NEXT MEETING: With the resumption of meetings this fall, semi-monthly work sessions were instituted replacing the usual monthly meetings. The next meeting will be on Sunday, November 22nd, starting at 2:00 PM. Pot-luck supper at 5:30 PM. Business meeting after desert.

MEETING PLACE: Ted Weld Lome
1752 North 122nd Street
Seattle, Washington

INFORMATION: Ted Weld, Emerson 3-5887
Kay Nelson, East 3-7215

PROJECT: Clean, examine, and classify detrital materials from 45SN33. Classify basketry recovered from 45SN100.

IN THIS ISSUE: TEST EXCAVATION AT WILD ROSE ROCKSHELTER
---David Rice pp 2-23

TWO ATLATL WEIGHTS FROM WASHINGTON STATE
---Del Nordquist pp 24-30
ABSTRACT: Wild Rose Rock Shelter, 45YK39, on the Tieton River in the Snoqualmie National Forest, Yakima County, was tested on a limited scale to determine possible cultural affinities. Fossil vertebrates indicates that this was a seasonal site oriented to hunting. The similarity of the projectile points from this site to those recovered at Wenos Creek suggests that the cultural sequence at Wild Rose fits somewhere between Wenos Creek I and Wenos Creek II and probably postdates 1300 AD. While the site is definitely Plateau, the archaeological problems suggested by its location and relation to aboriginal travel routes would establish a research program the fruition of which would create a prehistoric record where hardly any now exists.

INTRODUCTION

In the closing days of December, 1963, the author was conducting research in the south central Cascades in the vicinity of White Pass (cf. Rice, 1964). These investigations led to the discovery of a small rock shelter on the Tieton River in Eastern Washington, situated in Snoqualmie National Forest lands. The site was subsequently designated 45YK39 according to the Washington State site survey system. Due to its proximity to Wild Rose Forest Camp, the site has been called the Wild Rose Rock Shelter.

On August 10, 1964, application was made to Snoqualmie National Forest, L. C. Barrett, Forest Supervisor, for permission to conduct archaeological excavations on United States Government lands at site 45YK39. The application was authorized by Dr. Richard D. Daugherty, Professor of Anthropology, Washington State University, and made by the author, then Undergraduate Assistant in Anthropology at the same institution. On September 13, 1964, a two man team consisting of Charles M. Nelson and the author began work at Wild Rose Rock Shelter under the general direction of Dr. Daugherty. Excavations there were completed on September 15, 1964.

The site itself is situated in a part of the state which is virtually unknown, archaeologically. No scientific investigations have ever been carried out in the south central Cascades of Washington. The closest site which has been excavated under controlled conditions lies at the mouth of Wenos Creek, ca. 6 miles north of Yakima (cf. Warren, 1959). For these reasons 45YK39 is of significance.

Unfortunately, the site was not as revealing as might have been the case. First of all time limitations hampered our work. Secondly, the shelter was badly destroyed by collectors and what was intended to be a testing operation of a
FIGURE 1. Site Locations & Aboriginal Travel Routes in South Central Cascades, Washington.
FIGURE 2. Wild Rose Rockshelter
(Lower right hand corner.)
relatively undisturbed site turned out to be a salvage operation. As a consequence, our total data are not satisfactorily complete. However, sufficient information was recovered to warrant this published report.

In spite of the above comments, the findings at Wild Rose Rock Shelter provide documented cultural material which will be useful in working out the cultural sequences and chronology of the Cascade Mountain area. In fact, until such a time arises that an undisturbed site in the same region is located and properly excavated, Wild Rose Rock Shelter will provide the only material suitable to this end.

LOCATION AND DESCRIPTION

45YK39 is a rock shelter which lies adjacent to Wild Rose Forest Camp, Snoqualmie National Forest. Specifically the site is situated in the SE 1/4, NW 1/4, Sec. 26, T. 11 N., R. 14 E. of the Willamette Meridian (map reference: U.S. Dept. of Agr., Forest Service, Pacific NW Region, Sept., 1959.) In common terms, the site may be found on State Highway 5 (White Pass Highway) 37 miles west of Yakima, Washington (see map, fig. 1). Elevation is 2,650 feet above sea level.

The site itself rests on the north side of the Tieton under an overhanging rock face of andesite at the base of the canyon (see fig. 2). The shelter faces west, up the Tieton River. The river at this point flows through the opposite (south) side of the canyon ca. 500 feet away from the site. The shelter measures approximately 45 feet wide, 3 to 6 feet high, and 15 feet deep. Its fill consists of alluvium, rubble, and cultural debris. Although the site is within 20 feet of State Highway 5, the mouth of the shelter is obscured by trees and tall grass and is therefore not readily noticed. However, upon examination of the ground surface of the shelter it became immediately apparent that a great many people had noticed the now obscured site. The entire areal extent of the shelter showed signs of recent disturbance by relic hunters.

Two test pits were established at 45YK39 (see fig. 3). The first of these ran from the rear of the shelter toward its mouth in east-west orientation, bisecting the site. Test Pit 2 ran at 90 degrees to Test Pit 1. It extended parallel to the back of the shelter and lay in north-south orientation.

Both test pits demonstrated that disturbance by pot hunters was as deep as it was extensive on the surface. The top 1.25 meters (4 feet) of the deposits had been totally destroyed for scientific purposes. Test Pit 2 was abandoned at a depth of 65 cm. (2 feet), having yielded only broken bottle glass, cigarette packages and gum wrappers. In an attempt to get beneath the disturbed material Test Pit 1 was enlarged to 2.25 meters (7 feet) in length, 1 meter (3 feet) in width, and was taken to a total depth of 2.4 meters (8 feet) below the existing ground surface of the shelter. (The point at which the ground surface intersected the rear wall of the shelter served as our datum). This decision was made in the hopes of obtaining a continuous and well-controlled stratigraphic record from the rear of the site, through its middle (an E-W cross-section — see profile, fig. 4), and down to bedrock. Time limitations in the field prohibited full achievement of this aim. The bottom of the natural deposits was not reached. Cultural material, although sparse at the base of our excavations, was still present and there is the possibility that more cultural material lies at greater depths.

