Archaeological Reconnaissance
SOUTH-CENTRAL CASCADES
By David G. Rice

WASHINGTON ARCHAEOLOGICAL SOCIETY
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FRONTISPICE.

The Eastern Foothills Looking Towards Horse Heaven.
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ABSTRACT

Archaeological reconnaissance in the south-central Cascades yielded 32 sites, 28 of which are recommended for further work. Evidence from test excavations, surface indications, and private collections suggests that most of these sites belong to the Cayuse phase which dates from the last 2000 years and relates to the ethnographic pattern of life of Plateau peoples. Some materials were encountered which are thought to be antecedent to the Cayuse phase, possibly dating as early as 3500 years on comparative grounds. In addition, a new projectile point style is reported from the south-central Cascades -- the "Packwood tapered stemmed" point. Finally, the importance of the reconnaissance is that it relates to many key problems in Northwest prehistory and shows considerable potential for future archaeological research.
ACKNOWLEDGMENTS

The writer is indebted to Dr. Richard D. Daugherty, Professor of Anthropology, Washington State University, who supported this study. Research funds were derived from the Graduate School, Washington State University, Fund 161-01-10C, Budget 2482, Project 785.

Mr. Click Relander, Yakima, provided many historical insights and was of invaluable aid in suggesting ethnographic contacts. In addition, the writer gratefully acknowledges the support and material assistance given by Mr. and Mrs. Relander while in the field.

The Yakima Tribal Council, Toppenish, Mr. Toni Skahan, Chairman (1966), authorized the writer to travel in the western part of the reservation and to conduct archaeological excavations.

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The following members of the Washington Archaeological Society, Seattle, assisted the writer with test excavations: Mr. C.G. Nelson, the Delmar Nordquist family, and Mr. Ted B. Weld.

Many individuals contributed freely of their time and knowledge. These are as follows: Mr. Gernot Klussmann, Edmonds; Miss Martha Hardy, Seattle; Mr. Robert B. Jim, Wapato; Mr. Ken Leggett, Seattle; Mr. Charles M. Nelson, Berkeley, California; the John Putnam family, Bellevue; Mr. Earl Robbins, Fort Simcoe; Mr. Alex Saluskin, Wapato; and Mr. and Mrs. Abe Parker.

Finally, the writer acknowledges the kind hospitality and cooperation of the many collectors of Indian artifacts encountered during the survey: Dr. and Mrs. Harold Bergen, Yakima; Mr. and Mrs. Harold Grubenhoff, Sunnyside; Mr. Charles Hall, Yakima; Mr. and Mrs. Herb Klasse, Packwood; Messrs. Charles and Vernon Mitchell, Sunnyside; Mr. W. E. Newland, Yakima; Mr. B.C. Newland, Wenatchee; Mr. George Newland, Moxee; Mr. Harry Siler, Randle; Messrs. Bill and Dale Stoltenow, Tieton; and Mr. Dale Swedberg, Ellensburg.

Technical assistance in preparing this report was provided by the following persons: Mr. C. G. Nelson, St. Paul, Minnesota; prepared Figure 1; Mr. Albert Deane, Seattle, provided enlargements of rough drafts for preparation of Figures 2A and 2B; Mr. Barney S. Flora, Richland, drafted Figures 3-6 and retouched Plates 9-12; Mr. Harvey S. Rice, Laboratory of Anthropology, Washington State University, prepared the prints for Plates 6-12. Finally, Dr. John C. Sherman, Chairman, Department of Geography, University of Washington, kindly permitted the use of cartographic equipment to prepare preliminary drafts of the figures.

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The cover was prepared by Mr. Barney S. Flora, Richland, and is an adaptation of the famous petroglyph from The Dalles region, Tsagilgalgal, "She Who Watches."
INTRODUCTION

The area investigated by this reconnaissance covers about 4000 square miles, ranging from Naches Pass in the central Cascades to Mount Adams in the south central Cascades, from the Kittitas and Yakima valleys in the east to the river valleys of the Cowlitz and Cispus in Western Washington (see Figure 1). In the past, only one archaeological survey of any real scope has been conducted within this region, that of Harlan I. Smith (1910). Since Smith's time archaeological work in this area has been nonexistent until the last ten years. Warren (1959) provided the first controlled stratigraphic information with his work at Wenas Creek. Next, a survey and test of sites on the Yakima Indian Reservation was conducted (Weeks 1962), as well as test excavations at a site in the eastern foothills of the Cascades (Rice 1964 b), and a survey and test excavation within Mount Rainier National Park in Western Washington (Daugherty 1965; Rice 1965). Thus, the present problem is one of filling in the hiatus in our knowledge of the intervening areas and establishing their cultural crossties.

Research Objectives

Four objectives were encompassed by this study. These are as follows:

(1) To conduct a preliminary survey of the region between Yakima and Randle.
(2) To perform test excavations at sites in the foothills of the Cascades in Eastern and Western Washington so as to ascertain the nature of these sites and their relationship to sites in the river basins.
(3) To record private collections made within the mountainous area of the Cascades.
(4) To present some framework which can relate mountainous sites to those found in the river basins.

