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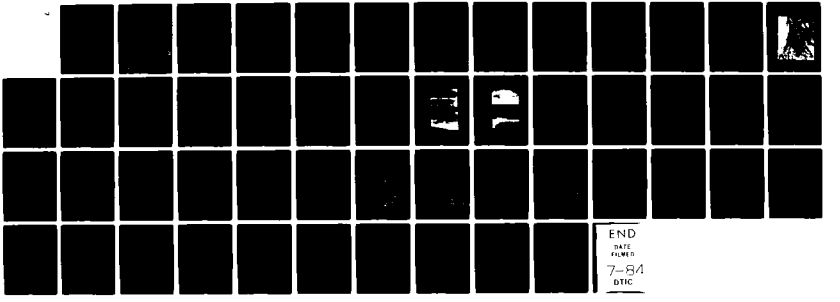

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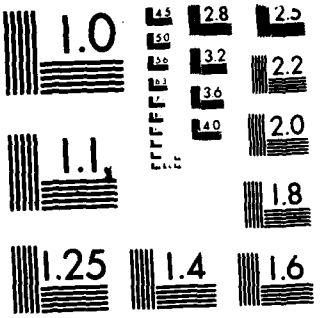

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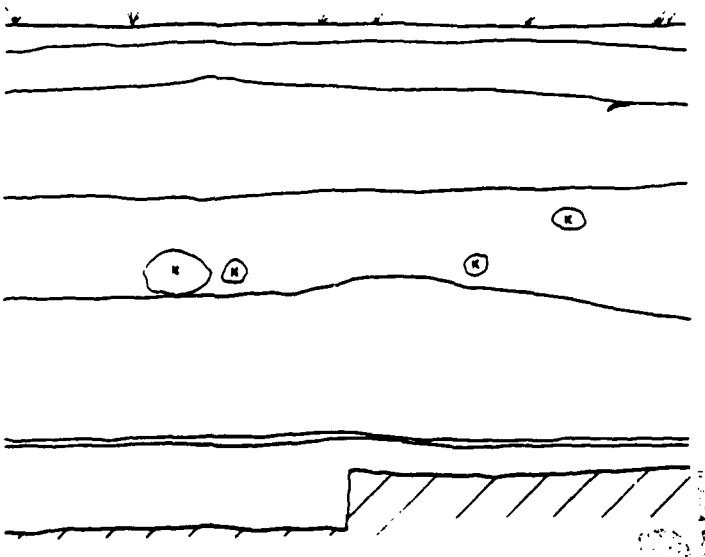

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Laboratory of Anthropology

University of Idaho

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An area adjacent to Sacajawea State Park on the mid-Columbia River near Pasco, Washington was examined to determine if cultural resources were present. Testing resulted in the recording of site 45-FR-317 with both prehistoric and historic cultural materials encountered. Diagnostic items indicate a very sporadic prehistoric occupation spanning a period of approximately 5000 years. Historic artifacts indicate another occupation by Euroamericans in the vicinity of 1900 - 1930.

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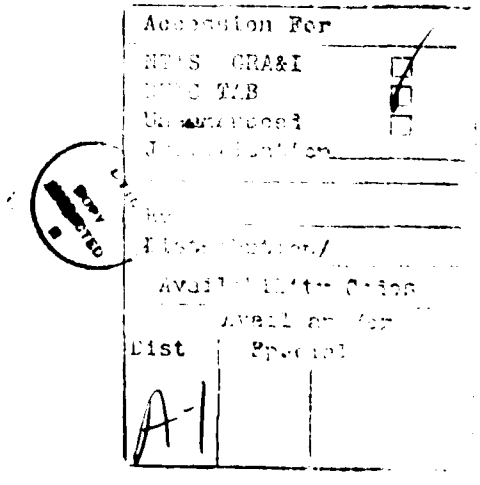
ABSTRACT

An area adjacent to Sacajawea State Park on the mid-Columbia River near Pasco, Washington was examined to determine whether cultural resources were present. The nature of the landform and its position adjacent to an important Lewis and Clark campsite suggested that such resources might be present although previous reconnaissance parties in the vicinity had not reported a site. A total of twelve 1 x 2 m test excavation units were situated to cover as much of the area as possible and 121 10 cm levels were removed and screened through 3 mm mesh wire. In addition, intensive collections were made along 200 m of the beach adjacent to the project area.

This project resulted in the discovery and recording of a prehistoric site, 45-FR-317. Cultural materials were extremely sparse, with only 20 items recovered from the test excavation. An additional 201 prehistoric lithic items were recovered from the beach. Historic items were also recovered both from the test excavations and from the beach. Temporal indicators suggest a very sporadic prehistoric occupation spanning the period from some 500 BP to the onset of the historic period; historic artifacts indicate another occupation by Euroamericans in the vicinity dating 1900-1930.



MANAGEMENT SUMMARY

Test excavation and surface collection along the beach at 45-FR-317 indicate that a prehistoric site was situated at this locus for some 5000 years. Occupation of this site was extremely sporadic, with temporal considerations based on three projectile points, only one of which was recovered by test excavation. No features were encountered. Historic materials from test excavation and beach collection units date 1900-1930. Although the lag concentrate deposits indicate that a considerable portion of 45-FR-317 has been eroded since the impoundment of the McNary Reservoir, it does not appear that what remains of this site is significant and does not require preservation or mitigation according to the requirements of 36-CFR-800. No further archaeological work is recommended.

ACKNOWLEDGEMENTS

As always, the field work and report preparation involved the efforts of a number of people. The authors directed the project and Roderick Sprague served as principal investigator. The field crew included Mark Arnold, Mary Condon, Karl Gurcke, Jon Horn, Robbin Johnston, J. P. Martin, and Stan McDonald. Initial laboratory work was undertaken by Patty Porterfield. The historic ceramics were identified by Priscilla Wegars. Jennifer Chance illustrated the artifacts while Cindy Lou McDonald drafted the maps. The report was typed by Deb Dudley and Penny Jorgensen.

Leroy Allen and John Leier coordinated everything with the Corps of Engineers and supplied the maps and aerial photographs. The *Tri-Cities Herald* wrote a brief article concerning our project. During field work the project was visited by Ruth Kirk, who later provided several photographs, and by Barbara Kubic and Nick Pagliari who shared their knowledge of the local area. Special thanks go to the anonymous painters from Montana who provided the much appreciated refreshments.

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1. INTRODUCTION AND BACKGROUND

Project Objectives

The objectives of the project were clearly stated in the Corps' "Scope of Work to determine the eligibility of the site to the National Register as required under Executive Order 11-593." A minimum of six 1 x 2 m test pits were to be excavated to a depth below cultural material; recovered artifacts were to be processed along with all relevant data; analysis should place such data into the regional prehistory and history; this should involve functional, technological, and stylistic analyses including determination of temporal indicators. It was not known whether or not a site existed at this locus, but if one was encountered, the contractors would be responsible for all documentation necessary for determination of eligibility to the National Register. Our proposal was designed to segue with all the services and requirements of the "Scope of Work" including recommendations for future management of the archaeological site if one was encountered.

Previous Archaeological Work

Archaeological investigations in the McNary Reservoir area began with a survey by Clarence Smith and Franklin Fanenga of the Smithsonian's River Basin Survey program in which 120 sites were reported in the proposed pool area; 22 were recommended for testing (Drucker 1948; Shiner 1961:169). Test excavations were conducted from 1948 through 1952 to salvage cultural material prior to the rise of the reservoir pool in 1953. Reports concerning many of these sites appeared some years later (Osborne 1957; Osborne and Crabtree 1961; Osborne, Bryan, and Crabtree 1961; Shiner 1961). More recently, excavation has been conducted on Strawberry Island (Cleveland, Flenniken, Huelsbeck, Mierendorf, Samuels, and Hassan 1976) while a survey recorded additional sites and inventoried and evaluated the condition of all sites within the reservoir as of 1975 (Cleveland, Cochran, Giniger, and Hammett 1976). Most recently, a post reservoir reconnaissance was conducted in upper McNary Reservoir in 1981-1982 (Thoms 1983).

Despite the degree of previous archaeological research in the vicinity of McNary Reservoir, no site had been reported adjacent to Sacajawea State Park at River Mile 325.5. This report represents investigations at this location which included the recording and designation of 45-FR-317 (Figs. 1 and 2).