Excavation technique was by shovel in disturbed areas. This material was thoroughly screened (3/8 in. mesh) for artifacts, chipping detritus, and faunal remains, in spite of their shadowy provenience. Where undisturbed material was encountered it was excavated by trowel and then carefully screened. All materials recovered, whether disturbed or undisturbed, were retained.

SETTING

Geographically the Wild Rose Rock Shelter lies in the Tieton River Valley, an ENE-WSW oriented valley in the eastern foothills of the Cascade Mountain Range of south central Washington. The Tieton has its origin near the eastern slopes of Old Snowy Mountain on the crest of the Cascades. It is tributary to the Naches River, which in turn joins the Yakima River, and ultimately the Columbia. As a consequence of its drainage pattern the Tieton forms a natural throughway leading to these passes of the Cascade Divide: Cowlitz, White, and Cispus (see map, fig. 1). The valley throughout most of this distance is quite steep and narrow, extending perhaps 0.2 miles across at Wild Rose Rock Shelter.

In terms of geology 45YK39 is contained in and surrounded by volcanic rocks of Oligocene-Miocene age. These volcanic rocks are characterized by andesite flow breccia, andesite flows, and minor tuff beds; also, some basalt flows and flow breccia (Geologic Map of Washington, Washington Dept. of Conservation, Olympia). The river bottoms consist for the most part of relatively recent (Holocene) alluvium including unconsolidated silt, sand, and gravel; also valley fill with some clay (Ibid.). This alluvium comprises the bulk of the natural deposits at Wild Rose Rock Shelter.

The general area of the site is included in the upper subarea of the Arid Transition biotic zone which lies between the altitudes of 1800 and 3300 feet (Piper 1906: 50). This zone is typified by forests of yellow pine (Pinus ponderosa). Other common plants include ninebark (Opulaster pauciflorus), buckbrush
(Ceanothus sanguineus), rose (Rosa gymnocarpa), huckleberry (Vaccinium macrophyllum), and pinegrass (Calamagrostis saxatilis). Average annual precipitation in the vicinity of the site is 24.5 inches, and the mean monthly temperature ranges from 64 degrees F. in July to 26 degrees F. in January (Ray, 1936: 105).

The faunal life which is characteristic of the timbered subarea of the Arid Transition Zone has been discussed by Dalquest:

The pine forest habitat includes many diurnal species, such as the red squirrel, yellow-pine chipmunk, and Columbian ground squirrel. The white-tailed deer occurs here and, for most of the year, the mule deer. Snowshoe rabbits are usually present. Near rocks the bushy-tailed wood rat is common. Mice are scarce, probably because of the open nature of the surface of the ground. (1946: 36)

Although now extinct over most of their range, mountain sheep were once abundant throughout the eastern Cascades (cf. Thomson, 1962: 2-7). Teeth of what appears to be mountain sheep were recovered from 45YK39. Split and burned deer bone appears to comprise the bulk of faunal remains obtained, however.

ETHNOGRAPHIC DATA

Within historic times the territory in which 45YK39 lies was occupied by the Yakima, a Sahaptin speaking group of the western part of the Plateau (cf. Ray, 1936; Spier, 1936). The closest known village site of the Yakima in this region is reported by Ray.

Mi'ya'wax ("chief"). This was a permanent village located on the upper Tieton River at the place now called Rimrock (Tieton Dam). It was an important center for hunting, fishing and berry gathering. (1936: 146).

Numerous temporary campsites were evidently utilized all along the river and it would appear that the site here under concern is one example of these.

A seasonal round of economic activities characterized the way of life of Plateau Indians (cf. Ray, 1932; Spier and Sapir, 1930; Rice, 1964). This seasonal cycle may be abstracted as follows:

1. March - May. Winter camps were abandoned. Roots and other vegetal foods were intensively gathered and dried. For women, this period represented a peak of economic activity.

2. May - September. Intensive fishing was carried out in the streams of the Cascades. At this time men reached their highest point of economic activity. Mountain resources were also gathered.

3. September - October. Fall vegetal resources were gathered. Preparation was made for winter.

4. October - March. Winter camps were reoccupied. Deer, elk, and mountain sheep were hunted.
Therefore, from the above, the seasonal dependence upon various food resources has formed the framework for this way of life. Even the sexual dichotomy of labor reflects the seasonal pattern, economic duties fluctuating in intensity from one part of the year to another.

Faunal remains from Wild Rose Rock Shelter may provide the best clues as to the nature of the economic activities carried out there (see Table 1). Great quantities of split and burned deer bone were prevalent throughout most of the site. Although a thorough study of the faunal remains was not possible, certain bones and teeth suggest the presence of elk and mountain sheep, as well as deer. This data tends to indicate that the site was used as a temporary hunting camp, and may well have been inhabited during the winter months since game would then be quite easily obtained. When George Gibbs passed through this region in 1853-1854 he commented that "the deer and elk are almost exterminated throughout the country, the deep snows of winter driving them to the valleys, where the Indians... have slaughtered them without mercy" (1855: 404). Besides game animal remains, one fish vertebra was recovered. Since fish were largely obtained during the summer, and fish bones are nearly absent in the deposits, one may conclude that the shelter was largely inhabited during the winter. Numerous large hearth areas in the shelter are also indicators of winter utilization. Therefore, both the economic activities at 45YK39 and the time of year they were conducted may be reconstructed with reasonable certainty.

During the summer months the site was probably used as an occasional overnight refuge from bad weather and may have been used as an overnight stop for travelers enroute to the Cascade summit. Routes leading over the Cascade Divide were extensively used during the summer, in trading with or raiding the peoples of the Coast in addition to routine economic activities. The major routes used are noted in fig. 1 (also confer Rice, 1964). Thus, the site area may be considered in view of these various activities which constituted the way of life of Plateau Indians.