1 Author's note: This paper was written in 1967 and has not been revised except for minor changes in style and content.
1. Umtanum Creek, 45KT101
2. Wenas Creek, 45YK51
3. Parker, 45YK105 & 45YK106
4. Wahtum Creek, 45YK28
5. Hermits, 45KT6
6. Windy Point Rockshelter
7. Wild Rose Rockshelter, 45YK39
8. Rimrock
9. Ikalwil't
10. Packwood Mill
11. Frying Pan Rockshelter, 45Pl53
12. Siler

Figure 1. Location of Important Sites Cited in Text.
THE RECONNAISSANCE

Procedural Frame of Reference

Several written sources provided clues to be examined in the course of this reconnaissance. The most important of these was Verne F. Ray's "Native Villages and Groupings of the Columbia Basin" (1936), which points out some of the major ethnographic sites in the western Plateau and also affords some idea of their pattern of occurrence. Melville Jacobs' "Northwest Sahaptin Texts" (1934) includes native geographic notes which give some notion of the aboriginal settlement pattern in the upper Cowlitz drainage in Western Washington. Father William Bischoff's summary of "The Yakima Campaign of 1856" (1949) notes several historic sites and traditional fishing and root gathering localities. A more substantive aid to the archaeological study was Harlan I. Smith's "Archaeology of the Yakima Valley" (1910), which is valuable for its documentation of sites now destroyed by cultivation, growth of towns, real estate developments, construction of highways, and relic collectors. It was this basically ethno-historical frame of reference, full of intangible leads, that inspired the footwork for the survey.

Coverage of the Reconnaissance

The reconnaissance was initiated by relocating some of the sites reported in the Yakima Valley around the turn of the century by Harlan Smith. These sites included rock-slide graves and cache pits on Yakima Ridge (45YK109), petroglyphs up Selah Creek (45YK125), and cremation rings at the confluence of the Naches with the Yakima River (see Smith 1910 for descriptions and photographs). This was followed by a survey of the Ellensburg Canyon between Selah and Ellensburg, which turned up but one important site (45KT101).

Three ethnographic sites in the Kittitas Valley were examined for archaeological finds. These areas correspond to the Kittitas villages of a'tca, k'ha'ta, na'num (Ray 1936: 143-144). The first two of these were not found due to past flooding and cultivation. At na'num, described as a traditional root gathering locality by Alexander Ross in 1814 (Quaife 1924: 5), an archaeological site (45KT102) was encountered.

Wenas Creek was spot-checked for sites from Selah to its upper headwaters. A site at Ow-hi's gardens (now a historical marker) was totally destroyed by farming. A root digging area and a burial site (45YK111) were discovered intact. Finally, the site of Warren's (1959) excavations was revisited (45YK51).

Selected areas along Cowiche Creek were checked as far as the town of Tieton with little success. Also, several slopes and canyon walls examined along the Naches River between Yakima and the confluence of the Tieton. For the most part, sites on Cowiche Creek and along this stretch of the Naches have been turned under by the plow. Smith (1910: 53) makes reference to a housepit site about 12½ miles up the Naches River from the mouth of Cowiche Creek. I was unable to find a trace of the site.

Several archaeological sites are contained in the valley of the Tieton River from its confluence with the Naches to Rimrock. Most of these are small shelters and campsites bearing little evidence of stratified occupations (see
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**TABLE 1.** Summary of Site Types and Recommendations.  
An "X" mark identifies the proper categories for each site. Total sample equals 32 sites. (*Based on a field crew of four.*)
The valley of the Naches was covered in some detail from the confluence of the Tieton to Nile, and thereafter, spot-checks were made as far as the Little Naches. The character of the sites encountered was essentially the same as those found in the Tieton drainage. One topographical point of difference between the two is the larger number and size of tributary valleys on the Naches. A Land Rover trip was arranged so that it was possible to examine some of the high mountain ridges which separate the Tieton from the Naches. The ridges, ranging from 4,000 to 6,000 feet in elevation, were found to be culturally barren.

With the cooperation of the Yakima Tribal Council a few sites on the Yakima Indian Reservation were visited in the eastern foothills of the Cascades near Fort Simcoe (45YK28, 45YK108). The frontispiece provides a general view of the area. Finally, two housepit sites in the vicinity of Parker were mapped and photographed (45YK105, 45YK106).

In western Washington the survey began a few miles west of White Pass and followed the course of the Cowlitz River. At the confluence of the Muddy and Clear forks of the Cowlitz the ethnographic site of lekalwit was found. At this site a fishing spear eighteen feet long was found leaning against a large Western Red Cedar tree (see Plate 17). Other similar finds near the same site were reported by Rice (1964a). Native informants from the Yakima Indian Reservation described in detail how they fished in this locality 20 to 30 years ago. Some of the older residents of Packwood remember numerous fish drying racks at this site, all of which have now been washed away by seasonal flooding of the Cowlitz. From the confluence of the Muddy fork to the confluence of the Cispus River at Randle a few small sites were reported along the edges of the river valley. Other sites on the floodplain were reported by locals, but evidently have been destroyed by cultivation as they could not be found.

Visits were made to Walupt Lake and Potato Hill in hopes of finding artifacts along the Cascade crest, but heavy overgrowth obscured such finds if they were there. Site survey is more difficult west of the Cascades due to the greater amount of rainfall and accompanying foliage. Therefore, discovery of sites is largely accidental and limited to following areas denuded by highway or dam construction, lumbering activities, controlled burns, and forest fires.

RESULTS OF THE RECONNAISSANCE

In all, 32 archaeological sites were recorded, 29 in eastern Washington, 3 in western Washington. These include six types of sites: open camp sites, housepit sites, rockshelters, burial sites, cache pit sites, and petroglyph/pictograph sites. These sites are identified in Table 1 along with recommendations for further work. Survey forms for the sites listed in Table 1 are on file at the Laboratory of Anthropology, Washington State University, Pullman, for use by qualified persons.