Regional Prehistory

A number of archaeologists have attempted to devise a regional chronology for the Columbia Plateau, beginning with Joel Shiner (1961) who conducted an overview of sites in McNary Reservoir as his doctoral dissertation at the University of Arizona. Earl H. Swanson, Jr. attempted a

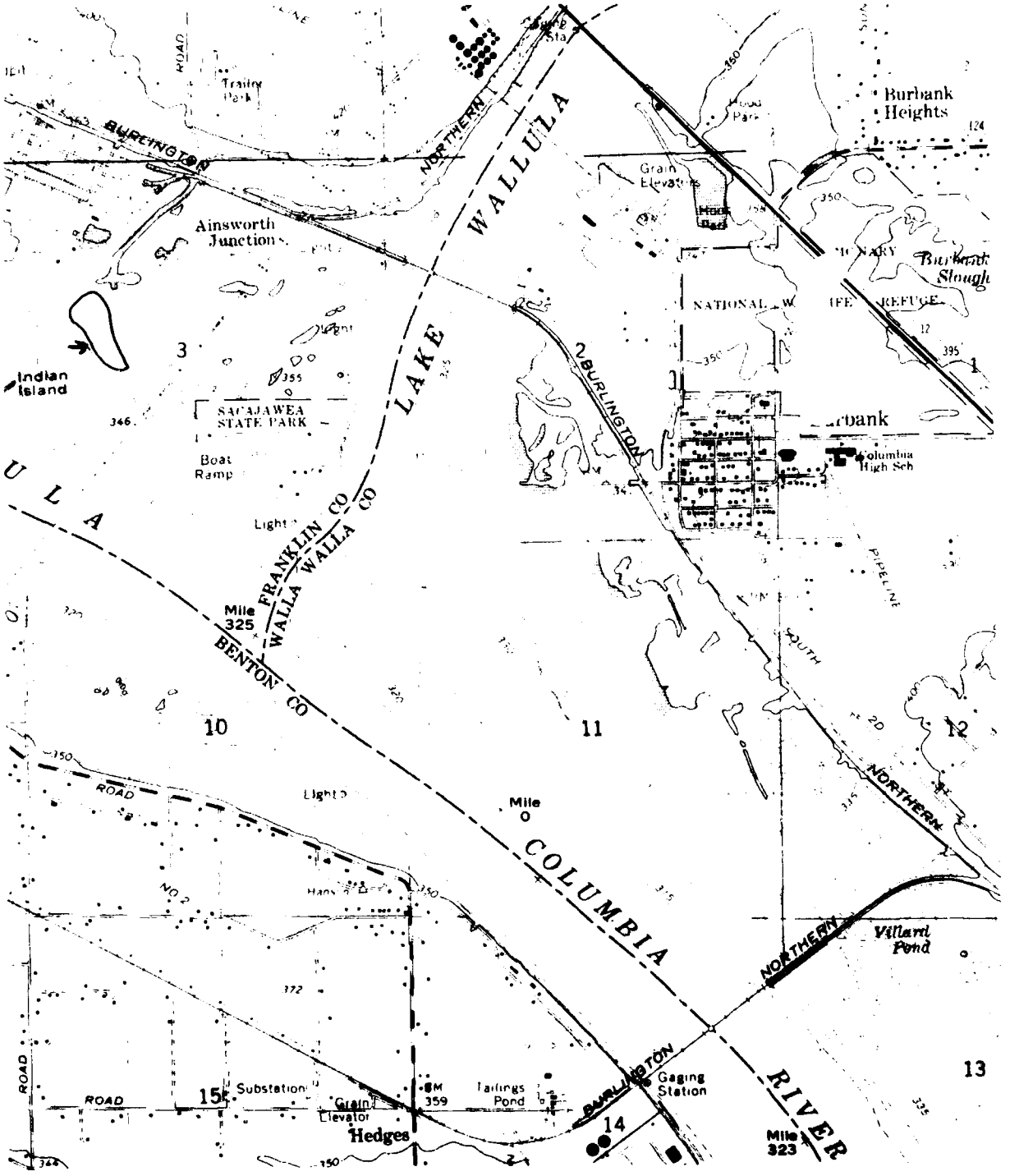

Fig. 1. Location map of project area with 45-FR-317 outlined and indicated by arrow.

Fig. 2. Aerial photograph of 45-FR-317. Site area is outlined.

broader view centered on the Vantage area and his sequence (1962) is the basis for all subsequent work. Charles Nelson focused on the Sunset Creek site and modified Swanson's chronology (1969). Most recently, Jerry Galm and others (1981) have revised the previous studies incorporating new material from upland sites in the Mid-Columbia region. These studies have resulted in the definition of four phases which can be briefly summarized.

The Windust phase, dating 11,000-8000 BP, is the beginning of the chronological sequence for the Columbia Plateau. This occupation of the region followed a semi-nomadic lifestyle and procured resources from a variety of environments, basing their subsistence strategy on hunting large mammals supplemented by small game, fish, and fresh water mussels. Lithic technology was highly developed and focused on chert; projectile point styles have relatively short blades, shoulders of varying prominence, straight or contracting stems, and straight or slightly concave bases. Other tools include relatively crude large lanceolate, or oval, knives and end scrapers; utilized flakes; and a variety of cobble tools (Leonhardy and Rice 1970, 1980; Rice 1972; Galm and others 1981:90-91).

The Cascade and Vantage phases, dating 8000-4500 BP, include two subphases with the later subphase characterized by large side notched projectile points and increased numbers of grinding and pounding implements. While subsistence was still based on hunting of mammals, emphasis on fish and fresh water mussels increased. Settlement was more specifically centered along the major rivers with upland sites used temporarily. Most significantly, house pit village sites began to appear at Alpowa and Hatwai. A shift in lithic material preference occurred with a greater emphasis on fine grained basalt, with the presence of lithic technology specifically oriented towards basalt. Cobble tools became more numerous and varied as well (Leonhardy and Rice 1970, Bense 1972; Brauner 1976; Ames, Green, and Pfortner 1980, 1981; Galm and others 1981:92-94).

The Frenchman Springs phase, dated 4500-2500 BP, is associated with a significant change in settlement pattern and artifacts. Subsistence was more generalized with emphasis shifting away from riparian resources towards more reliance on plant foods, although hunting mammals continued in importance. Diverse upland sites were more common, but occupation of riverine housepit sites continued. Preference for lithic materials shifted back to chert and technology became less sophisticated. Diversity and numbers of ground stone and cobble tools continued; pestles and hopper mortars appeared (Swanson 1962; Nelson 1969; Glam and others 1981:94-96).

The Cayuse and Harder phases dating 2500 BP to the historic period, contain the largest number of known archaeological sites. Each contains two subphases, with the later subphase characterized by an increased frequency of small projectile points and increased village site size. Subsistence is again centered on fishing and upland root procurement, with less emphasis on hunting. Technology is diverse with the typical projectile point styles being small corner notched and basal notched or expanding stem. Aboriginal material culture and lifeways were quickly altered by the introduction of trade goods and by direct contact with Euroamericans by the end of the eighteenth century (Nelson 1969; Leonhardy and Rice 1970, 1980; Galm and others 1981:97-99).

In summary, "the Pasco Basin was an area rich in cultural resources before impoundment of waters behind McNary Dam caused the inundation of many sites which ranged in age from circa 6,000 years B.C., and possibly earlier (Rice 1967), to historic times" (Cleveland 1976:3).

2. ENVIRONMENTAL BACKGROUND

Geology and Physiography

The study area is located in south central Washington, along the middle portion of the Columbia River in the approximate center of the Columbia Plateau (Fig. 1). Great successions of Yakima basalt flows poured out during the Miocene and buried all earlier deposits thousands of feet deep (Gilkerson 1958:1). At the cessation of the lava flows the area was a broad almost featureless plain which suffered major subsidence to produce the Pasco Basin into which all major drainages flow, especially the Columbia, Snake, and Yakima. Subsequent Pleistocene and recent eruptions have not greatly changed the landscape, but the Columbia and its tributaries, especially the Snake River have cut deep canyons into the basalt and created flat alluvial valleys (Shiner 1961:161). These rivers carry tremendous volumes of water through a great semidesert area permitting a greater diversity of life than would be normally possible. The Pasco Basin is especially notable for its lack of relief, low elevation, low precipitation, and long growing season (Thoms and others 1983:5).

Recent archaeological reconnaissance of a section of Upper McNary Reservoir resulted in the delineation of a series of landforms, two of which are present in the study area. The beach zone is "that portion of the shoreline regularly subjected to wave action...generally devoid of vegetation" where "sediments are very poorly sorted, ranging in size from sand to boulders (Thoms and others 1983:10).

Low flat refers to the zone between the beach and the higher zones. The low flat tends to slope gently toward the river; typically sediments are poorly sorted, ranging from sand to boulders. Areas composed entirely of pebble to boulder size sediments or sands are common. Vegetation ranges from sparse grasses and forbes [sic], to dense stands of willows, horsetail, cockle-burrs, and grasses (Thoms and others 1983:10).

These two zones correlate with the two portions of the study area where we conducted test excavations and controlled surface collections, as will be discussed below.

Climate

The climate for the six southeastern counties in Washington has been summarized elsewhere (Phillips 1970) so only a brief account is provided here. This study includes information on Franklin County, and more specifically, Pasco, as well. In general, summers are sunny, warm, and dry with a few hot days; winter has frequent changes due to the influences of Pacific storms moving eastward and Arctic air masses moving southward. Daily temperatures are more variable in summer ranging about 35°F while the winter range is about 15°F. Most precipitation occurs between October and

March; annual precipitation is less than 25 cm (10 in.) near the confluence of the Snake and Columbia rivers but increases to over 100 cm (40 in.) on the higher mountain slopes. The growing season is longest in the lower Yakima Valley at 165-180 days.

