euro-American settlers took advantage of this ancient trade and transportation route that connected people and facilitated commerce across the region, establishing the settlement of Olympia in 1846 just above the intertidal at the end of the Cowlitz Trail (Figure 1).

The Second Street Sheet Midden

Site 45TN519 is an unstratified sheet midden that dates to the 1840s–1900s. The site was capped with dredge fill in 1909. Antiquity Consulting provided archaeological services for a downtown Olympia development beginning in 2019 (Mathews 2020). Construction began in March 2020 with an archaeological monitor present, and an archaeological midden was encountered on the first day of construction. Following testing and data recovery in 2020, mitigation continued through 2023 (Figure 2).

Faunal Bone Taphonomy

Taphonomic analysis indicates multiple depositional and post-depositional processes. Two specimens (3%) exhibit green staining consistent with algal growth, suggesting exposure to waterlogged conditions. Two additional specimens (3%) display adipocere formation, indicating burial in an anaerobic environment. Evidence of scavenging is limited, with two specimens (3%) showing rodent gnawing. Butchery modifications are common. Forty-three specimens (55%) exhibit irregular saw striations, typically located on shaft ends and flat elements, consistent with hand-saw use. Several specimens also display “false starts” (misaligned initial cuts) and breakaway spurs, formed when partially sawn bones were snapped to complete separation. Four saw-cut specimens were recovered from dredge fill deposits, likely representing materials deposited after 1909.

Faunal Species Identified at 45TN519

Faunal remains were identified to the lowest possible taxonomic level and quantified using the Number of Identified Specimens (NISP) (Table 1). Most specimens were fragmented and could not be assigned to specific taxa. Identified remains are dominated by Euro-American domesticates, including sheep (*Ovis aries*), pig (*Sus scrofa*), cattle (*Bos taurus*), and rabbit. Two native species were also identified: a muskrat (*Ondatra zibethicus*) mandible and two beaver (*Castor canadensis*) claws, both taxa associated with the regional fur trade.

Shellfish analysis completed in 2025 identified seven native taxa:

Olympia oyster (*Ostrea lurida*), butter clam (*Saxidomus gigantea*), littleneck clam (*Leukoma staminea*), Nuttall's cockle (*Clinocardium nuttallii*), blue mussel (*Mytilus edulis*), barnacle (*Balanus* spp.), and Lewis's moon snail (*Neverita lewisii*) (Table 2; Mathews et al. 2025). Taxa distribution in the samples was uneven, with Olympia oyster comprising the majority of samples (71% of the total weight, 78% of fragments). Butter clam was also well represented within the samples (23% of the total weight, 14% of fragments). Littleneck clams comprised a minority of the sample (4% of the total weight, 5% of fragments).

Juvenile Bones

Fifteen specimens (19%) were identified as juvenile based on incomplete skeletal development. These elements lacked diagnostic morphological features necessary for confident taxonomic identification. Juvenile status was determined by the presence of unfused or partially fused epiphyses, including visible epiphyseal lines and porous, irregular metaphyseal surfaces associated with active bone growth. In cases where fusion had not yet begun, articular surfaces appeared uneven and poorly organized.

Conclusion

Situated on the waterfront of the early American settlement of Olympia, site 45TN519 reflects the intersection of Indigenous and Euro-American economic practices from the 1840s into the 1900s. While initially appearing precolonial, the assemblage demonstrates the persistence of Indigenous shellfish harvesting and involvement in local and regional markets well into the historic period. At the same time, faunal remains dominated by domesticated species, along with hand-saw butchery marks, point to an emerging settler provisioning system tied to commercial meat production. Together, these patterns illustrate a shared and evolving economic landscape in which Indigenous lifeways and settler economies were deeply interconnected.

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References Cited

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1857 Pencil sketch with watercolor and ink wash. Washington State Historical Society digital collections, <https://www.washingtonhistory.org/research/collection-item/?irn=6120>.

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Table 1. Number of Identified Specimens of non-shell faunal remains from 45TN519.

Taxa	NISP	% of Assemblage
Sheep	8	10.3%
Sheep or Pig	1	1.3%
Pig	1	1.3%
Cow	2	2.6%
Rabbit	2	2.6%
Bird	2	2.6%
Muskrat	1	1.3%
Beaver	2	2.6%
Unidentified	59	75.6%
Total	78	-

Table 2. Weight of identified shellfish species from 45TN519 samples.

Taxa	Weight (g)	% of Samples
Olympia oyster	1247	71%
Butter clam	401	23%
Littleneck clam	77	4%
Nuttall's cockle	10	0.6%
Blue mussel	2	0.1%
Barnacle	1	0.1%
Lewis' moon snail	1	0.1%
Unidentified	21	1%
Total	1760	-

Figure 4. Ratios of non-shell faunal NISP from 45TN519.