In addition to the sites reported above, over 600 artifacts were recovered from test excavations and surface collections during the survey. These have all been catalogued and are kept in the comparative collections of the Laboratory of Anthropology, Washington State University.
TEST EXCAVATIONS

Test excavations were made at three sites selected according to their geographic provenience. Two of these sites (45YK28 and 45KT101) are located along small streams in the eastern foothills of the Cascades, while the third (45YK51) lies in the upper portion of the Yakima River basin. Test excavations were intended to secure as many artifacts diagnostic of change as possible. In the Columbia Plateau these are principally projectile point assemblages obtained through test excavations are not statistically adequate samples and cannot alone provide a composite picture of the cultural life of past inhabitants of these sites. The assemblages can, however, be viewed from the point of view of the cultural identity and type which they represent. These cultural identities -- phases -- can be related through projectile point styles to the sequences and chronologies established by the River Basin Salvage Program in the Columbia and Snake River drainages, i.e. Cressman and Others (1960), Daugherty and Others (1967), Osborne (1957), Nelson (1966), H. S. Rice (1965), Shiner (1961), and Swanson (1962), among others. The following sections summarize the data obtained from test excavations and attempt to place them into perspective. Detailed artifact descriptions are the task of a future paper.

Excavations at Wenas Creek (45YK51)

The Wenas Creek site is located about six miles north of Yakima at the confluence of Wenas Creek with the Yakima River (see Figures 1 and 3). The site is known historically as a major fishery and winter village of the Yakima (Bishoff 1949). It was recorded and partially excavated by Warren (1959). Warren's work shows the basic similarity of late period Wenas Creek materials to other late period assemblages found along the Middle Columbia River, such as those reported by Swanson (1962) at Vantage or the Washington Archaeological Society at the Hermits site (1958). In addition, Warren reports two earlier occupational zones separated by an extensive sterile layer from the late period assemblages just mentioned. Test excavations at Wenas Creek in 1966 were initiated in hopes of recovering more materials from Warren's two early horizons and to serve as a stratigraphic check.

A single test pit, two meters by two meters, was placed midway between the area of Warren's excavations and the mouth of Wenas Creek (see Figure 3). This was an area designated by Warren (1959) as the main part of the site, a conclusion presumably based upon surface indicators. The test excavation sectioned through the northeast quarter of a housepit, revealing a number of occupational floors (see Figure 4). Excavations continued below the housepit well into sterile gravels without the slightest evidence for earlier cultural components. It is likely that earlier levels, if they existed, were washed away by seasonal flooding of both Wenas Creek and the Yakima River. Evidently where Warren (1959) worked, which was at the terminus of the Wenas floodplain with a bedrock escarpment, flooding was less severe and earlier materials preserved.

The stratigraphic units identified by number in Figure 4 are described as follows. The terminology used here is derived from the Soil Survey Manual (USDA 1951), and soil colors refer to the Munsell color system.

| Unit 19 (0-39 cm.) | Plow zone; variable colored fine sand; massive; soft; very friable; non-sticky; non-plastic; fine roots |

4
Fig. 3  Site Plan View, 45YK51
abundant; krotovinas present; contains portions of Units 16-18; cultural material present; clear boundary to:

**Unit 18** (39-68 cm.)  
Light brown (D) medium fine sand; massive; soft; very friable; non-sticky; non-plastic; fine roots common; krotovinas present; cultural material present; abrupt smooth boundary to:

**Unit 17** (68-71 cm.)  
Grayish brown (D) very fine sand; single grained; loose; friable; non-sticky; non-plastic; fine roots common; krotovinas present; cultural material present; abrupt smooth boundary to:

**Unit 16** (71-83 cm.)  
Light yellowish brown (M) sand; massive; soft; friable; non-sticky; non-plastic; slightly porous; very weakly cemented; fine roots common; culturally sterile; abrupt smooth boundary to:

**Unit 15** (83-128 cm.)  
Light brown (M) very fine sand; massive; soft; friable; non-sticky; non-plastic; fine roots common; krotovinas present; cultural material present; abrupt smooth boundary to:

**Unit 14** (128-134 cm.)  
Grayish brown (M) very fine sand; single grained; soft; friable; non-sticky; non-plastic; very fine roots common; krotovinas present; cultural material present; abrupt smooth boundary to:

**Unit 13** (134-140 cm.)  
Yellowish brown (M) fine sand; single grained; soft; very friable; non-sticky; non-plastic; fine roots common; krotovinas from above; cultural material present; abrupt smooth boundary to:

**Unit 12** (140-144 cm.)  
Dark grayish brown (M) very fine to silty sand; massive; soft; friable weak crumb structure; very slightly sticky; very slightly plastic; krotovinas from above; cultural material present; abrupt smooth boundary to:

**Unit 11** (144-148 cm.)  
Grayish brown (M) very fine sand; massive; soft; very friable; non-sticky; non-plastic; fine roots common; krotovinas from above; cultural material present; abrupt smooth boundary to:

**Unit 10** (148-152 cm.)  
Very dark gray (M) very fine sand; massive; soft; friable; very slightly sticky; very slightly plastic; dark color due to finely separated charcoal and organic colloids; fine roots common; cultural material present; abrupt smooth boundary to:

**Unit 9** (152-158 cm.)  
Grayish brown (M) fine sand; massive; soft; very friable; fine roots rare; krotovinas from above; cultural material present; this unit defines the bottom of the housepit; very clear boundary to:

**Unit 8** (64-74 cm.; measured from the eastern margin of the housepit in the south wall)  
Light brown (M) medium fine sand; massive; very weakly cemented; non-sticky; non-plastic; fine
Figure 4

Plan of Depression Area

Datum

South Face

West Face

cm
roots common; krotovinas from above; charcoal and cultural material are absent; very abrupt smooth boundary to:

**Unit 7 (74-97 cm.)**  Brown (M) very fine sand; massive; weakly cemented; non-sticky; non-plastic; fine roots common; finely disseminated charcoal common; cultural material present; clear smooth boundary to:

**Unit 6 (97-105 cm.)**  Yellowish brown (M) medium fine sand; massive; soft; very friable; non-sticky; non-plastic; roots common; krotovinas from housepit; charcoal and cultural material are absent; abrupt smooth boundary to:

**Unit 5 (105-129 cm.)**  Light brown (M) fine sand; massive; soft: very friable; non-sticky; non-plastic; slightly finer and firmer in the top 10 cm.; fine roots common; krotovinas from housepit; charcoal and cultural material are absent; abrupt smooth boundary to:

**Unit 4 (129-156 cm.)**  Yellowish brown (M) very fine sand; massive; very slightly cemented; non-sticky; non-plastic; roots rare; krotovinas from housepit; charcoal and cultural material are absent; gradual smooth boundary to:

**Unit 3 (156-188 cm.)**  Yellowish brown (M) very fine sand; massive; soft; very friable; non-sticky; non-plastic; roots rare; krotovinas rare; charcoal and cultural material are absent; clear smooth boundary to:

**Unit 2 (188-209 cm.)**  Grayish brown (M) very fine sand; massive; soft; slightly sticky; slightly plastic; roots absent; krotovinas absent; charcoal and cultural material are absent; abrupt smooth boundary to:

**Unit 1 (209-?? cm.)**  Rounded to well-rounded river gravel; small pebble to small cobble; lithology basalt.

Two hundred seven artifacts were recovered from the test excavations, including cores, flake scrapers, end scrapers, gravers, knives, projectile points, a notched pebble sinker, a cut bone, and an antler wedge fragment. These artifacts are typical of the Cayuse phase (after Swanson 1962) which spans the entire Columbia Plateau and has a time depth of approximately two millenia (Nelson m.s.). These particular artifacts are akin to the Cayuse II subphase as defined by Swanson (1962:48) which ranges in time between A.D. 1000 and A.D. 1650 (Nelson m.s.). The distribution of the projectile points according to level can be seen in Plates 5 & 6. Their essential homogeneity suggests that they were deposited within a relatively short period of time, and possibly by the same group of people.

**Excavations at Wahtum Creek (45YK28)**

The Wahtum Creek site is located a short ways west of White Swan in the eastern foothills of the Cascades (see Figure 1). The site was recorded and tested by Weeks (1962) and is described as a temporary campsite used for hunting or other economic pursuits (Weeks 1962:41). A small test excavation
was made here in 1966 in order to obtain additional artifacts before the site was completely destroyed by relic collectors, and also to obtain a more precise stratigraphic description.

One test pit, 1.0 by 1.5 meters, was placed at the western end of the site in the approximate location of Weeks' square ON15W (Weeks 1962:21). The excavation revealed five stratigraphic units described as follows:

**Unit 5 (0-13 cm.)**
Dark brown (M) very fine sand; massive; soft; very friable; non-sticky; non-plastic; roots common; krotovinas present; cultural material present; clear smooth boundary to:

**Unit 4 (13-30 cm.)**
Dark grayish brown (M) very fine sand; massive; soft; very friable; non-sticky; non-plastic; contains a thin layer of small pebbles with a maximum diameter of 3.5 cm. at the top of the unit; roots common; krotovinas present; cultural material present; clear smooth boundary to:

**Unit 3 (30-44 cm.)**
Dark brown (M) very fine sand; massive; soft; friable; non-sticky; non-plastic; contains subrounded pebble gravel with a maximum diameter of 6 cm. throughout; some gravel contains carbonate coatings; roots present; krotovinas rare; cultural material present; clear smooth boundary to:

**Unit 2 (44-57 cm.)**
Dark grayish brown (M) fine sand; massive; soft; friable; non-sticky; non-plastic; contains few stones; numerous particles of charcoal are present; roots present; cultural material present; very clear smooth boundary to:

**Unit 1 (57-?? cm.)**
Well rounded to subrounded pebble to large cobble gravel; some gravel contains carbonate coatings; dark yellowish brown (M) silt to fine sand is intermixed; massive; soft; slightly sticky; slightly plastic; the top of this unit marks the base of the cultural deposits.

One hundred eighteen artifacts were recovered from the site. These artifacts fall into the same categories as those obtained from Wenam Creek, and likewise represent the Cayuse II subphase. Plate 7 shows the distribution of projectile points according to level. As in the case with Wenam Creek, the points show no great internal diversity and indicate rapid accumulation of the cultural materials, probably by the same social grouping.

**Excavations at Umtanum Creek (45KT101)**

The Umtanum Creek site is located south of Ellensburg in a tributary valley of the Ellenburg Canyon (see Figure 1) and was recorded and tested by the writer in 1966. The site is contained in the remnant of an old floodplain deposit of Umtanum Creek and has been partially disturbed by construction of a water control dam and the foundation of an old cabin. Rock collectors have also disturbed much of the surface area of the site.

Five test pits were excavated at 45KT101 (see Figure 5). All but test pit 2 were partially churned in the upper levels by the disturbances mentioned
above. Test pit 2, a 1.5 by 2 meter excavation, revealed additional cultural material beneath a thick layer of gravel (Figure 6, layer number 8). Since test pits 1, 3, 4, and 5 all represented the upper deposits, efforts were concentrated in test pit 2 so as to obtain some sampling of diagnostic artifacts from the lower levels of the site. Test pit 4 was placed close to the cabin foundation and was found to be completely disturbed; it yielded no artifacts.