Flora

The Pasco Basin is within the *Artemisia tridentata-Agropyron spicatum* vegetation zone, the lowermost of nine zones in the steep vegetation region. A typical stand includes Sego lily (*Calochortus elegans*), bluebunch wheatgrass (*Agropyron spicatum*), Cusick bluegrass (*Poa cusickii*), Sandberg bluegrass (*Poa secunda*), big sagebrush (*Artemisia tridentata*), and everlasting (*Antennaria dimorpha*) (Daubenmire 1970:Fig. 3). Other species typical of the zone include needle and thread (*Stipa comata*), Thurber needlegrass (*S. thurberiana*), and squirreltail (*Sitanion hystrix*), while limited amounts of rabbitbrush (*Chrysothamnus viscidiflorus*), *Tetradymia canescens*, rabbitbrush (*Chrysothamnus nauseosus*), sagebrush (*Artemisia tripartita*), and hop sage (*Grayia spinosa*) may also occur (Daubenmire 1970:8-9). On-site vegetation is dominated by introduced weeds including Pacific meadow foxtail (*Alopecurus myosuroides*), cheatgrass (*Gromus tectorum*), Russian knapweed (*Centaurea repens*), perennial pepperweed (*Lepidium latifolium*), with native cottonwoods (*Salix* sp.) along the river bank.

Fauna

Native mammals in the region are diverse and include mule deer (*Odocoileus hemionus*), white tailed deer (*O. virginianus*), coyote (*Canis latrans*), badger (*Taxidea taxus*), black tailed jackrabbit (*Lepus californicus*), white tailed jackrabbit (*L. townsendii*), cottontail rabbit (*Sylvilagus nuttalli*), and pygmy rabbit (*S. idahoensis*) (Daubenmire 1970:11; Cleveland and others 1976:31). A much more complete list for the Columbia Basin has been composed elsewhere (Cleveland 1976:Table 5). In addition to the above species, several have been recovered at the nearby Miller site including antelope (*Antilocapra americana*) and mountain sheep (*Ovis canadensis*) (Cleveland and others 1976:Table 5).

Six species of anadromous fish were also present in the area, the most important of which, for humans, were chinook salmon (*Oncorhynchus tshawtscha*), coho salmon (*O. kisutch*), and steelhead trout (*Salmo gairderi*); sockeye salmon (*O. nerka*), chum salmon (*O. keta*), and pink salmon (*O. gorbuscha*) were more limited and of lesser importance (Cleveland and others 1976:60). Salmonids, probably Chinook salmon or steelhead trout, and fresh water clams (either *Margaretifera falcata* or *Gonidea angulata*) have also been identified at the Miller site (Cleveland and others 1976:Table 5).

Historic Background

A recent overview has provided a very good summary of the history of the study area from the contact period through the establishment of the Hanford Atomic Reservation in 1943 (Thoms and others 1983:21-24) so another

one is not necessary here. More specific to the project area, however, is the historic town of Ainsworth (45-FR-2), located 0.8 km (0.5 mi.) up the Snake River from 45-FR-317. A brief history of Ainsworth was included in our proposal (Laboratory of Anthropology 1983), so that only a sketch is provided here. Ainsworth began as a Northern Pacific Railroad town in 1879 and reached its heyday in 1884; it was county seat of Franklin County until 1885 when the railroad station was closed; it had nearly disappeared by 1898 when the town plot was annulled. At its height, Ainsworth had a population of up to 1000 and had the reputation of being a "wide open" town with plenty of saloons, gambling, and other amusements, and not much law. Completion of the bridge over the Snake in 1884 carried the railroad workers farther down the line to other areas and Ainsworth rapidly faded in importance. More recently, the Port of Pasco has expanded in the area and stockyards were present on the 1948 planning map (MD-1-4-43). A water pipe was laid across 45-FR-317 to carry water to the stockyards, probably in the 1930s (Barbara Kubic 1983:personal communication).

Ethnographic Background

Although historic records of the aboriginal peoples of the Pasco Basin began with the westward bound Lewis and Clark expedition in October 1805, professional ethnographers did not begin documenting these people until the turn of the century, well after the establishment of the reservations. For the Plateau in general, early studies include the Interior Salish (Teit 1900), the Nez Perce (Spinden 1908), the Mid-Columbia Salish (Teit 1928), the Wishram (Spier and Sapir 1930), the Sanpoil and Nespelem (Ray 1932), and numerous others (Ray 1932, 1936, 1938, 1939, 1942).

Even a cursury examination of the various studies of native groups in the Pasco Basin reveals two observations: (1) there is no unanimity among ethnographers as to who occupied the vicinity of 45-FR-317, but (2) most agree that these parties were Sahaptin speakers.

The locality in question has been attributed to the Palus (Ray 1936:Fig. 1; 1939:Map 1), the Walula or Walla Walla (Anastasio 1975), the Yakima, Walula, and/or Umatilla (Ray 1936:144), and the Wanapam or Wanapum (Spier 1936:21). Fortunately, all these groups are Sahaptin speakers so there existed a general uniformity among the various parties, as first noted by Clark on 17 October 1805 in his excellent description of the local natives (Thwaites 1969 [3]:120-127). Clark ascended the Columbia for 10 mi. and noted village sites almost continually along the west bank, including the area of 45-FR-317 (Thwaites 1969 [3]:Map 31-2).

An excellent overview of the ethnography of Columbia Plateau groups and their relation to the archaeological record is available elsewhere (Nelson 1969:50-62).

Field Methods

Field work at 45-FR-317 was conducted by eight people for eight working days and field methods followed generally standardized procedures. First, the entire area, especially along the cut bank, was walked over by the crew

in order to locate potential features, surface artifacts, or other clues that would facilitate the location of our initial test excavation units. A base datum was located adjacent to a pipeline at the downstream end of the area and then a grid was established using transit, stadia rod, and 50 m tape. The base line was established to run grid north (35° west of north) across the approximate center of the potential site area and wooden stakes were set every 20 m. Perpendicular east-west lines were set up using several of the stakes as subdatums. All units were located relative to the base lines by triangulating a series of 20 m squares, within which various 1 x 2 m pits were established according to local vegetation, surface disturbance indications, and intuition (Figs. 3 and 4). The first units opened were nearest the river bank on the assumption that they would be most likely to yield data affecting the location of the remaining units (Fig. 5a). Eventually, test excavation units were established at fairly regular intervals so that as much of the site could be tested as possible within the temporal constraints.

All test excavation units were 1 x 2 m and oriented on a grid east-west axis in order to have comparable stratigraphic exposures to examine. Excavation was conducted in traditional 10 cm levels with control maintained by line levels and hand tapes relative to the surface at all four corners. All excavation was conducted using hand tools, especially square shovels, and a variety of trowels. All excavated material was screened through 3 mm (1/8 in.) shaker screens. Records for all units and levels were kept by the excavator and screener on a separate level report form describing cultural material, soil changes, rodent disturbance, and so forth. Possible features or artifacts were mapped in plan view when encountered. Artifacts were grouped by labelled bag within each level and segregated by unit. At the completion of each unit, the north wall was cleaned, and representative units were selected for measured drawing and photography. Not all walls were drawn due to time constraints and the virtual unanimity of all units as well as to the relative sterility of most units. It was deemed more important at this stage of examination of the site to excavate as many units as possible rather than concentrating on analysis of areas demonstrated to be devoid of cultural material and without evidence of human occupation. Stratigraphic descriptions were based on texture and color and all colors were taken from direct comparison with Munsell Color Charts.

Toward the end of the testing phase the water dropped from its normal high pool maximum of 340 ft. to 338 ft. From the complete absence of a beach, a great expanse some 50 m wide was exposed, permitting examination of the cut bank and the exposure of lag concentrate deposits. The grid was extended to the bank edge and the distance from the base line was recorded at 20 m intervals (Fig. 3). Given the nature of the deposits, it was considered that 20 m collection units were sufficiently discrete to provide indications of whether or not meaningful data could be obtained (Fig. 5*b*). Materials were collected along the beach up to 20 m from the bank; beyond that it became impossible to walk and collect items due to the water level. The beach collection phase of this project provided most (91%) of the cultural material as will be discussed below.