**STRATIGRAPHY**

Three major stratigraphic units were encountered in the course of excavations at 45YK39. The basal-most of these, unit I, (see fig. 1), consists of sand, gravel, and silt. Cultural material is for the most part absent. The breakdown of Unit I is as follows (the following strata correspond to the Arabic numbers in fig. 1 to the right of Roman numeral I):

**Stratum 1.** Alternating lenses of sand and clay containing minute specks of charcoal. Rock was encountered in the east end of Test Pit 1, possibly indicating the proximity of the bottom of the natural deposits. No cultural material was found, but the existence of charcoal may indicate man's presence.

**Stratum 2.** Cross bedded sand and gravel becoming coarse sand in the eastern basal section. No cultural material was found.

**Stratum 3.** Fine sand and silts. Two separate silt lenses contained cultural material (levels 9 and 10 in Table 1). (In the following, any levels pertain to excavation levels. Data on these may be found in Table 1).
<table>
<thead>
<tr>
<th>Level</th>
<th>Stratum</th>
<th>Stone &lt; 1.5</th>
<th>1.5-2.5</th>
<th>&gt; 2.5</th>
<th>Material</th>
<th>Cryptoxil</th>
<th>Sm.</th>
<th>Med.</th>
<th>Lg.</th>
<th>Sm.</th>
<th>Med.</th>
<th>Ig.</th>
<th>No. of Specimen Artif. Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 U I, S3, 4</td>
<td>65</td>
<td>40</td>
<td>8</td>
<td>113</td>
<td></td>
<td>47</td>
<td>53</td>
<td>14</td>
<td>78</td>
<td>79</td>
<td>13</td>
<td>14</td>
<td>12-24, 26</td>
</tr>
<tr>
<td>2 U I, S2</td>
<td>50</td>
<td>3</td>
<td></td>
<td>53</td>
<td></td>
<td>7</td>
<td>13</td>
<td>3</td>
<td>10</td>
<td></td>
<td>4</td>
<td>5</td>
<td>37-41</td>
</tr>
<tr>
<td>3 U I, S1</td>
<td>35</td>
<td>17</td>
<td>3</td>
<td>55</td>
<td></td>
<td>176</td>
<td>59</td>
<td>73</td>
<td>14</td>
<td>68</td>
<td>3</td>
<td>13</td>
<td>2-6, 29-36</td>
</tr>
<tr>
<td>4 U I, S7, 8, 9</td>
<td>22</td>
<td>15</td>
<td>5</td>
<td>42</td>
<td></td>
<td>130</td>
<td>94</td>
<td>23</td>
<td>91</td>
<td>19</td>
<td>4</td>
<td>10</td>
<td>42-51</td>
</tr>
<tr>
<td>5 U I, S6</td>
<td>16</td>
<td>4</td>
<td>4</td>
<td>24</td>
<td>17</td>
<td>4</td>
<td></td>
<td>52</td>
<td></td>
<td>52-56</td>
<td>2 Bird Bones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 U I, S5</td>
<td>3</td>
<td>1</td>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td>12</td>
<td></td>
<td>1</td>
<td>9</td>
<td></td>
<td>1 Fish Bone</td>
</tr>
<tr>
<td>7 U I, S2, 3, 4</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>69</td>
<td>52</td>
<td>20</td>
<td>75</td>
<td>28</td>
<td>6</td>
<td>2</td>
<td>10, 11</td>
<td>25 Charcoal</td>
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<tr>
<td>8 U I, S1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13 Charcoal</td>
<td></td>
</tr>
<tr>
<td>9 U I, S3</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>5 Charcoal</td>
<td></td>
</tr>
<tr>
<td>10 U I, S3</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td>18</td>
<td>7</td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td>1 Charcoal</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>197</td>
<td>83</td>
<td>21</td>
<td>301</td>
<td></td>
<td>470</td>
<td>282</td>
<td>133</td>
<td>335</td>
<td>194</td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

Table 1. Record of Artifacts and Detrital Materials Recovered from Test Pit No. 1, Wild Rose Rockshelter, 45YK39.
The second major stratigraphic break, Unit II, is composed of light yellow brown clay in addition to ash and oxidized soil from hearth areas. The following strata constitute Unit II:

Stratum 1. Light brown clay containing lightly scattered pieces of charcoal and a single bone (level 8, Table 1).

Stratum 2. Brown clay becoming heavily concentrated with charcoal and cultural debris in the west end of the pit. This layer forms part of level 7.

Stratum 3. Light yellow brown clay containing cultural debris. This layer also forms part of level 7.

Stratum 4. Light brown clay becoming a hearth area of white ash, concentrations of charcoal, and oxidized soil in the west end of the pit. This layer along with the preceding two comprise level 7.

Stratum 5. Light yellow brown clay with some cultural material; level 6.

Stratum 6. Light brown clay with cultural material; level 5.

Stratum 7. A complex of hearth areas consisting of white and gray ash, oxidized soil, and charcoal. There is much cultural debris. This layer forms part of level 4.

Stratum 8. Brown clay with cultural material. This layer also forms part of level 4.

Stratum 9. Light yellow brown clay with cultural material. This layer plus the preceding two layers form level 4.

The uppermost stratigraphic break consists primarily of loose loam, sand, and pea gravel. It is entirely cultural. The following strata compose Unit III:

Stratum 1. Loose loam, sand, and angular to sub-angular pea gravel including some rubble. In the east end of the pit this becomes predominantly coarse rubble and pea gravel with much mammal bone intermixed. This layer forms level 3.

Stratum 2. Loose loam, sand, and angular to sub-angular pea gravel. This layer forms level 2.

Stratum 3. This "stratum" includes two intrusive pits into the deposits. Judging from what was found, or rather, what was not found, these pits appear to be old "pot holes" created by enthusiastic collectors. The loam, containing some ash, was badly churned.

Stratum 4. This "stratum" represents an area totally destroyed by diggers who quite evidently made no attempt to excavate according to any organized scientific method. As a result of this tragedy the cultural sequence in the top 1.25 meters (4 feet) is entirely lacking. On the north side of Test Pit 1 the disturbance extended to a depth of 1.65 meters (5.4 feet). Despite these circumstances all disturbed areas were screened for artifacts and level data were recorded (see Table 1).
Figure 4. Profile of South Face, Test Pit No. 1, 45YK39
PLATE 1. Diagnostic Artifacts from 45YK39.
Artifacts which have some diagnostic value appear in Plate 1. The letters beneath the artifacts correspond to the artifacts' stratigraphic placement in the profile in fig. 4. They are also placed in approximate sequential order. Only in the case of artifacts a, b, and c in stratum 4 of Unit III is the provenience questionable. The remainder of the artifacts appear in the profile about where they were actually recovered from undesiccated midden.