The layers numbered in Figure 6 correspond to nine stratigraphic units from test pit 2 and are described as follows:

**Unit 9**
Grayish brown (D) medium fine silt; massive; firm; slightly sticky; slightly plastic; roots abundant; contains no gravel; has vertical cracks running parallel to the slope of the bank; cultural material present; abrupt smooth boundary to:

**Unit 8**
Rounded to subrounded gravel in a massive and very friable light brownish gray (D) silt matrix; gravel size ranges from 5 mm. to 90 cm. maximum diameter; small cobbles predominate; poorly sorted or unsorted; approximately 95% of gravel has carbonate coatings; no freeze-thaw features present; some roots present; some possible reworked volcanic ash lies at the base of the unit; cultural material absent; abrupt smooth boundary to:

**Unit 7**
Grayish brown (D) medium fine silt; massive; very firm; slightly sticky; non-plastic; slightly cemented; fine roots present; cultural material present; clear boundary to:

**Unit 6**
Dark gray (D) silt; firm; porous; breaks out in large aggregates (10 cm.) that in turn break down into medium crumb structure; crumb surfaces are coated with dark gray colloids; aggregate and crumbs are slightly cemented; larger rock is rare; scattered small pebbles are common and have no carbonate coatings except where there are adjacent rootlet channels; rootlets present; cultural material present; gradual smooth boundary to:

**Unit 5**
As Unit 6 above except that pebbles and small cobbles increase in frequency; clear boundary to:

**Unit 4**
Rounded to subrounded gravel in a dark gray (D) matrix having a fine crumb structure; characteristics of crumb structure are as in Unit 6 above; gravel size ranges from pea gravel to boulders (maximum diameter of 1 meter); small to large cobbles predominate; some cobbles are fractured in situ, probably by freeze-thaw action; iron stains are on interstices of stones; no carbonates except as rootlet channels are adjacent; rootlets present; cultural material present; gradual boundary to:

**Unit 3**
As Unit 4 above except that crumb structure becomes progressively weaker; soil becomes lighter to grayish brown (D); there are fewer carbonates and rootlet channels; cultural material present; gradual boundary to:

**Unit 2**
Yellowish brown (M) very fine silt; firm; slightly sticky; slightly plastic; medium to fine blocky structure breaking down to fine crumb structure; light colloid stains present on ped.
Figure 6

Stratigraphy Test Pit 2, 45KT101
surfaces; pea gravel to very small cobbles; carbonates absent; rootlets absent; cultural material present (?).

Unit 1
Grayish brown (M) silty clay; very sticky; very plastic; pea gravel to very large cobbles; small cobbles predominate; rootlets rare; cultural material present (?).

Two hundred seventy-six artifacts were obtained from 45KT101. In general these include the same categories of artifacts as were found at Wenas Creek, with the exception that gravers, notched pebble sinkers, and antler wedges were not present. Artifacts notably present at Umtanum Creek but absent at Wenas Creek include a stone pallet and grinder stained with green mineral matter, numerous cobble choppers and cobble flake scrapers, cobble hammerstones, a microblade and blade-like flakes, and a concretion incised and shaped into the form of a fish head. The smaller artifacts are photographed by level in Plates 9-12. The projectile points encountered at Umtanum Creek are of a conspicuously different character than those from either Wahtum Creek or Wenas Creek. Fourteen points are stemmed and shouldered. Other point forms found include four corner notched points, a triangular point, and a small side notched point. Stemmed and shouldered points are a diagnostic feature of the Frenchman Springs phase at Vantage (Swanson 1962: 39), ranging from about 1500 B.C. to 800 B.C. (these dates are my estimation). The projectile points that are basically small and triangular in form, and which have side and corner notches, are hallmarks of the Cayuse phase at Vantage (Swanson 1958), which ranges from about 200 B.C. to historic times (these dates are my estimation). Therefore, components belonging to at least two cultural phases are represented at the site.

One corner notched point from test pit 2, 190-205 cm. (see Plate 10: d), found in association with points with contracting stems suggests that corner notched points may be older in the foothills than in the river basins, or that the contracting stemmed point tradition persisted later in the foothills region. It is possible that both statements contain an element of truth, but that they vary locally in different parts of the Plateau. The latter proposition, however, seems less likely in view of the evidence provided by close geographic proximity of the Wenas Creek and Umtanum Creek sites. Their distinctly different artifact assemblages suggest that corner notched points may indeed be older in the foothills region than in the river basins. Since the corner notched point relates to the Cayuse phase, this evidence also supports the theses of Swanson (1962) and Nelson (m.s.) that the emergence of the ethnographic pattern on the Plateau took place in the Cascade foothills.

The occurrence of a microblade and four blade-like flakes at the Umtanum Creek Site documents still another point in eastern Washington where microtools of this sort have been found. Their first reported occurrence was by Osborne (1967) in the Sun Lakes area. Recent work in the Wells Reservoir area by the University of Washington has produced a few similar finds. (David Wyatt and G. F. Grabert, UW-1966, personal communication). The most productive microblade-producing site so far discovered in eastern Washington, however, is at Ryegrass Coulee near Vantage, where about 230 classic microblades have been recovered in a geological context dated by radiocarbon at 6400 B.P. (David Munsell, UW-1967, personal communication). The example from Umtanum Creek is interchangeable with specimens from Ryegrass Coulee and measures 2.2 cm. long, 0.45 cm. wide, and 0.15 cm. thick (see Plate 9: e). Although a sample size consisting of one microblade and four blade-like flakes is an insufficient base upon which to draw conclusions, the presence of this highly distinctive technological attribute is not likely to be accidental and further work should be carried out at the site so that more specimens can be obtained.
Another interesting find at the Umtanum Creek Site is the fragment of a saltwater clam shell excavated from test pit 3 at a level between 65-80 cm. below the surface (see Plate 11: i). The shell has been identified as a littleneck clam, Protothaca staminea Conrad, which is commonly found in Puget Sound (James J. Landye, WSU-1967, personal communication). In the geographic provenience of Umtanum Creek the only likely source for the clam shell is from Puget Sound via the Cascade mountain passes. If this is the case, then it might be argued that trade with the seacoast over the Cascade passes has been in effect for at least 3000-3500 years, or since the beginning of the Frenchman Springs phase.