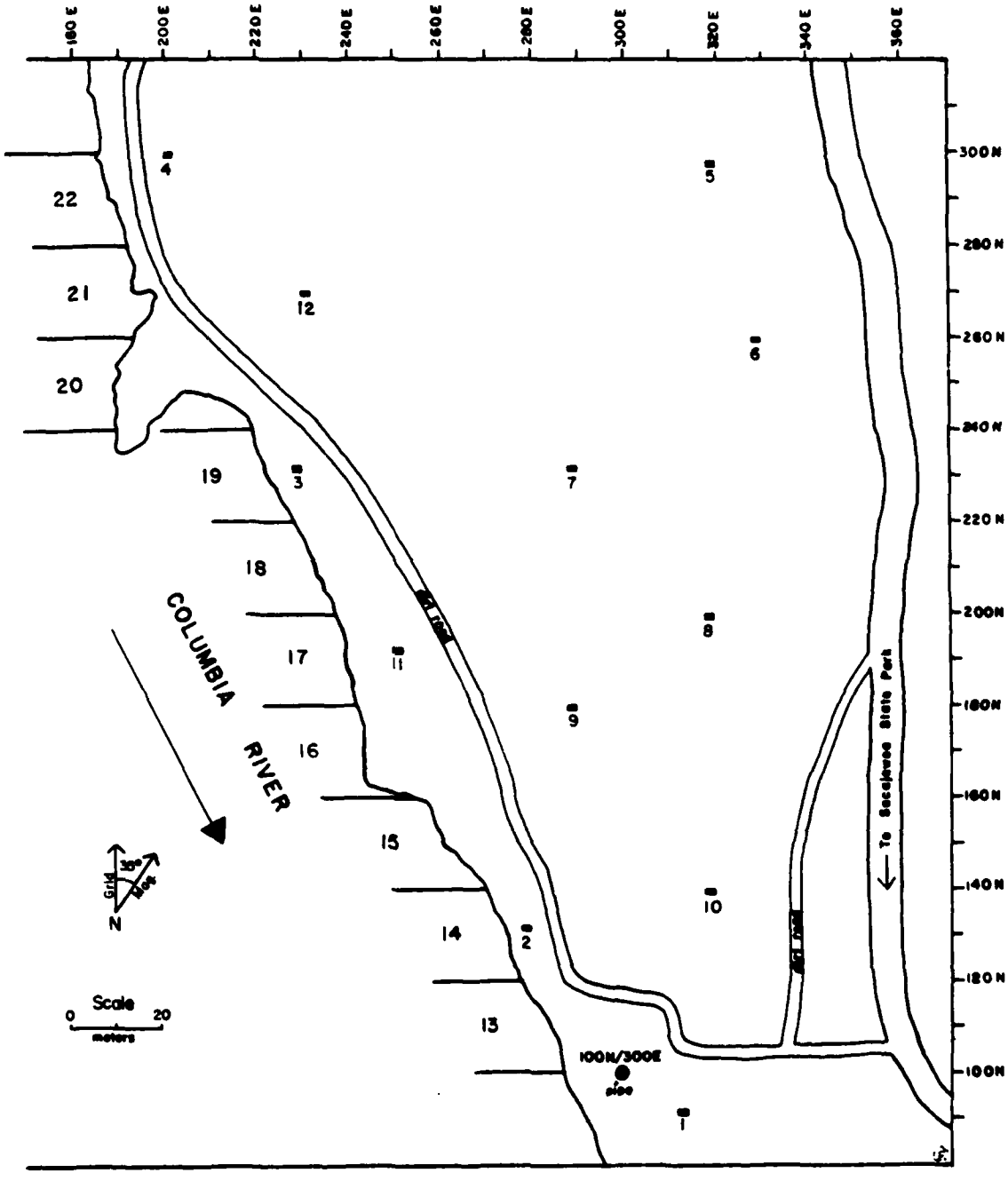

Fig. 3. Site map, 45-FR-317. Solid rectangles indicate test units (1-12); beach collection units (13-22) are located to the left.

a

b

Fig. 4. Overviews of 45-FR-317 site area; *a*, looking north across central portion of site; *b*, looking south with excavation of Unit 2 in progress and pipe datum at left center.

a

b

Fig. 5. Archaeological work in progress at 45-FR-317; *a*, excavation of Unit 2. Note towers in background and high water to the right; *b*, beach collection in progress at downstream portion of site. Note towers and width of beach.

Laboratory Methods

Laboratory and analysis methods were again traditional. All material recovered was returned to the Laboratory of Anthropology for cleaning, sorting, and labelling. A number of items collected were either of recent origin or manifested no evidence of human use or modification and were consequently discarded. A catalogue was established with an inventory and description of all items grouped by levels within units. Artifact registration numbers were assigned to each item using the trinomial notation of provenience unit, provenience level, and item number. Thus artifact 9.3.1 was recovered from Unit 9, Level 3, and was the first item catalogued from that provenience. Discarded items were so noted under the catalogue form column for "comments". All lithic items were weighed to the nearest 0.1 g and measured to the nearest mm. Several bone fragments were collected from the beach; all appeared to be avifauna and of recent origin and were discarded. Fresh water clam shell was too fragmentary to permit identification as to species. Historic items were identified when possible as to material and probable date.

Soils and Stratigraphy

As part of an overview, the soil in the vicinity of 45-FR-317 was designated as the Burbank Soil (Gilkerson 1958). This soil has a number of characteristics including: parent material is river alluvium; it usually extends to a depth of 2-3.5 ft. (0.61-1.07 m); it is glacial outwash with horizontal stratification from stones to gravel to sands, overlain by a thin mantle of finer textured materials; these materials were susceptible to later redistribution by both wind and water; and, association with nearly level to slightly undulating relief and undissected low river terrace landforms (Gilkerson 1959:3). More specifically, the Burbank soil has a surface texture of sand to loamy fine sand which may contain significant quantities of quartzitic and granitic sand and pebbles mixed with the basaltic material. The percentage of gravel increases with depth below 12 in. The underlying stratum consists of imperfectly stratified sands, gravels, stones, and cobbles [predominantly basalt] with some acid rock types and caliche fragments. Burbank soils have a well developed lime zone. Where the surface has been exposed to wind erosion, it exhibits a desert pavement-like characteristic. Wind erosion, low moisture capacity, and high intake rate severely limit the use of this soil (Gilkerson 1958:3).

The 12 test excavation units at 45-FR-317 were all quite similar stratigraphically. Subtle color and textural variations were noted, but in general the profiles were composed of horizontal layers of sandy deposits of varying thicknesses. The virtual absence of cultural material gave the impression that we were dealing with non-site archaeology so efforts were expended towards excavation of the maximum number of units rather than towards exercises in stratigraphy for its own sake. Only after the water receded at the termination of the excavation were cultural materials encountered, and these were on the beach without stratigraphic context. Therefore, our usual practice of collecting monoliths for analysis by soil scientists (Sappington 1981b; Sappington and Carley 1983) or of bringing

soil scientists into the field (Sappington and Carley 1983b) was not followed at 45-FR-317. Three units were considered as a representative sample and these were cleaned, photographed, and drawn to scale (Fig. 6).

A composite soil profile incorporating field notes and drawings of the three walls, is provided below. Apart from variations in thickness of the layers, this description could be applied to any of the units. All colors were recorded dry using Munsell Soil Color Charts, 1975 Edition. The description based on field observation should be considered as an approximation only.

(0-6 cm b.s.). Dark grayish brown (10 YR 4/2) to light brownish gray (10 YR 6/2); may correspond to the upper portion of the A horizon, a silt loam with granular structure; the boundary is gradual, smooth, and parallel to the surface.

(6-16 cm b.s.). Pale brown (10 YR 6/3); may correspond to the A horizon, a silt loam with granular structure; the boundary is gradual, smooth, and parallel to the surface.

(16-50 cm b.s.). Brown (10 YR 4/3); may correspond to a transitional AC horizon, a sandy loam with massive structure; the boundary is gradual, smooth, and parallel to the surface. Pebbles are occasionally present.

(50-80 cm b.s.). Brown (10 YR 5/3); may correspond to a C1 horizon, a sandy clay loam with massive structure; the boundary is gradual, smooth, and parallel to the surface. Beginning at approximately 50 cm bs, the deposits become increasingly wet due to the reservoir pool level, perhaps due to capillary action. Deposits become increasingly more plastic. Pebbles are occasionally present. Common medium, distinct, pinkish gray (7.5 YR 6/2) mottles are present.

(80-120 cm b.s.). Grayish brown (10 YR 5/2); may correspond to a C2 horizon, a sandy clay loam with massive structure; the boundary is gradual, smooth, and parallel to the surface. Common medium, distinct, pinkish gray (7.5 YR 6/2) mottles are present. Note that only Unit 5 was excavated below 100 cm.

(120-150 cm b.s.). Grayish brown (10 YR 5/2); may correspond to the lower portion of a C2 or a C3 horizon, a sandy clay loam with massive structure.

Additional aspects of the stratigraphy include rodent disturbance, charcoal, and historic material. Relatively older rodent activity was noted in a number of test units at depths between 20 and 80 cm below surface (Fig. 6). No ongoing rodent activity was noted in any of the test units; perhaps the raising of the water table with impoundment of McNary Reservoir has made the site too damp for habitation. A small charcoal lens was noted in Unit 5 (Fig. 6a) but the absence of features and the minimal presence of artifacts suggests that this was associated with the overbank sediments rather than resulting from human activity. Non-diagnostic historic artifacts were encountered in three units at depths between 20 and 40 cm below surface; these items may be associated with either occupation in the general vicinity or with one of the major floods recorded since 1876.