**ARTIFACT INVENTORY**

A total of 59 artifacts was recovered from Wild Rose Rock Shelter. For ease of presentation these have been grouped into categories of chipped stone and worked bone. The complete breakdown is as follows:

**CHIPPED STONE**

**Projectile Points**

The point classification used here will be essentially the same as that used by Claude Warren at Wenas Creek because of the close similarity of the artifact forms and because of the consequent ease in comparing the points from each site. Where points are fragmentary estimates have been made as to their original dimensions.

**Style Sl.** Barbed shoulder corner notch (1 specimen, see Plate 1, fig. j).

- Specimen number: 48
- Length: ca. 3.3 cm.
- Width: 1.8 cm.
- Thickness: 0.4 cm.
- Outline: modified triangle
- Cross-section: lenticular
- Edges: straight
- Base and stem: corner notched, barbed shoulders, rectangular stem with diagonal base.
- Material: chalcedony
- Provenience: excavation level 4

**Style SlO.** Columbia Valley corner notched (8 specimens, see Plate 1, figs. d, e, k, o, p, q, r, and s).

- Specimen numbers: 37, 40, 54, 45, 46, 9, 10, and 11
- Length: 1.6 to 2.8 cm.
- Width: 1.3 to 2.2 cm.
- Thickness: 0.2 to 0.4 cm.
- Outline: modified triangle
- Cross-section: lenticular; plano-convex
- Edges: straight (3), convex (4), concave (1)
- Base and stem: corner notched with shoulders varying from straight to long barbed. In three specimens the stems are expanding with a rounded base; in one specimen the stem is rectangular. The remainder of the points have fragmented stems.
Material: chalcedony (4), chert (3), opal (1)
Provenience: excavation levels 2, 4, 5, 6 and 7.

Style SII. Small, straight shouldered points (3 specimens, see Plate 1, figs. m, and n).

Specimen numbers: 56, 43, and 44
Length: 1.7 to 2.0 cm.
Width: 1.1 to 1.5 cm.
Thickness: 0.4 cm.
Outline: modified triangle
Cross-section: lenticular
Edges: convex
Base and stem: corner notched with straight shoulders and rectangular stem. One specimen has a slightly expanding stem.
Material: chalcedony (2), quartz (1)
Provenience: levels 4 and 5

Style TII. Non-stemmed, triangular with straight base (1 specimen, see Plate 1, fig. b).

Specimen number: 22
Length: ca. 2.5 cm.
Width: ca. 1.7 cm.
Thickness: 0.3 cm.
Outline: triangular
Cross-section: lenticular
Edges: straight
Base: straight
Material: agatized wood
Provenience: level 1

Style T5. Triangular side notched (1 specimen, see Plate 1, fig. f).

Specimen number: 41
Length: ca. 1.5 cm.
Width: ca. 1.5 cm.
Thickness: 0.2 cm.
Outline: modified triangle
Cross-section: lenticular
Edges: straight (?)
Base & notches: concave base, finely chipped. Notches are located 0.7 cm. from the base and are 0.2 cm. wide and 0.2 cm. deep.
Material: chalcedony
Provenience: level 2

Unclassifiable fragments. (7 specimens)
Specimen number: 19
Description: Point mid-section
Material: chalcedony
Provenience: level 1
<table>
<thead>
<tr>
<th>Specimen number</th>
<th>Description</th>
<th>Material</th>
<th>Provenience</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>point tip</td>
<td>andesite</td>
<td>level 1</td>
</tr>
<tr>
<td>23</td>
<td>point tip</td>
<td>opal</td>
<td>level 1</td>
</tr>
<tr>
<td>36</td>
<td>point tip</td>
<td>chalcedony</td>
<td>level 3</td>
</tr>
<tr>
<td>38</td>
<td>point tip</td>
<td>chert</td>
<td>level 2</td>
</tr>
<tr>
<td>39</td>
<td>point tip</td>
<td>opal</td>
<td>level 2</td>
</tr>
<tr>
<td>55</td>
<td>point mid-section</td>
<td>chalcedony</td>
<td>level 5</td>
</tr>
</tbody>
</table>

**Scrapers**

**Side Scrapers (5 specimens)**

<table>
<thead>
<tr>
<th>Specimen numbers:</th>
<th>32, 49, 52, 53, and 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length:</td>
<td>2.0 to 3.7 cm.</td>
</tr>
<tr>
<td>Width:</td>
<td>1.6 to 2.6 cm.</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.4 to 0.7 cm.</td>
</tr>
<tr>
<td>Outline:</td>
<td>generally parallel sided with irregular ends</td>
</tr>
<tr>
<td>Cross-section:</td>
<td>irregular</td>
</tr>
<tr>
<td>Material:</td>
<td>chert (1), blue green obsidian (1), chalcedony (3)</td>
</tr>
<tr>
<td>Provenience:</td>
<td>levels 3, 4, 5 and from disturbed area.</td>
</tr>
</tbody>
</table>

**End Scrapers (2 specimens)**

<table>
<thead>
<tr>
<th>Specimen numbers:</th>
<th>16 and 51</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length:</td>
<td>1.6 to 2.8 cm.</td>
</tr>
<tr>
<td>Width:</td>
<td>1.5 to 1.7 cm.</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.4 to 0.7 cm.</td>
</tr>
<tr>
<td>Outline:</td>
<td>ovoid</td>
</tr>
<tr>
<td>Cross-section:</td>
<td>plano-convex</td>
</tr>
<tr>
<td>Material:</td>
<td>chert (1), chalcedony (1)</td>
</tr>
<tr>
<td>Provenience:</td>
<td>levels 1 and 4.</td>
</tr>
</tbody>
</table>
Core Scrapers (4 specimens)
Specimen numbers: 2, 3, 29, and 33
Length: 3.7 to 4.7 cm.
Width: 1.5 to 3.5 cm.
Thickness: 0.7 to 1.9 cm.
Outline: irregular
Cross-section: irregular
Material: chert (2), chalcedony (2)
Provenience: level 3