MAPS OF HOUSEPIT SETTLEMENTS

Although housepits are the hallmark of the winter village pattern on the Plateau, there are very few maps which properly illustrate their spatial arrangement. In the past, vast numbers of housepits have been lost by cultivation. Now, most of the more extensive pit house village sites have been inundated by reservoirs of the Columbia Basin Project, and highway construction threatens a number of remaining sites on tributary streams of the Columbia. Soon it will be next to impossible to precisely document their arrangement. Some like Anastasio (1955: 98, Figure 2) and Warren (1960) have generally described the linear arrangements of housepits along the banks of the major rivers of the Columbia Plateau. The detailed plan maps that do exist have been described by Osborne (1957: Map 2), Nelson (1960: 6, Plate 2), Osborne and Crabtree (1961: 29, Figure 1), and a few others. In order to expand upon this limited body of detailed information Figures 2A and 2B were prepared.

Figures 2A and 2B illustrate the typical pattern of housepit settlements along the Yakima River. Their linear arrangement along the river bank is essentially the same as that described above in the Columbia River basin. Plate 8 shows one kind of lodge that housepits are associated with in this part of the Plateau.

PRIVATE COLLECTIONS

Private collections were studied during the evenings at the time of the survey and usually belonged to individuals contacted during the day. These collections were invaluable for familiarizing the writer with local artifact styles, as well as for closing gaps in the distribution of known styles of artifacts. The following paragraphs describe and discuss selected artifacts from some of the private collections examined.

The Klasse Collection (Packwood)

Materials from this collection were obtained primarily from the Packwood Mill site (see Figure 1) on Hall Creek, a tributary of the upper Cowlitz River in western Washington. The site was a small single component site containing abundant evidence for a hunting-fishing economy and is now totally destroyed. Approximately 300 projectile points were found. A small number of these are corner notched points which are very similar to specimens from
Wenas Creek. In addition, there are a few small triangular and leaf-shaped points. A majority of points, however, are lozenge-shaped, having straight-sided tapering stems (see Plate 16), and are here referred to as "Packwood tapered stemmed points." Measurements on 46 complete points of this variety are as follows:

Mean length: 2.0 cm.  Range: 2.8 to 1.5 cm.
Mean width: 1.4 cm.  Range: 2.0 to 0.9 cm.
Mean thickness: 0.3 cm.  Range: 0.2 to 0.5 cm.

Forty-three of the forty-six points are made of a local red jasper. The remaining three specimens are of opaque obsidian, possibly derived from the local source of Old Snowy Mountain in the Goat Rocks. Other artifacts from the Packwood Hill site include several calcined bone fishing barbs, some end scrapers, and pieces of ground realgar. Associated materials include a number of calcined fish vertebrae and a large quantity of split calcined mammal bone.

The W. E. Newland Collection (Yakima)

The Newland collection is composed entirely of artifacts from the Rimrock area (see Figure 1) on the upper Tieton River in eastern Washington. All specimens were recovered from the surface in such settings as Plate 3. Small triangular, corner and side notched points characterize the collection. Large stemmed and shouldered points are present, however, as well as a large number of flake scraping implements, end scrapers, and uniface cobble choppers. Most of the artifacts are made from materials locally available such as jasper and low quality agate.

The Robbins Collection (Fort Simcoe)

Most artifacts from the Robbins collection are surface finds from the vicinity of Fort Simcoe and from the headwaters of Dry and Loggy Creeks on the Yakima Indian Reservation. The point styles represented include corner notched and small side notched.

The Siler Collection (Randle)

The Siler collection was obtained from a small single component site located close to the mouth of the Cispus River (see Figure 1) in western Washington. The site has been destroyed by construction of a farm road. About thirty projectile points were recovered from the site, including small triangular, corner notched forms (Plate 13: h-n), corner notched/corner removed forms (Plate 14: h-n), stemmed forms with barbed shoulders (Plate 14: a-g), leaf-shaped forms (Plate 13: a-e), and triangular forms (Plate 13: f, g). A knife and three scrapers from the site are illustrated in Plate: a-d. One of these scrapers is based on a large blade (Plate 15: c) and is reminiscent of similar side scrapers based on blades that have been found at 45SN100 (Nelson 1962).

General Observations Concerning Materials from Collections

The collections described above all come from restricted localities in the south-central Cascades. Yet, all of these areas are related by one
common element: corner notched projectile points. As emphasized before, corner notched points are a diagnostic feature of the Cayuse phase on the Plateau. The proportion of corner notched points to other forms of points is greater on the east side of the Cascade divide than the west side and reaches a peak frequency in sites from the river basins of the lower Yakima, the Columbia, and the Snake, suggesting the westward diffusion of cultural elements of the Cayuse phase in this part of the Plateau during the last 2000 years. In behavioral terms, this diffusion appears to be linked to the developing economic pattern of the ethnographic peoples of the Plateau and reflects increasing and more intensive use of mountain prairies as sources for root food products, of mountain streams as a source for fish, and the area in general as a source for game. Trade and intermarriage with coastal peoples are another aspect of this westward diffusion of Cayuse phase elements -- an aspect supported by linguistic studies of the western spread of Sahaptin speakers into the western valleys of the Cascades (Jacobs 1931: 95-96; Jacobs 1937:72). Historically, the valleys of the Cowlitz and the Tieton were connected by the Yakima Trail and a network of other trails in the south-central Cascades which became entrenched by more frequent travel across the Cascades after the arrival of the horse in the Northwest (see Rice 1964a).