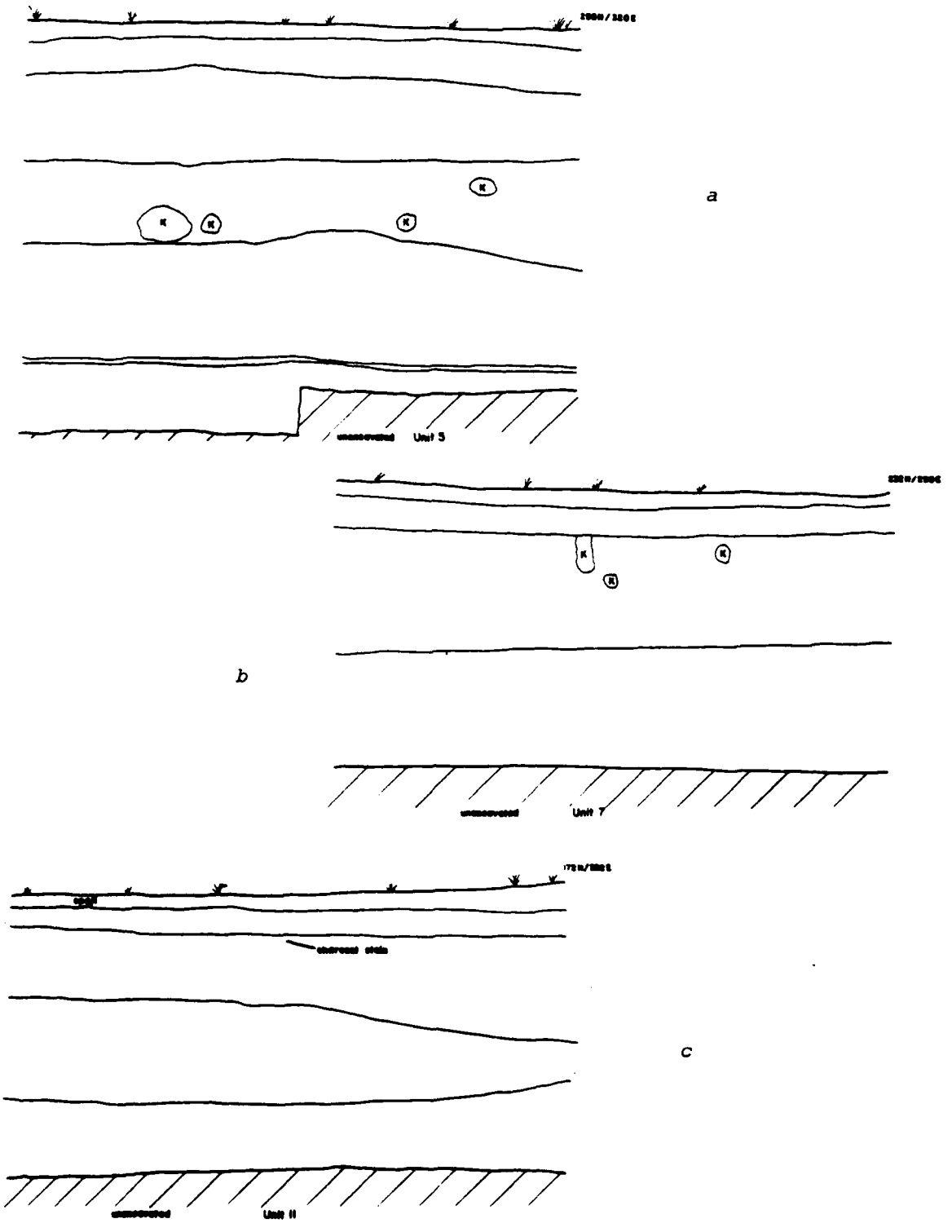

Fig. 6. Stratigraphic profiles, 45-FR-317; *a*, north wall of Unit 5; *b*, north wall of Unit 7; *c*, north wall of Unit 11. Scale 1:10.

Elsewhere in McNary Reservoir historic materials located in cutbanks 10-30 cm below surface have been associated with the 1894 flood (Thoms and others 1983:9) and floods have been examined in some detail at the Miller Site (Cleveland and others 1976:110-113). The 1894 flood reached a height of 355 ft. a.s.l. while the 1948 flood reached a height of approximately 350 ft. a.s.l. (Corps of Engineers Planning Map MD-1-4-43; Mierendorf 1976:111). Undoubtedly, the site, at an elevation of 340-345 ft., was flooded at these periods as well as in the past. Further disturbance to 45-FR-317 was in the form of cultivation as indicated by the 1948 Corps of Engineers Planning Map (MD-1-4-43).

The soils at 45-FR-317 provide little insight into our understanding of the site but do appear typical of the area in that the sandy horizons are clearly alluvium from overbank deposition. The absence of well developed horizons and paleosols suggests rapid deposition, as reported elsewhere (Cochran and Mierendorf 1982, in Thoms and others 1983:9), and argues for local climatic stability as well.

3. MATERIAL CULTURE

Introduction

Material culture recovered from 45-FR-317 consisted almost completely of lithic items, including projectile points, used flakes, cobble tools, and debitage. The projectile points are comparable to styles found elsewhere in the region permitting relative dating; the remainder of the collection is not temporally sensitive, but analysis indicates that this site possesses similarities with others in the region. In addition, historic artifacts indicate reoccupation of the area in the early twentieth century.

Lithic Materials

A variety of lithic materials were encountered at 45-FR-317. The relatively high number of cobble tools and the frequency of decortication flakes among the debitage suggest a local origin. Suitable cobbles were probably located in the basal gravel on the adjacent beach prior to inundation. All materials removed from the Miller site, 5 km (3 mi.) up the Snake River, including chalcedony/opal, chert/jasper, and silicified wood as well as basalt, granite, and quartzite were reported to be available locally (Cleveland and others 1976:70, 96). Similarly, coarse grained cobbles and chert-like cobbles are available to varying degrees some 20 km (12 mi.) upstream from the site in Upper McNary Reservoir (Thoms and others 1983:94). The latter report employed the term "chert" as a catch-all to include jasper, chalcedony, opal, mineralized wood, and chert (Thoms and others 1983:48). Similarly, no distinction is made here among the various cryptocrystalline silicates due to the usual subjectiveness of such categories as well as the probable local availability of several varieties; all such material is referred to as "chert."

Cobble tool materials are more problematical and can be approached in various ways. The Upper McNary report included all non-chert materials, that is, basalt, quartzite, granodiorite and "other very fine-grain to coarse-grain material" simply as "nonchert" (Thoms and others 1983:48), while at the Miller site the variety of material was not specified, although basalt was preferred for replication (Cleveland and others 1976:96). Categories of lithic material at 45-FR-317 are rather straightforward: basalt refers to generally fine-grained, opaque, gray to black material; quartzite is fine grained, generally translucent, and variable in color with a characteristic "sparkle;" metamorphic refers to the remaining material which tends to be dark in color but often with veins of lighter material, grainier than basalt with less distinct concoidal fracture scars. Fairly broad experience with a variety of lithic materials lead to the creation of the metamorphic category; it includes materials resembling neither basalt nor quartzite, both of which are easily recognizable. Finally, obsidian

refers to a volcanic translucent to transparent natural glass, for which the nearest sources are available in central Oregon to the south, and south central Washington to the west of the site (Sappington 1981a, 1982). This is the only lithic material not assumed to represent a local origin.

Flaked Lithic Artifacts

A total of nine flaked lithic artifacts was recovered from 45-FR-317. Three of these are projectile points; one is a biface fragment, possibly a portion of a projectile point; and the remaining five are used flakes. Two items were recovered from test units with the remainder collected from the beach units.

Projectile points

Each of the projectile points represents a different type (Table 1). The advantage of the relative diversity of the collection is offset somewhat by the absence of a dominant framework for temporal and stylistic comparisons. Fortunately, each type is well represented in the regional literature so that comparisons can be made.

Large side notched point

One large side notched projectile point (7.5.1) (Fig. 7*c*) was recovered in a test excavation unit (Unit 7, Level 5). This item is intact except for a break across one basal corner. Material is chert.

Description

length:	44 mm	neck width:	16 mm
width:	27 mm	weight:	7.8+ g
thickness:	9 mm		

Large side notched projectile points are relatively common in southeastern and south central Washington. On the lower Snake River they are associated with the Late Cascade subphase dated 6700-5000 BP (Leonhardy and Rice 1970:6-11, Fig. 4). Along the Columbia River, similar items are known as Cold Springs side notched points dating as early as 5000 BP (Nelson 1969:114). The item from 45-FR-317 is quite comparable to Nelson's Type 2 from Component III at the Sunset Creek site dated 4000-3600 BP (1969:114, Fig. 37, p. 9).

Large corner notched point

A large corner notched point (17.0.14) (Fig. 7*b*) was recovered from the central portion of the beach. This item is intact except for a break across one shoulder. Material is chert.

Description

length: 32 mm
width: 27+ mm
thickness: 4 mm
neck width: 5 mm
weight: 2.6+ g

This item is very comparable to Nelson's Type 5, Variant 5A Quilomene Bar Base-Notched (1969:117-118, Fig. 38b, c). The length, thickness, lithic material, and presumably the width for 17.0.4 all fall within his dimensions. This type is present in the Quilomene Bar phase and occurs from Late Frenchman Springs (ca. 2800 BP) to the historic period (Nelson 1969:33, 118). This item compares with points from the Early Harder phase, dated 2500-650 BP (Leonhardy and Rice 1970:14-17, Fig. 9).

Small corner notched point

A single small corner notched point (19.0.1) (Fig. 7*a*) was also recovered from the beach. This point is intact and is the only obsidian item from 45-FR-317.

Description

length: 17 mm
width: 10 mm
thickness: 2 mm
neck width: 4 mm
weight: 0.2 g

This point very closely corresponds to a type named a number of years ago, the Wallula Rectangular Stemmed (Osborne, Bryan, and Crabtree 1961:305). Wallula Rectangular Stemmed points are found at sites along the middle Columbia River from below the confluence with the Snake, as far up as the Sunset Creek site, where they were described as Type 8G and dated to the Cayuse III subphase, 350 BP to historic period 85 (Nelson 1969:129, 133, Fig. 40-41). On the Lower Snake River, small corner notched points are typical of the late Harder phase dated 650 BP to the historic period (Leonhardy and Rice 1970:17-20, Fig. 11; 1980).

Biface fragment

A biface fragment (22.0.21) (Table 1, Fig. 7*d*) apparently represents the proximal end of a large stemmed projectile point broken below the shoulders. This unique item closely resembles Stemmed Point Form 8 at the Sunset Creek site where a single specimen was recovered; no comparable items were located (Nelson 1969:148, Fig. 42i). The Sunset Creek item was recovered from Component VII, Subcomponent VIIF dated 1350-250 BP (Nelson 1969:80-81).