Irregular Scrapers (4 specimens)
Specimen numbers: 12, 17, 57, and 59
Length: 3.5 to 4.6 cm.
Width: 2.3 to 3.8 cm.
Thickness: 0.7 to 1.3 cm.
Outline: irregular
Cross-section: irregular
Material: jasper (2), chalcedony (1), seam agate (1)
Provenience: level 1, disturbed area

Utilized Flakes (8 specimens)
Specimen numbers: 6, 18, 26, 27, 31, 34, 35, and 58
Length: 1.2 to 2.6 cm.
Width: 0.7 to 2.0 cm.
Thickness: 0.2 to 0.5 cm.
Outline: variable
Cross-section: irregular
Material: jasper (1), andesite (1), chalcedony (6)
Provenience: level 3, level 1 - disturbed area

Knives (2 specimens, both are fragmentary)
Specimen numbers: 14 and 50
Length: 2.3 to 2.7 cm.
Width: 1.6 to 2.4 cm.
Thickness: 0.4 to 0.5 cm.
Outline: triangular
Cross-section: lenticular
Material: chalcedony (2)
Provenience: levels 1 and 4

Pebble Tools (2 specimens)
Cobble
Specimen number: 1
Length: 1.4 cm.
Width: 1.2 cm.
Thickness: 0.2 cm.
Chipping: unifacial with work on both ends so that the artifact may be used reverseably.
Material: andesite
Provenience: surface
Specimen number: 42  
Length: 5.9 cm.  
Width: 4.5 cm.  
Thickness: 2.2 cm.  
Chipping: unifacial on a split cobble  
Material: andesite  
Provenience: level 4

**Miscellaneous Chipped Stone (2 specimens)**

Description: rectangular shaped water worn stone with small indentations in both ends and in one side.

<table>
<thead>
<tr>
<th>Specimen number:</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length:</td>
<td>3.5 cm.</td>
</tr>
<tr>
<td>Width:</td>
<td>1.2 cm.</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.5 cm.</td>
</tr>
<tr>
<td>Material:</td>
<td>andesite</td>
</tr>
<tr>
<td>Provenience:</td>
<td>level 1</td>
</tr>
</tbody>
</table>

Description: triple flow (red, black, and transluscent) obsidian chip

<table>
<thead>
<tr>
<th>Specimen number:</th>
<th>57</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length:</td>
<td>1.2 cm.</td>
</tr>
<tr>
<td>Width:</td>
<td>0.8 cm.</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.1 cm.</td>
</tr>
<tr>
<td>Material:</td>
<td>obsidian</td>
</tr>
<tr>
<td>Provenience:</td>
<td>disturbed area</td>
</tr>
</tbody>
</table>

**WORKED BONE**

**Worked bone? (fig. g, Plate 1)**

<table>
<thead>
<tr>
<th>Specimen number:</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>fragmentary mammal bone exhibiting two shallow oval shaped depressions which contain parallel striations. It is possible that these depressions were caused by rodent gnawing.</td>
</tr>
<tr>
<td>Length:</td>
<td>4.1 cm.</td>
</tr>
<tr>
<td>Width:</td>
<td>2.5 cm.</td>
</tr>
<tr>
<td>Thickness:</td>
<td>1.4 cm.</td>
</tr>
<tr>
<td>Provenience:</td>
<td>level 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen number:</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>the natural channel of the cannon bone appears to have been deepened by grooving, but could also be natural. The piece is fragmentary.</td>
</tr>
<tr>
<td>Length:</td>
<td>10.5 cm.</td>
</tr>
<tr>
<td>Width:</td>
<td>2.8 cm.</td>
</tr>
<tr>
<td>Thickness:</td>
<td>1.1 cm.</td>
</tr>
<tr>
<td>Provenience:</td>
<td>level 3</td>
</tr>
</tbody>
</table>

Cut Antler

Specimen number: 7
Description: the proximal end of the antler (probably deer) shows small but distinct cutting scars.
Length: 7.5 cm.
Diameter: 1.6 cm.
Provenience: disturbed area

Flattened Bone Rod Fragment

Specimen number: 8
Description: this flattened piece of bone has been rounded at one end and polished on both sides. The other end is broken. It is similar to bone rods found at Wenas Creek (see Warren, 1959, Plate 7 - H-I).
Length: 3.5 cm.
Width: 1.3 cm.
Thickness: 0.6 cm.
Provenience: disturbed area

Splinter Awl (fig. a, Plate 1)

Specimen number: 15
Description: an irregularly split bone which has been sharpened at one end. All edges are well polished. The piece has also been fire burned.
Length: 6.0 cm.
Width: 1.0 cm.
Thickness: 0.5 cm.
Provenience: level 1

Worked Bone?

Specimen number: 21
Description: a fragmentary mammal bone which has irregularly been incised on the rounded surface. This may be due to rodent gnawing.
Length: 3.6 cm.
Width: 1.1 cm.
Thickness: 0.6 cm.
Provenience: level 1

Bone Point Tip (fig. c, Plate 1)

Specimen number: 24
Description: the point is smooth and rounded, but blunt, at the tip. The scars from manufacture are still evident. It has a generally oval cross-section. The piece has also been fire burned.
Length: 1.2 cm.
Diameter: 0.5 cm.
Provenience: level 1

Polished Bone Rod Fragment

Specimen number: 28
Description: This piece is the mid-section out of a bone rod which has been split lengthwise. The piece has also been fired.
Length: 1.6 cm.
Width: 0.9 cm.
Thickness: 0.6 cm.
Provenience: disturbed area

Awl Tip (fig. h, Plate 1)

Specimen number: 30
Description: This piece is well ground and polished, and has been fire-blackened. The point is long, narrow, and sharp. Cross-section is rectangular.
Length: 4.0 cm.
Width: 0.8 cm.
Thickness: 0.5 cm.
Provenience: level 3

Sawed and Incised Antler (fig. i, Plate 1)

Specimen number: 47
Description: This piece is the mid-section of a deer antler which has been cut at either end and has a single, deep, longitudinal groove. The piece exhibits superficial line incisions which run parallel to the groove. The antler itself is rather sharply bowed.
Length: 10.4 cm.
Width: 4.3 cm.
Thickness: 1.8 cm.
Provenience: level 4

(Note: Artifacts bearing the following numbers were recovered from badly disturbed areas and are not assignable to a particular stratum: 7, 8, 27, 28, 57-60. Also, artifact number 25 is non-existent.