Another observation is that Cayuse phase elements appear to have been superimposed on local elements based on an older tradition of stemmed/shoul ered points. Sequences established in the river basins, such as Swan son (1962) and Nelson (m.s.), show that stemmed/shouldered points precede corner notched points and are a diagnostic feature of the Frenchman Springs phase in the Vantage region. In western Washington there are no established sequences of point forms. The fact that stemmed/shouldered and leaf-shaped point forms predominate in the assemblages on the Cowlitz, however, suggests that they belong to older and different traditions, and that elements of the Cayuse phase on the Plateau, such as corner notched points, are a recent vernier in the culture history of this part of the Northwest Coast culture province.

A BEHAVIORAL FRAMEWORK

In order to place the finds reported in this study into perspective, some conceptual framework linked to human behavior was sought. In order to crystallize upon a satisfactory model ethnographic inquiries were made among native informants on the Yakima Indian Reservation regarding settlement patterns, types of house construction, and aspects of the food quest. Out of these contacts emerged a conceptual framework integrated by a seasonal pattern of behavior not unlike that discussed by Ray (1932), Spier (1938), Bishoff (1949), Swanson (1962), and Nelson (m.s.), and known as the "ethnographic pattern" of the Plateau.

The Ethnographic Pattern

The ethnographic pattern as a term used here refers to a structure of exploitative economic patterns, a network of established social relationships, a common system of values and beliefs, and an essentially common material culture which characterizes all Plateau cultural assemblages over approximately
the last 2000 years. This kind of model interrelates sites having similar artifact content and association by functionally connecting them to the sum of socio-economic activities required by ethnographic peoples in order to subsist and maintain themselves. Archaeologically, the elements which comprise this structure are known as the Cayuse phase in the Plateau.

A View Through Time

Culture change in the Plateau generally has been characterized as gradual and continuous over the last 12,000 years, i.e. Daugherty (1962). Change certainly has been continuous, but also has not been at an even rate. For instance, change has occurred in the elements of the ethnographic pattern over the last 2000 years. The basic structure of this pattern, however, has remained unchanged in that time span and includes in rough form pit house winter villages, vorner notched projectile points and their associations in the archaeological record. This is to say that Plateau culture has undergone a number of basic changes in structure in the course of its 12,000 year history and that the last one took place shortly before 2000 years ago and equates with the social-cultural structure encountered at the time of Euro-American contact. Site location patterns and cultural contents of sites which do not fit the ethnographic pattern are supposed to be derived either from a different culture area, i.e. Northwest Coast or Great Basin, or, more likely, from some cultural phase antecedent to the ethnographic pattern.

CONCLUDING STATEMENT

Archaeological reconnaissance in the south-central Cascades has revealed a number of sites worthy of further investigation; it has contributed to the stratified inventory of artifacts from the area; it has provided maps of housepit settlements; it has documented private collections from the area; and it has provided a framework which links all of these finds together in terms of the social and economic lives of the people who aboriginally occupied the area. More importantly, however, this study has focused on a number of problems suitable for future research which take advantage of the potential which the south-central Cascades region holds for archaeological research.
ERRATA

(Omitted from Bibliography)

Daugherty, Richard D.


Daugherty, Richard D. and Others

REFERENCES CITED

Anastasio, Angelo  
1955  Intergroup Relations in the Southern Plateau.  
Ph.D. dissertation, University of Chicago, Chicago.

Bischoff, William N.  
1949  The Yakima Campaign of 1856.  
Mid-America, Vol. 31; New Series, Vol. 20, No. 3,  
pp. 163-208. Chicago.

Cressman, Luther S. and Others  
1960  Cultural Sequence at The Dalles, Oregon:  
A Contribution to Pacific Northwest Prehistory.  
Transactions of the American Philosophical Society,  

Daugherty, Richard D.  
1962  The Intermontane Western Tradition.  
Salt Lake City.

Greengo, Robert E.  
1966  Archaeological Excavations at the Marymoor Site, (45KI9).  

Jacobs, Melville  
1931  A Sketch of Northern Sahaptin Grammar. University of  
Washington Publications in Anthropology, Vol. 4, No. 2,  

1934  Northwest Sahaptin Texts. Columbia University Contributions  

1937  Historic perspectives in Indian Languages of Oregon and  
Washington. Pacific Northwest Quarterly, Vol. 28, No. 1,  
pp. 55-74. Seattle.

Nelson, Charles M.  

1962  Stone Artifacts from SN100. Washington Archaeologist, Vol. 6,  
No. 4, pp. 2-41. Seattle.

1966  A Preliminary Report on 45C01 a Stratified Open Site in the  
Southern Columbia Plateau. Washington State University,  
Pullman.
Nelson, Charles M.
  m.s. The Sunset Creek Site and Its Place in the Prehistory of the Columbia Plateau. Manuscript, Department of Anthropology, Washington State University, Pullman.

Osborne, Douglas

Osborne, Douglas and Robert Crabtree

Quaife, Milo Milton (Editor)

Ray, Verne F.

Rice, David G.

Rice, Harvey S.
Shiner, Joel L.  
1961 The McNary Reservoir: A Study in Plateau Archaeology.  
Bureau of American Ethnology, Bulletin 179, River Basin  
Surveys Paper No. 23, pp. 149-266. Washington.

Smith, Harlan I.  
1910 Archaeology of the Yakima Valley. American Museum of  
Natural History Anthropological Papers, Vol. 6, Part 1,  

Spier, Leslie (Editor)  
1938 The Sinkaietk or Southern Okanogan of Washington.  
General Series in Anthropology No. 6. George Banta  
Publishing Company, Menasha.

Swanson, Earl H., Jr.  
1958 The Schaake Village Site in Central Washington.  
Salt Lake City.

1962 The Emergence of Plateau Culture. Occasional Papers of  
the Idaho State University Museum No. 8. Pocatello.

U. S. Department of Agriculture, Soil Survey Staff  

Warren, Claude N.  
1959 Wenas Creek: A Stratified Site on the Yakima River,  
Its Significance for Plateau Chronology and Cultural  
Relationships. Master's thesis, University of Washington,  
Seattle.