Used flakes

Used flakes (Table 1) are items which do not exhibit intentional modification but do have portions of their edges characterized by small step and concoidal scars and/or rounding. These attributes are considered to be the result of deliberate contact through use with a more resistant surface. Used flakes are common in archaeological sites of all periods on the lower Snake River (Leonhardy and Rice 1970) and are not temporally nor stylistically diagnostic.

Five items are considered used flakes, four of which are chert and one quartzite (14.0.30). All are complete. One (12.4.4) was excavated; the remainder were collected on the beach.

Description	Range	Mean
length:	24-81 mm	38.4 mm
width:	18-79 mm	35.0 mm
thickness:	3-23 mm	8.8 mm
weight:	1.0-69.4 g	16.2 g

Cobble Tools and Cores

A total of 31 cobble tools and 15 cores were recovered from 45-FR-317 (Table 2). These items have been divided into four general groups.

Bifaces

Nine bifaces were recovered from the beach area (Table 2) (Figs. 7 and 8). All are made from individual cobbles rather than from spalls and all have one or more sharp edges indicating a lack of pounding or battering use which would have resulted in the formation of dull edges. In addition, one (21.0.3) (Fig. 8*a*) possesses a single ground edge. Edge ground cobbles are rather widely distributed across the Columbia Plateau; various authors have discussed these items which date between 10,000-3800 BP and are considered to have been hammerstones used for the production of prismatic blades (Nelson 1969:15, 24; Leonhardy 1970:148; Crabtree and Swanson 1968:49-58) or for preparing grass seed (Butler 1968:Fig. 22).

Cobble bifaces have been considered choppers (Leonhardy 1970:116, 149) and may have been used for marrow extraction as well (Flenniken 1976:100-101). Cobble bifaces with sharp edges have been associated with tool manufacturing (Thoms 1983:93-94, Table 12) while those with battered edges have been associated with processing tasks.

The cobble bifaces are summarized below.

TABLE 1

Description and distribution of flaked lithic tools, 45-FR-317

Item No.	Category	Material[a]	Condition[b]	Length (mm)	Width (mm)	Thickness (mm)	Weight (mm)	Comment	Fig.
7.5.1	large side notched projectile point	c	b d	44	27	9	7.8	missing 1 corner	7c
12.4.4	used flake	c	c	25	21	10	3.2		
14.0.30	used flake	q	c	81	73	23	69.4		
14.0.47	used flake	c	c	24	19	3	1.0		
17.0.14	large corner notched projectile point	c	b c	32	27	4	2.6	missing 1 shoulder	7b
17.0.66	used flake	c	b c	24	18	3	1.7	burned	
19.0.1	small corner notched projectile point	o	c	17	10	2	0.2		7a
21.0.19	used flake	c	c	36	38	5	5.5		
22.0.21	biface	c	b c	20	23	4	2.8		7d

[a] Material: c=cryptocrystalline silica, o=obsidian, q=quartzite.
[b] Condition: c=complete, b d=broken diagonally, b c=broken crosswise.

TABLE 2

Description and distribution of cobble tools and cores, 45-FR-317

Item No.	Category	Material[a]	Condition[b]	Length (mm)	Width (mm)	Thickness (mm)	Weight (mm)	Comment[c]	Fig.
2.2.3	core	b	c	54	42	18	59	P MW	
4.3.1	core	m	c	80	125	52	687.5	X	
12.2.6	spall	m	b d	60	64	8	45	P BES	
13.0.7	biface	b	c	135	95	56	1012.9	C SE	
13.0.8	biface	m	c	86	60	19	137.8	C SE	
13.0.9	core	m	c	115	105	39	615	X	
13.0.10	uniface	m	c	112	44	28	155	S SE	
13.0.19	spall	b	c	28	24	10	26	S BES	
13.0.21	biface	m	b c	90	48	37	125	C SE	
13.0.31	spall	m	c	80	115	28	316.5	P BES	
13.0.34	spall	q	c	116	89	22	318	P BES	
14.0.1	core	m	c	155	108	46	937.8	X	
14.0.2	biface	m	c	165	135	58	1395.1	C SE	
14.0.3	core	q	c	44	44	22	44	P	
14.0.4	core	q	c	40	36	10	20.5	P	
14.0.5	spall	q	b d	30	32	12	8	C WE	
14.0.6	spall	m	b c	60	71	17	83	P BES	
14.0.20	spall	m	b d	62	63	19	60	S BES	
15.0.2	core	m	c	58	44	42	145	P	
15.0.4	core	m	c	110	61	21	209.5	P	
15.0.14	uniface	m	c	96	92	21	220	C SES	
16.0.3	biface	m	c	130	95	36	610	C SE	7e
17.0.7	core	m	c	74	66	53	307	R	
17.0.8	uniface	b	c	87	85	40	331.2	C SE	8b
17.0.10	core	m	c	59	54	50	136	R	
17.0.13	uniface	m	c	147	115	36	575.4	S BES	9
17.0.16	uniface	b	c	80	55	21	92.5	S SE	
17.0.30	spall	b	c	1[illegible]	25	4	1.1	S BE	
18.0.17	uniface	m	c	105	190	66	1975.2	C BE	

TABLE 2 (*continued*)

Item No.	Category	Material[a]	Condition[b]	Length (mm)	Width (mm)	Thickness (mm)	Weight (mm)	Comment[c]	Fig.
18.0.18	biface	m	c	115	85	48	462.4	C SE	
18.0.19	spall	b	c	112	85	38	358	S BES	
18.0.21	core	m	c	108	77	30	367.7	R	
18.0.23	core	m	c	65	47	44	166	R	
18.0.24	uniface	m	c	77	58	34	201.5	C SE	
18.0.26	biface	b	c	72	65	29	159.5	C SES	8c
18.0.27	uniface	m	c	80	77	19	161.7	C SE	
18.0.28	core	q	c	45	34	18	30	R	
18.0.66	uniface	m	c	87	70	25	138	S BE	
18.0.85	spall	q	b c/l	63	37	19	43	S BE	
18.0.92	spall	q	c	37	83	24	64	CP BE	
18.0.94	spall	q	c	84	94	15	141	P BES	
19.0.7	core	c	c	21	15	12	5.3	X	
21.0.3	biface	q	c	90	77	33	234.2	C SE	8a
21.0.4	biface	b	c	87	83	39	240	C SE	
21.0.18	core	c	c	21	39	29	26.2	X	
22.0.20	uniface	m	c	107	113	56	999.8	C SE	

[a] material: b=basalt, c=cryptocrystalline silica, m=metamorphic, q=quartzite.

[b] condition: c=complete, b c=broken crosswise, b l=broken lengthwise, b c/l=broken crosswise and lengthwise.

[c] comment: X=prepared core; R=random; R MW=random, minimally worked; P BES=primary, battered edges; S BE=secondary, battered edge; S BES=secondary, battered edges; C SE=cobble, sharp edge; C SES=cobble, sharp edges; S SE=spall, sharp edge; CP WE=cortex on platform, wear on edge; CP BE=cortex on platform, battered edge.