DISCUSSION

The sequence of artifacts at 45YK39 exhibits quite close similarity with sequences found at the other recorded sites in this part of the state. Considering the seasonal round of activities of Plateau Indians which was in operation, certain consistencies could be expected. However, the nature of the economic activity at any one site would reflect artifact diversity to a certain degree. This diversity may also be attributed to sexual dichotomy of labor.
In the case of Wild Rose Rock Shelter the economic activity illustrated by artifacts such as projectiles points, scrapers, and associated faunal remains indicate that the site was used as a hunting station and that the game animals were consumed at the site. The presence of awls, knives, and scrapers may show that the animal hides were cleaned, dressed, and manufactured into articles of clothing at the site. From this we obtain a picture of men hunting in areas peripheral to the site, while we see women keeping the fires tended, and engaged in such domestic activities as cooking and making clothing.

The actual sequence of artifacts at Wild Rose may be described as follows:

(a) Cultural deposits from Unit I clearly show that game animals were consumed at this level. However, no artifacts were found.

(b) At the base of Unit II the predominant projectile point style is S10, Columbia Valley corner notched. This style remains abundant to the surface of the undisturbed material at the site. Hearth areas rich in charcoal and faunal remains are also found.

(c) Towards the top of Unit II point styles S11 and S1 make their appearance, the former being more abundant. Point style S10 continues. The greatest abundance of faunal remains and hearth areas occurs at this level. Worked antler also is found.

(d) Unit III marks the introduction of point styles T1 and T5. Point style S10 continues. The quantity of worked bone increases in proportion to the stone artifacts. A bone point tip and two bone awls were recovered. The concentration of faunal remains and hearths continues.

(e) The top of Unit III is missing out of the archaeological record due to the activities of collectors.

At Wenask Creek near Yakima (see fig. 1) Warren (1959) encountered a sequence similar to that reported here. Horizon 3, including Wenask Creek I and Wenask Creek II, is characterized by the introduction of large quantities of small points (1959: 158). Among these are included point styles S10, S11, and T5, with S10 points predominating. For the most part the point sequence at Wild Rose duplicates that at Wenask Creek. Splinter awls and flattened bone rods are common to both sites. On the basis of these similarities, it would appear that the culture sequence at Wild Rose fits somewhere between Wenask Creek I and Wenask Creek II. From this it appears that 45YK39 represents a westward radiation of the sequence found at Wenask Creek.

In further support of this view a small shelter was located by the author at Windy Point, about 10 miles east of Wild Rose Rock Shelter and also in Snoqualmie National Forest. This site has been completely destroyed by collectors, although some pictographs were noted. It was later found that Warren (1959: 188-189) reported the same site at Windy Point on the Tieton, but had not located it. He reports that the site was "excavated" by staff members of the Yakima County Museum and that the artifacts found are now on display at the museum. Most of the artifacts found here duplicate findings at Wild Rose. The dominating point style is S10, the Columbia Valley corner notched. Artifacts found here but not at Wild Rose Rock Shelter include plain triangular points, a tapered stem point, a
Plateau Pentagonal, and a stemmed triangular metal point (European contact item).

Another intersecting association can be drawn with Fryingpan Rock Shelter in Mt. Rainier National Park, the highest known archaeological site in the state of Washington (Rice and Nelson, 1964). This site lies on the eastern slopes of Mt. Rainier just below Fryingpay Glacier (see map, fig. 1). Archaeological materials recovered here indicate close affinities with Eastern Washington. The stone chippings are largely of opal and chalcedony such as is found on the Columbia. Also, a single Columbia Valley corner notched point (S10) was found. The site was only seasonally occupied, evidently with the intent of hunting.

The foregoing data all point to a westward expansion of the cultural sequence found at Wenawes Creek in late times, probably post-1300 A.D. according to Warren's chronology. It is hypothesized here that this westward movement of cultural traits may reflect the annual movement of peoples into the Cascades during times of the year well suited for economic purposes. In a larger sense, this pattern of life may be considered the nucleus of Plateau Culture.

CONCLUSIONS

It has been the prime objective of this study to report the archaeological findings at Wild Rose Rock Shelter in relation to the physical, natural, and cultural environments surrounding the site. Special emphasis has been placed upon relating artifacts and associated materials to a total way of life. Finally, the cultural sequence represented at the site has been compared with other sites in the same geographic area.

From the data obtained at 45YK39 the following broad conclusions have been drawn:

(1) Wild Rose Rock Shelter was utilized as a temporary hunting campsite and therefore represents only a portion of a total way of life. This total way of life is characterized by seasonal movements of population in pursuit of natural resources necessary for life sustenance.

(2) The cultural sequence at Wild Rose represents a western manifestation of the same sequence present in Horizon 3 at Wenawes Creek. The antiquity of this sequence probably post-dates 1300 A.D. Neither the extent of western expansion of this cultural complex nor its origin is definitely known, but elements of this complex have been found on Mount Rainier.

Taken together, these two conclusions provide a basic understanding of the evolution of Plateau culture during the Late Period and up to historic times.

In closing, the importance of this area should not be underestimated. Problems relating to the growth of Plateau culture, the origin of various point styles, the movement of culture traits from the Coast to the Interior and vice versa, all remain unclarified. Many of these problems can be answered only by more extensive scientific work in mountain areas, especially in our National Forests. Now is the time for this research to be conducted, before future road construction and the activities of collectors destroy those resources still existent.
It is therefore recommended that a government sponsored program be established which would provide, or would aid in providing, for the following:

(1) A detailed archaeological survey of Snoqualmie National Forest which would locate and describe all prehistoric sites within that area.