1960 Housepits and Village Patterns in the Columbia Plateau and  
Southwestern Washington. Tebiwa, Vol. 3, No. 1 & 2,  

Washington Archaeological Society  
1958 Preliminary Report on Site 45-KT-6. Manuscript,  
Washington Archaeological Society, Seattle.

Weeks, Kent R.  
Season. Report submitted to Washington State Parks and  
Recreation Commission. Seattle.
Fig. 5  Site Plan View, 45KT101
Figure 2A. Housepit Settlement Plan, 45YK 106
Figure 2B. Housepit Settlement Plan, 45YK105
PLATE 1. Weathered contact zones between lava flows form natural shelters used by prehistoric peoples for storage and temporary camps.

PLATE 2. This view silhouettes the mouth of a small storage shelter high above the valley floor in the eastern foothills of the Cascades.
PLATE 3. A concentration of firecracked rock marks a small seasonal campsite (45YK100). Small groups of Indians would hunt and fish in the Cascades during the late summer and dry and smoke their catch in settings like this one.

PLATE 4. This view to the southeast from White Pass overlooks the headwaters of the Tieton River and the Tieton Reservoir in the distance. Early travelers on the Yakima Trail would follow the backbone of the ridge from which the photo was taken and then drop down to the old Russell Ranch in the Tieton Basin at Rimrock.
PLATE 5. Artifacts from Test Pit 1 at Wenas Creek (45YK51). The specimens are listed according to level in cm.

<table>
<thead>
<tr>
<th>Level</th>
<th>Item</th>
</tr>
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<tbody>
<tr>
<td>0-10</td>
<td>a &amp; b</td>
</tr>
<tr>
<td>10-25</td>
<td>c - g</td>
</tr>
<tr>
<td>25-40</td>
<td>h - k</td>
</tr>
<tr>
<td>40-55</td>
<td>l - o</td>
</tr>
<tr>
<td>55-70</td>
<td>p &amp; q</td>
</tr>
<tr>
<td>70-85</td>
<td>r - y</td>
</tr>
</tbody>
</table>

PLATE 6. Artifacts from Test Pit 1 at Wenas Creek (45YK51). The specimens are listed according to level in cm.

<table>
<thead>
<tr>
<th>Level</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-100</td>
<td>a - g</td>
</tr>
<tr>
<td>100-115</td>
<td>h - k</td>
</tr>
<tr>
<td>115-130</td>
<td>l - o</td>
</tr>
<tr>
<td>130-165</td>
<td>p &amp; q</td>
</tr>
</tbody>
</table>
PLATE 7. Artifacts from Test Pit 1 at Wahtum Creek (45YK28). The specimens are listed according to level in cm.

<table>
<thead>
<tr>
<th>Level</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>surface</td>
<td>a - e</td>
</tr>
<tr>
<td>30-45</td>
<td>f - k</td>
</tr>
<tr>
<td>45-60</td>
<td>l - n</td>
</tr>
</tbody>
</table>

PLATE 8. Wanapam mat lodge at Priest Rapids. Mat lodge dwellings were often used in old housepit depressions, suggesting the gradual replacement of the housepit by the mat lodge over the last 200-300 years.
PLATE 9. Artifacts from Test Pit 1 at Umtanum Creek (45KT101). The specimens are listed according to level in cm.

<table>
<thead>
<tr>
<th>Level</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>surface</td>
<td>l &amp; m</td>
</tr>
<tr>
<td>0-20</td>
<td>a</td>
</tr>
<tr>
<td>20-35</td>
<td>b - d</td>
</tr>
<tr>
<td>35-50</td>
<td>e - i</td>
</tr>
<tr>
<td>50-65</td>
<td>j &amp; k</td>
</tr>
</tbody>
</table>

PLATE 10. Artifacts from Test Pit 2 at Umtanum Creek (45KT101). The specimens are listed according to level in cm.

<table>
<thead>
<tr>
<th>Level</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-145</td>
<td>a &amp; b</td>
</tr>
<tr>
<td>145-160</td>
<td>c</td>
</tr>
<tr>
<td>190-205</td>
<td>d</td>
</tr>
<tr>
<td>205-220</td>
<td>e &amp; f</td>
</tr>
<tr>
<td>235-250</td>
<td>g</td>
</tr>
</tbody>
</table>
PLATE 11. Artifacts from Test Pit 3 at Umtanum Creek (45KT101). The specimens are listed according to level in cm.

<table>
<thead>
<tr>
<th>Level</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>a</td>
</tr>
<tr>
<td>20-35</td>
<td>b &amp; c</td>
</tr>
<tr>
<td>35-50</td>
<td>d - f</td>
</tr>
<tr>
<td>65-80</td>
<td>g - j</td>
</tr>
</tbody>
</table>

PLATE 12. Artifacts from Test Pit 5 at Umtanum Creek (45KT101). The specimens are listed according to level in cm.

<table>
<thead>
<tr>
<th>Level</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>surface</td>
<td>d &amp; g</td>
</tr>
<tr>
<td>0-20</td>
<td>a-c,f</td>
</tr>
<tr>
<td>20-35</td>
<td>e</td>
</tr>
</tbody>
</table>
PLATE 13. Artifacts from the Siler Site (45LE97).

PLATE 15. Artifacts from the Siler Site (45LE97).

PLATE 16. Tapered stemmed points from the Packwood Mill Site (45LE95), upper Cowlitz River.
PLATE 17. The Cowlitz fishing site of lekalwit at the confluence of the Clear Fork is still evidenced by an 18 foot fishing spear which was found resting against the more distant cedar tree. The cedar tree in the foreground has been partially stripped of its bark for use in making baskets. (See Rice 1964a.)