Harpoon Points and Pendants of the Ferndale Site (45WH34)

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Site Background:

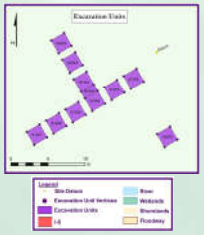
•The Ferndale Site (45WH34) is located in the town of Ferndale in Whatcom County, Washington
•Lies on the active floodplain of the Nooksack river
•Area surrounding the site is rich in floral and faunal resources
•Materials found at site radiocarbon dated between 5,300 and 4,400 years ago (St. Mungo phase, otherwise known as Charles or Mayne phase)
•Sites from this time period typically constitute seasonally occupied hunter-fisher-gatherer base camps where a wide range of resources are utilized (Gillis 2007:10)
•Artifact assemblage of 45WH34 dominated by expedient stone tools, also contains expedient bone, antler, shell and ground stone tools
•Excavation performed by Dr. Garland Grabert and crew from Western Washington University in 1972
•Starting in 2003, multiple graduate students from WWU began reevaluating site materials to gain greater insight into its contributions to Northwest coast prehistory.

Goal of Study:

•Analyze stylistic aspects of bone and antler artifacts from 45WH34 including harpoon points, tooth pendants and bone pendants
  •Identify evidence of processes used to create those artifacts
•Add to the growing knowledge of the Ferndale site through the study of those artifacts that have not yet been analyzed or researched
•Investigate whether the characteristics of these artifacts match what is supposed to be typical of the St. Mungo phase

Methods of Analysis:

•Gather as many resources as possible from sites whose formation coincided with ours
•Gather resources describing the types of artifacts in which we are interested, specifically regarding style and style development over time
•Identify and measure physical attributes of artifacts which will aid in comparison between Ferndale's assemblage and that of other collections (through reading reports on as well as visiting other collections)
•Based on data collected on Ferndale artifacts, hypothesize about how that data does or does not fit into what has been said in the past about harpoon points, pendants and tooth pendants of the area
•Identify possible future research or analyses that can be done on this topic



Harpoon Points:

Classification:

Initially, we examined the artifacts and observed how they were classified using the typology created by Nokes. Then using the scheme developed by Ann McMurdo (1969) in her thesis, we re-classified our artifacts using a more detailed set of criteria.

Findings:

A common theme in the publications was the notion that harpoon style changed abruptly from bilaterally barbed to unilaterally barbed in the Marpole phase. Based on radiocarbon dates we are fairly certain that 45WH34 was formed significantly before the Marpole phase so we would expect to find bilaterally barbed harpoon points with bilateral line guards, such as those found at the Namu site (dated to 3,500-5,000 bp).

While both examples of line attachment in the Ferndale assemblage are bilateral shoulders, supposedly characteristic of harpoon points from pre-Marpole sites like ours, all the harpoon tips are unilaterally barbed. Our only complete harpoon point and line attachment had a combination of unilateral barbs and a bilateral line guard, an artifact which could represent a transitional period of harpoon style. This would be a departure from the suggestion that unilaterally barbed harpoon points appeared abruptly at the beginning of the Marpole phase.

Data:

Cat #	Barb Arrangement	Barb Shape	Base Shape	Line Attachment	Material	Comments
203	high extended isol.	straight	n/a	n/a	antler	
208	high extended isol.	straight	n/a	n/a	antler	attached to 287
235	low inclosed isol.	straight	n/a	n/a	antler	
287	high extended isol.	straight	CPR	bilateral shoulder	antler	attached to 208
359	n/a	n/a	n/a	n/a	antler	possible groove/shine from line attachment? unclear if it is a harpoon point
493	low inclosed dense	convex	n/a	n/a	bone	
505	n/a	n/a	CPR	bilateral shoulder	antler	

Tooth Pendants:

Classification:

Our approach to classification arose out of the inability to find common characteristics in descriptions of tooth pendants in site reports. We recorded the species of origin and element of each tooth pendant as specifically as we could. Other dimensions included types of modification present and type of attachment for use as a pendant.