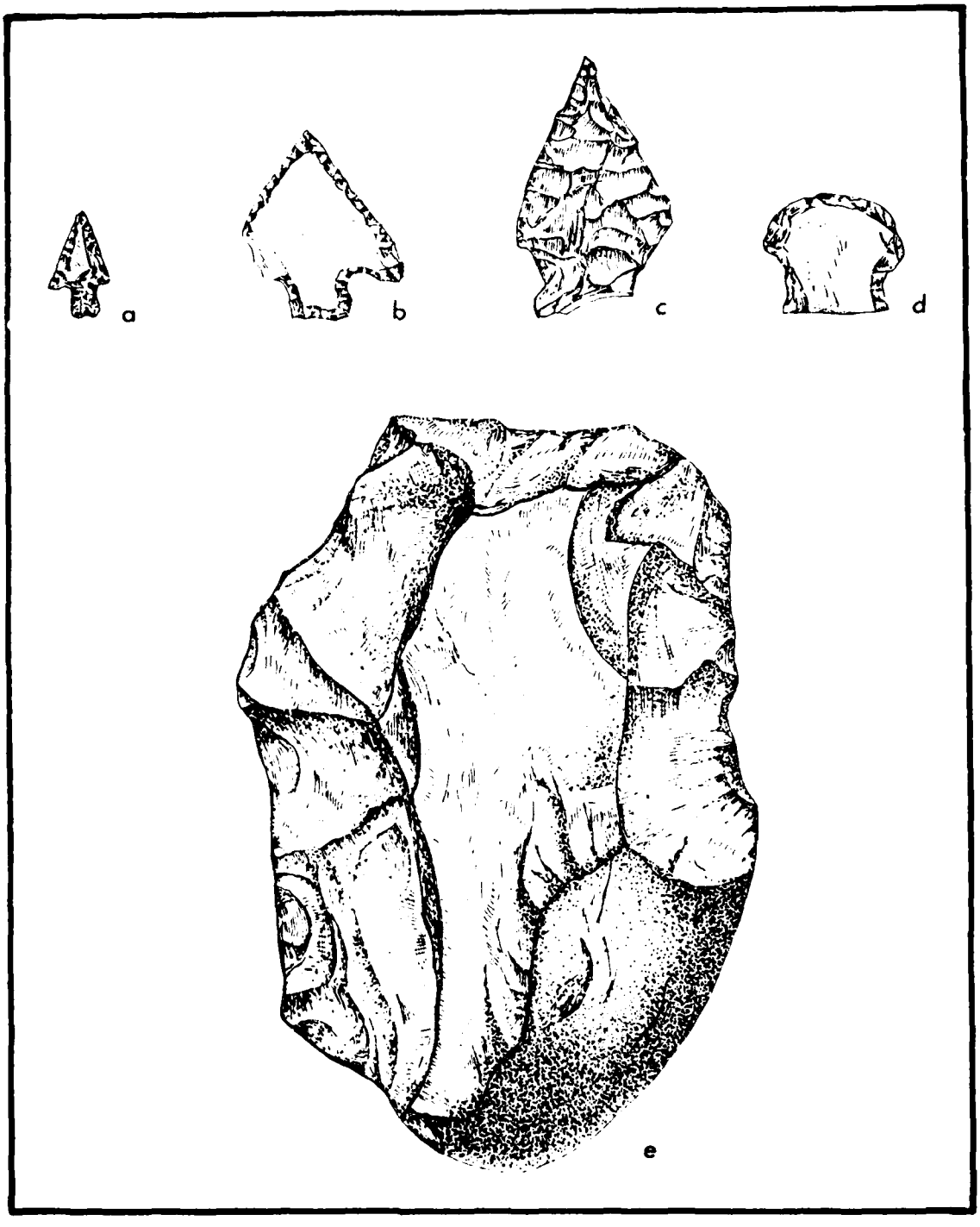

Fig. 7. Flaked lithic artifacts and cobble tool, 45-FR-317; *a*, small corner notched projectile point, obsidian (19.0.1); *b*, large corner notched projectile point, chert (17.0.14); *c*, large side notched projectile point, chert (7.5.1); *d*, biface, chert (22.0.21); *e*, cobble biface, metamorphic (16.0.3). Scale 1:1.

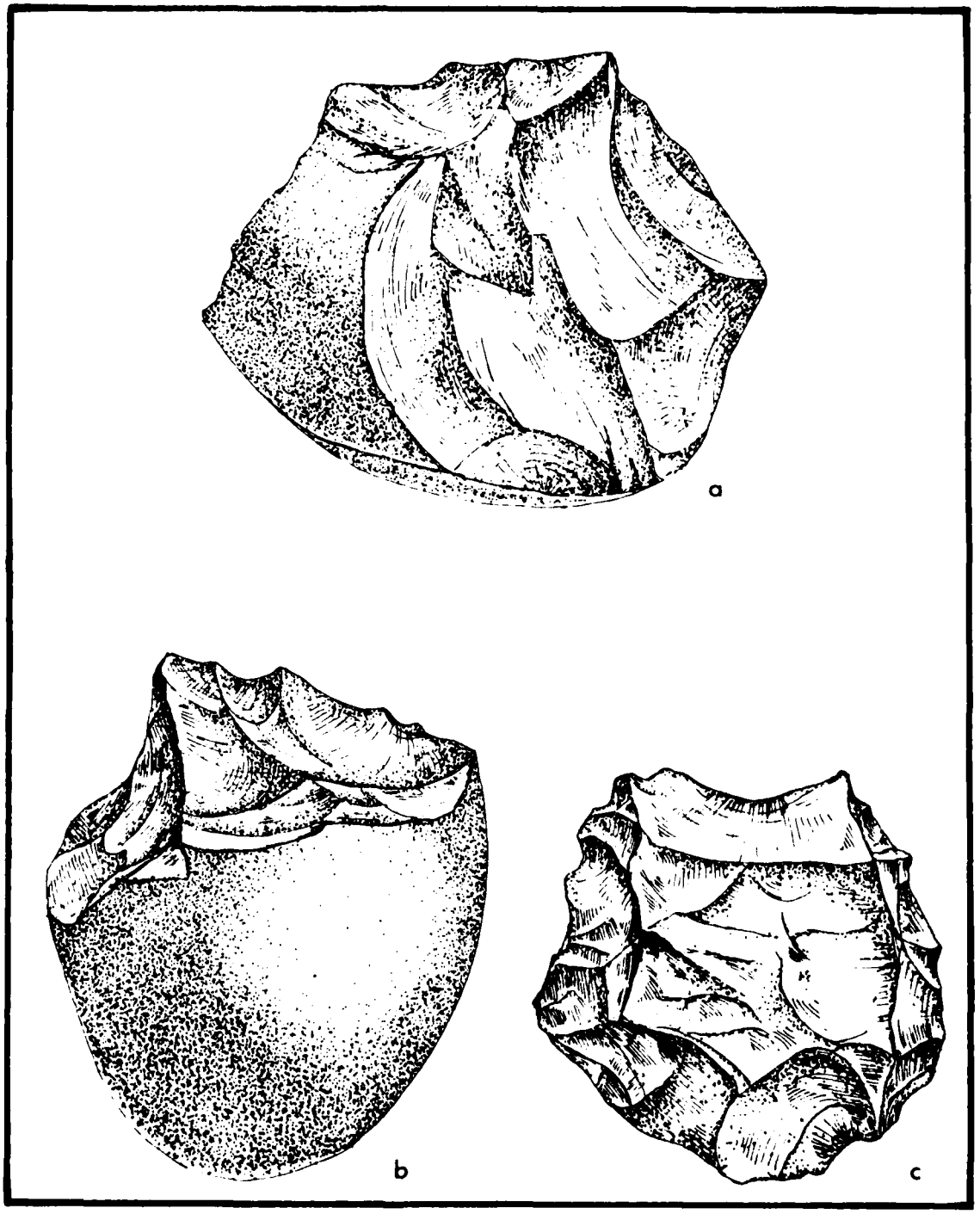

Fig. 8. Cobble tools, 45-FR-317; *a*, cobble biface, quartzite (21.0.3); *b*, cobble uniface, basalt (17.0.8); *c*, cobble biface, basalt (18.0.26). Scale 1:1.

Description	Range	Mean
length:	72-165 mm	110.0 mm
width:	45-135 mm	82.6 mm
thickness:	19-58 mm	39.4 mm
weight:	137.8-1395.1 g	531.5 g

material: metamorphic - 5
basalt - 3
quartzite - 1

Unifaces

Ten cobble unifaces were recovered from the beach area (Table 2) (Figs. 7, 8, and 9). Most (60%) are made directly from cobbles with the remainder (40%) made from cobble spalls. Three unifaces exhibit battered edges indicating use for pounding or hammering tasks. Similar items have been considered scraping planes or choppers (Nelson 1969:65), cobble choppers or cobble scrapers (Leonhardy 1970:115, 117, 149), and as tools for extracting marrow from mammal limb bones (Flenniken 1976:97). Unifaces with sharp edges were recently considered as being associated with tool manufacturing, while those with battered edges were associated with processing tasks (Thoms and others 1983:93-94, Table 12).

Description	Range	Mean
length:	77-147 mm	97.8 mm
width:	44-190 mm	89.9 mm
thickness:	19-66 mm	34.6 mm
weight:	92.5-1975.8 g	485.0 g

material: metamorphic - 8
basalt - 2

Battered cobble spalls

Twelve cobble spalls (Table 2) exhibit use wear in the form of a battered edge or edges. This battering is similar to that discussed above for used flakes and cobble unifaces, that is, it is characterized by crushing on portions of an otherwise sharp edge. Similar items have been referred to as cobble spall choppers (Leonhardy 1970:115) and as ovate knives employed for disarticulation of large mammal limbs (Flenniken 1976:93, 101). Five (41.7%) are primary decortication spalls, five (41.7%) are secondary decortication spalls, and two (16.6%) retain cortex on the platform only.