(2) Selective testing of archaeological resources documented by the survey in step 1.

(3) Complete excavation of sites which have been tested and show promise of yielding sufficient data to aid in reconstructing the prehistory of the south central Cascades.

(4) Provision for publication of significant findings.

(5) Provision for a permanent display of the artifacts recovered from such a program after research studies have been conducted. This display would be placed in the custody of the National Forest for the purpose of public education and information.


Such a program as that outlined above could quite easily be carried out by one of the state universities, or by the Washington Archaeological Society backed by one of the universities. In any event, the financial support of the National Forest Service would be essential.

ACKNOWLEDGEMENTS

The author is indebted to the following individuals and groups without whose help this project would not have been possible. Dr. Richard D. Daugherty, Washington State University, authorized and supported the project. Mr. Charles M. Nelson, Washington State University, assisted in excavation of the site and in profile drawing. Mr. C. G. Nelson prepared the figures and photographs for publication. Members of the Washington Archaeological Society washed and catalogued artifacts, and also recorded level bag data. Finally, the National Forest Service, Snoqualmie National Forest, is to be thanked for their co-operation and interest.

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TWO ATLATL WEIGHTS FROM WASHINGTON STATE

Delmar Nordquist

ABSTRACT: Two atlatl weights from Western Washington, the provenances of which have been authenticated, are illustrated and described in detail and in terms of the typology proposed by Osborne and Butler. The need for a revision in this typology is discussed on the basis of problems encountered in classifying the two new specimens. The atlatl materials being brought to light by their accidental discovery points up the need for the research required to eliminate the hiatus of archaeological data necessary to understand and correctly assess their use and distribution.

The incidence of the atlatl in the Pacific Northwest was securely established by the actual find of a throwing stick shaft dredged up in a fisherman’s net at the mouth of the Skagit River. This remarkably carved wooden piece was first reported by H. C. Taylor and W. W. Caldwell in 1954, Vol. 19, No. 3, American Antiquity. In the later issue of the same journal, Vol. 25, No. 2, B. Robert Butler and Douglas Osborne presented a compilation of data on atlatl weights. The latter article, "Archaeological Evidence for the Use of Atlatl Weights in the Northwest", established a plan for weight typology.

The Butler-Osborne types:

Type I had a flat base with a single, transverse perforation at or near the midsection. Two variants were determined, Ia was more or less hemispherical, usually plain, but occasionally having an end-to-end groove on the top; Ib was a sculptured, zoomorphic form.

Type II was an elongated stone with a more or less flat (never hollowed) base that tapered slightly upward at both ends. The ends were also tapered, usually with a single transverse notch across the top of each end. The weights were usually hemispherical in cross section.

Type III had slightly concave or convex bases with a wide longitudinal basal groove and excursive sides. The ends were blunt or flat. The top may be flat or concave between the edges, curved downwards to the ends. Longitudinal grooves might be found along the top, sides, and even the bottom. A latitudinal groove sometimes cut across the longitudinal. The authors subdivided this type into four subdivisions. IIIa was generally loaf shape with one groove around the middle section. IIIb, typified by only one example, had a dome-like midsection with tapered ends, one of which terminated in a slightly flattened and up curved end. The weight had a groove across the center as in the previous subcategory and a wide, shallow, basal groove. IIIc resembled Type II, but was shorter and thicker. It had a flat base and a top with excursive sides that tapered to nearly pointed ends. Type IIId was primarily a blocky, shapeless form resembling IIIa with the typical three-quarter groove, but with a nipple formed on one end.
According to the above classifications, both examples introduced in this paper would fall into Type I. The Bernard example being Ia and, if we accept representationalism as a basis of subdivision, the Beatty would be Ib. It is the intent of this paper not only add the description of two, heretofore, unreported weights to the literature on the subject, but to suggest a reclassification.

**THE BERNARD ATLATL WEIGHT (Plate I)**

Formerly in the possession of William Bernard of Seattle, this weight is the only one reported to date that has been found within the confines of the city of Seattle. More singularly, it was one of a pair. Neither is now in the possession of the original owner, one having been sent to the Smithsonian Institution about eight years ago and the other, discussed here, was given to the Klee Wyk studio in Nisqually.\(^1\)

While digging in an old stream bed in the 2200 block of East McGraw Street, the two weights were discovered within 10 feet of each other. The soil was typical of the Montlake district, composed of forest deposited humic debris and some fill on the upper level, and of glacial clay and silt beneath in which the two weights were found. No evidence of a burial or other association was observed.

The weight was of steatite with proportions that gave it a boat-like appearance. The base extended only beneath the central part and was essentially flat, although a slight convexity was observed. The body tapered from end to end, somewhat flattened beneath and definitely flattened on both ends at right angles to the longitudinal axis. One of these had regularly spaced grooves decorating the lip, the other, less carefully grooved, had a few marks which appear to have been decorative complements of the opposite end, but lacking care in spacing and execution. Both ends were ground and smoothed with a circumferentially grooved ring about 1/4 the distance toward the central mass. There is little doubt that the separating and raising of the ends above the base was intentional. A transverse perforation extended through the lower midsection, just above the base, commencing with a wide mouth and tapered sharply within the stone; hence, meeting a similar entry made from the opposite side.

Emory Strong has reported on atlatl weights along the Columbia River in the April 11, 1958, issue of *Screenings* for the Oregon Archaeological Society. He emphasized the circumstance of paired weights, of which the Bernard example belongs, in the following quotation taken from his article:

"A significant feature is that of the 120 or so weights found, 80% were found in pairs, and in one case four and in another three were found together. The pairs might be two stone, one stone and one galena, or two galena weights.

Figure 2 shows a pair of weights found in association with copper. The drawing is to scale. The copper is being analyzed to see if

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1 An attempt is being made to relocate the stone, determine its weight and present ownership.
PLATE I Bernard Weight
it is native or trade metal. Results are not yet available.