Findings:

Despite the small size of our assemblage, a few patterns were distinguished. Even though we saw more illustrations of tooth pendants with grooved attachment in our resources, the majority of this assemblage has perforated attachment. The animal most represented in this collection is wapiti (Cervus canadensis) although deer and carnivorous animal teeth are also present. The largest pendant in this collection is from a large carnivore, likely a bear or a sea lion. Many of the tooth pendants in this collection show evidence of bilateral root grinding before perforating a hole. This grinding is visible on all incisor pendants including the possible pendant blank (Cat# 234), suggesting that it does fit into this artifact category.

Data:

Cat #	Animal	Element	Modification	Attachment	Comments
84	carnivore	canine	n/a	grooved	lower right dog canine -nokes
185	carnivore	canine	ground	perforated	drilling -nokes, we observe abrasion and drilling, likely pendant blank
234	wapiti	incisor	ground	n/a	ground like other pendants, but no attachment, possible pendant blank
474	wapiti	molar	split, smoothed	perforated	nokes said it was missing so no info from him, perforation broken but biconical
480	wapiti	incisor	n/a	grooved	fully intact
615	wapiti	incisor	ground	perforated	partial, could have been complete but broken, ground along sides of hole
639	deer	incisor	split, ground	perforated	could have been complete but broken, actual tooth broken, ground along sides of hole

Bone Pendants:

Classification:

Just as with tooth pendants, little investigation has been done on the style of bone pendants. Because there were no standard dimensions apparent in the sparse descriptions of these artifacts, we took a general approach, measuring the length, width and thickness of pendants in this assemblage. Other visual characteristics specific to the assemblage were noted.

Findings:

Despite the similarities in the general form of the assemblage, each pendant displays unique stylistic and technological characteristics. For example, two of the pendants (#284 and #384) are black, presumably from burning. There is not sufficient information to know if this was intentional in creating the pendant or not. Another unique style that is present on two of the pendants is intentional notching. The notching could be decoration or it could be used in addition to the perforations on each pendant for attachment.

Data:

Cat #	Modification	Attachment	Surface	Length (mm)	Width (mm)	Thickness (mm)	Comments
424	ground	perforated	smoothed	28.7	10.8	2.8	oval shape
425	n/a	perforated	n/a	40.8	10.4	3.2	looks like regular bone texture
551	notched	perforated, grooved (?)	striations	33.5	8.8	1.9	
544	ground	perforated	smoothed	31.0	13.0	2.8	nick in top above the hole (broken perforation?)
384	ground	perforated	smoothed	n/a	10.2	1.7	broken cross-wise so no length measurement, black in color
26	notched	perforated, grooved	striations	23.0	12.5	2.4	double hole, one half drilled intact and one broken (originally two holes or one?)
284	ground	perforated	striations	26.5	n/a	3.2	not consistent thickness, black in color
466	n/a	perforated	cancellous, striations	27.0	9.3	3.8	unusual bone texture, can see cardboard-like cross-section

Comparison to Other Collections:

After finding little descriptive information on these artifact types in site reports in the St. Mungo phase, we resolved to visit collections at the Burke Museum. During our visit, we reviewed bone and antler artifacts from the collections from the West Point, Cornet Bay and Fossil Bay sites located in Washington state. While none of these sites are as old as the Ferndale site, they did contain pendants and harpoon points that were stylistically diverse, and thus could tell us a bit more about the Ferndale assemblage.

Not surprisingly, we found no harpoon points in any of the three collections that significantly resembled ours. We did, however, find a tooth pendant from West Point which was quite similar to our artifact no. 615 but from a significantly smaller animal.

Conclusion and Future Research:

Through the analysis of the harpoon points, tooth and bone pendants of the Ferndale site, we seem to have identified an interesting phenomenon in artifact style during a very early time period. This is exclusively based on our observations of the harpoon points.

As archaeology students, this project has also served as a valuable opportunity to develop our skills as researchers. That being said, a more experienced researcher might be able to take this topic much further, especially in the case of pendants which have escaped detailed analysis in the past.

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All pictures and tables are original creations of the authors. Maps created by Kate Ellenberger.

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