*** The pieces lay in such a manner that the copper and weights could have been attached to the same stick.***

Figure 3 shows two galena weights in situ. The picture is taken vertically. These two weights were heavily encrusted with corrosion hence the fuzzy appearance. Each is lying on its side, in opposite directions. The tips are one inch apart and a straight line parallel to each base is 2 1/2 inches apart.***

On the western edge of this site there was a large cremation pit, the bottom of which was baked hard from the heat. In this hard soil Dr. Bergen uncovered the tops of a pair of weights, one stone and one galena, and kindly let me trowel them out. These two weights lay on their sides, nearly parallel with the ground, the tips five inches apart, and the bottoms parallel. The stone one was encased solidly in the baked soil but the lead one was encased all around except at the bottom.***

Figure 4 shows a weight that has evidence of being wrapped in matting or fiber. I did not discover this pair in situ but saw them in the screen where they lay side by side just as they fell from the shovel. The other one of the pair was clean and shiny. This brings up an interesting conjecture, was one tied to an atlatl and the other wrapped and laid beside it?***

After the flood of 1948 a pair of weights (figure 5) was found by LeRoy Norton on Fountain Bar, a heavily occupied area starting at the mouth of Rock Creek and extending two miles upstream.***

Strong's article also described multiple finds, some of which may have been paired. Butler and Osborne conveniently classified and tabulated the evidence.

**Table 2. Associated Pairs of Atlatl Weights**

1. Type III, stone (216 grams) with Type III, stone (210 grams).
2. Type I, galena (168 grams) with Type III, stone (181 grams).
3. Type I, galena (76 grams) with Type III, stone (170 grams).
4. Type I, galena (96 grams) with Type I, galena (116 grams).
5. Type III, stone (199 grams); Type IIIa, stone (283 grams); Type IIIa, stone (298 grams).

These four were found together but cannot be separated into pairs because no record was kept of their relative locations. 1

The significance of paired weights indicates that they may have been hafted together on one atlatl shaft, or buried together as grave goods. Some may not have been hafted, as suggested by Strong, but carried as spares among the accoutrement of the hunter in normal hunting practice. Unless some special mortuary significance was attached to paired weights, those found in graves were probably a reflection of living customs.

1 Butler and Osborne, 1959. P. 221.
PLATE II  Beatty Weight
THE BEATTY ATLATL WEIGHT (Plate II)

Roe Beatty, father of the present owner, Danny Beatty of Anacortes, discovered the carved effigy atlatl weight on their farm near Custer, Washington. The stone came to light while the elder Beatty was plowing a field near California Creek. It still bears a scar cut by the plowshare.

According to Butler and Osborne, the weight is Type Ib, since it was carved in a reptilian representation, suggestive of a newt. The head was set apart at its base from the body by double grooves and constriction which suggest a cowl. There are two oval eyes and a widely grooved mouth extending across the lower part. The body was gradually humped and tapered to a point at the tail. Three longitudinal grooves followed the contour of the back from neck to tail. A transverse perforation extended through the stone, roughly chiseled from both sides as in the Bernard weight. The flat base was restricted to the central part of the body.

Compared, the Beatty weight resembles the Bernard in its overall proportions of length and width; the latter, however, has a more prominent central bulge. Both taper toward the ends, projecting over and beyond the base which acts as a pedestal. Lashing holes are formed similarly, extending inwardly from both sides until they break through. In both instances the bases are essentially flat on the lower face.

Strong reports another example1 similar in basic form. It is representational as can be seen in his article and again in Figure 1, detail f, of Butler and Osborne. As Type Ib, this and the Beatty weight typify this subdivision since they were zoomorphic carvings. To our eye, the Bernard weight is non-representational and falls into the Ia classification. Although the Type I division seems adequate enough, the subtype Ib is too arbitrarily based on representationalism. Either a third division needs to be established or a clarification of the present two through formal and technological classification.

The basic features of Type I seem to be (a) an oval mass with a more or less flattened base, (b) a transverse perforation for lashing, and sometimes (c) longitudinal grooves which may have had some function. These features vary.

In its simplest form the mass appears to have been developed from a half cobble, to a faceted and sometimes grooved weight. The length was usually about twice as long as the width, tapered from end to end, and always flattened on the lower face. That these stones occasionally were ornamented, even to suggest zoomorphic representations, seem incidental. As a piece of art they are priceless; as an expression of power and meaning to the aboriginal owner they may have been deeply significant.

An analysis of the form of the two weights described with that of Strong referred to earlier, indicate all are Type I. They belong in one subdivision, not by reason of their decoration, but by their formation. The tapered, central mass is there. So is the transverse perforation at the midsection. The singular manufacture of a pedestalled base with the attendant projection of the extremities above and beyond the base suggest a definitely new form; yet maintaining

1 From the Ernest Cowles collection.
the weight's mass, hence its actual weight; its balance, therefore symmetry; and a functional system of hafting which would smooth the base for fitting the shaft and a transverse perforating for securing the lash. In classification, although a stone represented some actual or mythical creature or was decorated for purely aesthetic reasons is immaterial.

A revision of Type I would include Ia as already established by Butler and Osborne. However, it would include any decorated or representation weights maintaining the basic form. Ib would include only pedestalled pieces as described above, plain or ornate.

Table of details of the weights discussed:

<table>
<thead>
<tr>
<th>WEIGHT</th>
<th>LENGTH</th>
<th>WIDTH</th>
<th>HEIGHT</th>
<th>WEIGHT</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bernard</td>
<td>12.1 cm</td>
<td>4.2 cm</td>
<td>5.7 cm</td>
<td>199 grams</td>
<td>Steatite</td>
</tr>
<tr>
<td>Beatty</td>
<td>12.1</td>
<td>3.2</td>
<td>3.8</td>
<td></td>
<td>Steatite</td>
</tr>
<tr>
<td>Strong (Cowles Collection)</td>
<td>10.6</td>
<td>3.5</td>
<td>3.5</td>
<td>199 grams</td>
<td>(Stone)</td>
</tr>
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