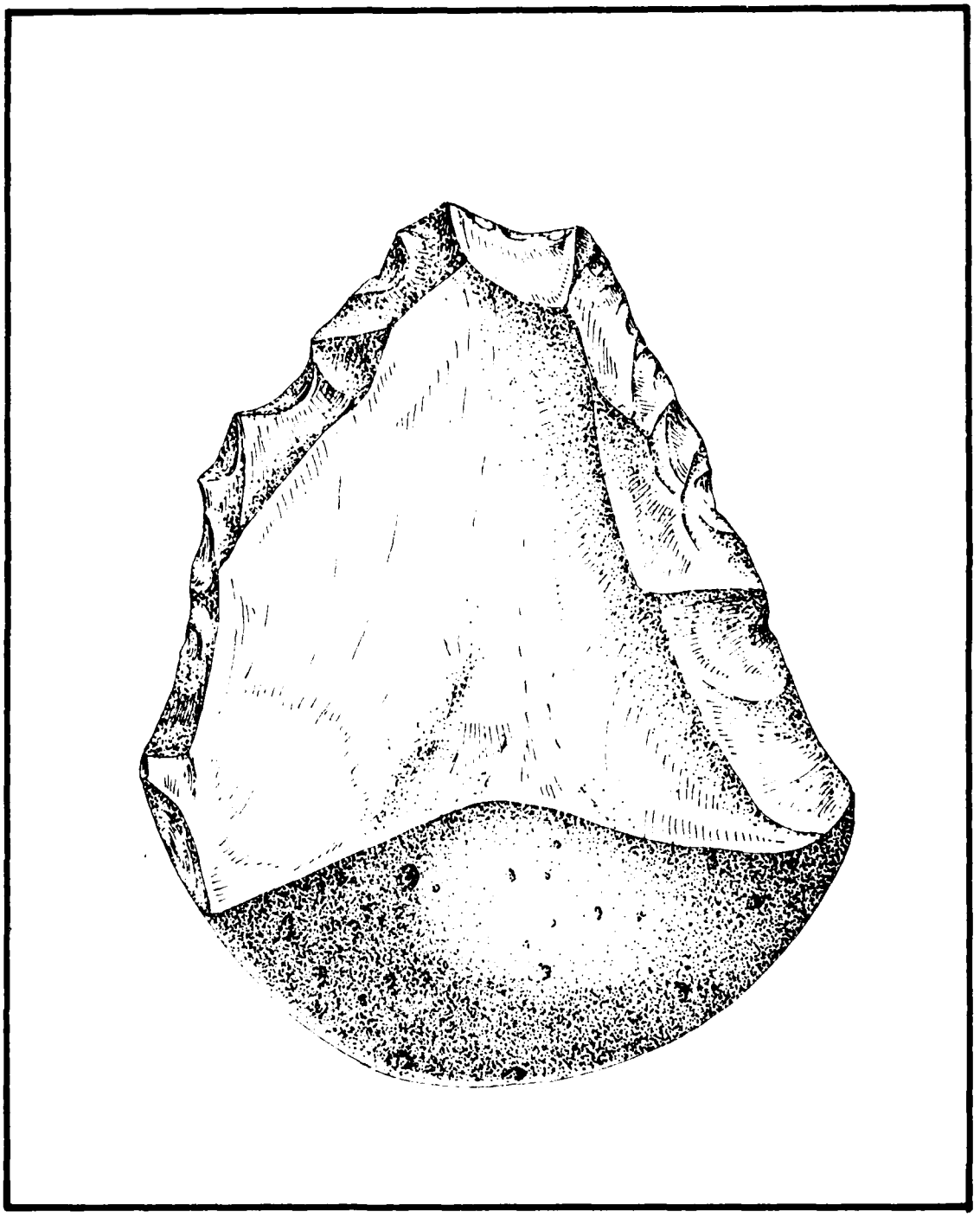

Fig. 9. Cobble tool, 45-FR-317. Cobble uniface, metamorphic (17.0.13). Scale 1:1.

Description	Range	Mean
length:	13-116 mm	67.8 mm
width:	24-115 mm	65.8 mm
thickness:	4-38 mm	18.0 mm
weight:	1.1-358 g	174.9 g

material: quartzite - 5
metamorphic - 4
basalt - 3

Cores

A total of 15 cobble cores make this the most frequent of all lithic categories (Table 2). Two of these (2.2.3 and 4.3.1) were excavated, with the remainder from the beach units. Cores were employed as the means of obtaining flakes and spalls; although sometimes cores were employed as tools, none of these bear any use wear evidence. The cores were divided into two categories based on whether the flakes were removed randomly or from a surface prepared by driving off a large spall to create a single striking platform. Random cores are more numerous and are summarized below.

Description	Range	Mean
length:	40-140 mm	65.7 mm
width:	34-77 mm	50.5 mm
thickness:	10-53 mm	30.7 mm
weight:	20.5-367.7 g	148.5 g

material: metamorphic - 6
quartzite - 3
basalt - 1

Prepared cores are relatively less frequent but larger and are summarized below.

Description	Range	Mean
length:	21-155 mm	78.4 mm
width:	15-125 mm	78.4 mm
thickness:	12-52 mm	35.6 mm
weight:	5.3-937.8 g	454.4 g

material: metamorphic - 3
chert - 2

Debitage

Debitage (Table 3) includes items of various lithic materials that are the byproducts of the manufacture of lithic tools, but are not tools themselves. All stages in the manufacture of lithic tools result in the creation of debitage, from the removal of cortex to resharpening of biface

TABLE 3

Distribution of debitage, 45-FR-317

Unit	Basalt		Quartzite		Metamorphic		Chert		Total	
	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight
2.2					1	10			1	10
3.2			1	17					1	17
4.9					1	13			1	13
10.1					1	363.5			1	363.5
11.1	2	10.7							2	10.7
11.2					1	3.5			1	3.5
11.3			1	20.5	1	26			2	46.5
11.7			1	390.2					1	390.2
12.3			1	5.1					1	5.1
12.4			1	6	1	25.2			2	31.2
12.5					1	3.0			1	3.0
12.6			1	7.7					1	7.7
13.0	8	164.4	3	48.3	10	213.5			21	426.2
14.0	8	11.7	2	8	9	137.9			17	157.6
15.0			2	74.5	2	10.5	1	3.3	5	88.3
16.0	2	172.5	3	133.5					5	306
17.0	5	107.5	6	795.2	4	88.5	4	15.6	19	1006.8
18.0	13	78.8	9	310	17	253.3	7	12.6	46	654.7
19.0	1	9.3	1	4.4	1	6.2	5	7.2	2	27.1
20.0	2	27	3	15.5	1	2	1	2.9	7	47.4
21.0	1	26	2	39	2	23.1			5	88.1
22.0	8	14.6	4	16.1	2	160.5	2	4.5	16	195.7
TOTAL	50	622.5	41	1891	55	1339.7	20	46.1	166	3899.3
Mean	12.4		46.1		24.4		2.3		23.5	

edges; debitage also results as attrition through use wear and some non-diagnostic shatter might also be the result of the accidental breakage of tools by trampling or agricultural activities. Because cortex is easily recognizable and indicative of various stages in the manufacture of lithic tools, the presence and amount of cortex was recorded.

Debitage is the most frequent of all categories of cultural material at 45-FR-317 (75.1%). Debitage was widely distributed, occurring in six excavation units and all ten beach collection units. Overall, mean weight is 23.5 g, with cortex present on 121 items (72.9%). The type of cortex includes primary decortication (16.5%), covering a portion of the dorsal surface, and cortex on the platform only (46.3%).

Metamorphic material is most common for debitage by count (33.1%) but is second by weight (34.3%). Nearly all (83.6%) items retain cortex, with 13 primary decortication spalls, 13 secondary decortication spalls, and 20 with cortex on the platform. Mean weight is slightly larger than overall at 24.4 g.

Basalt is second most common by count (30.1%) but third by weight (16%). Well over half (62%) of basalt debitage retains cortex, with three primary decortication spalls and 14 each of secondary and cortex on platform only spalls. Mean weight is 12.4 g.

Quartzite is third most common by count (24.7%) but is most common by weight (48.5%). Most (78%) retain cortex with four primary decortication spalls, 15 secondary decortication spalls, and 14 with cortex on the platform only. Mean weight is the highest of all materials at 46.1 g.

Chert is fourth both by count (12.1%) and weight (1.2%). Cortex is retained on only one-fourth (25%) of all debitage with three secondary decortication flakes and two with cortex on the platform only. Mean weight is by far the smallest at 2.3 g.

In summary, the high percentage of decortication flakes indicates that the cobble tools recovered from 45-FR-317 were probably produced on the site. This situation fits well with the high ratio of cores relative to tools (15:31). Most likely, the metamorphic, basalt, and quartzite cobbles were collected in gravel deposits at the site or immediately adjacent to it. In contrast, the reduction of chert cobbles and the fabrication of chert tools was a much less common activity. Chert cores and decortication flakes are infrequent, and primary decortication flakes are absent. There is no evidence for the manufacture of obsidian tools at the site.

Historic Artifacts

Twenty-three historic artifacts were recovered from three excavation units of 45-FR-317 (Table 4). All three units (3, 4, 12) exist in the same vicinity of the site, along the river bank and along the dirt road through the site (Fig. 3). Of the excavated artifacts, 14 were recovered from 20-30 cm below surface and one was recovered from as deep as 30-40 cm below

TABLE 4

Distribution of historic material, 45-FR-317

	Description	Level 0	1	2	3	4	Total
Excavation Units							
3	White earthenware			1			
	Bottle glass fragment				1		
4	Bottle glass fragments			5	9		
	Nail fragments				2		
	Bolt		1				
	Concrete				1		
12	White earthenware					1	
	Bottle glass fragment			1			
	Spike				1		
	Subtotal		1	7	14	1	23
Beach Units							
13	Bottle base fragment	1					
14	Cartridge	1					
17	Shotgun shell base	1					
	White earthenware	4					
18	White earthenware	11					
19	White earthenware	14					
	Bottle base fragment	1					
20	White earthenware	9					
	Stoneware	1					
	Shotgun shell base	1					
21	Bottle base fragment	1					
22	White earthenware	1					
	Porcelain	1					
	Subtotal	64					64
	TOTAL						87

surface. None of the historic materials recovered were complete enough to yield information beyond the basic descriptive categories of ceramic: white earthenware; stemware and porcelain bottle glass fragments (colors have been catalogued); nail fragments; concrete; and spike.

Within the beach units collected, historic material appeared primarily in units 18-22, near the excavation units which yielded historic materials (Table 4). Among the artifacts on the beach was a white earthenware fragment (22.0.1), probably a portion of an oyster bowl, marked with Homer Laughlin and dating ca. 1901-1915 (Gates and Ormerod 1982:135, Fig. 115*a*). Most of the fragments were plain, white earthenware known as "hotel ware" and stylistically suggest a date of ca. 1900-1959. A piece of blue on white transfer print earthenware (19.0.26) was present as well as one porcelain fragment (22.0.6) with a blue hand-painted decoration. Diagnostic glass along the beach included a complete rectangular, automatic machine made medicine bottle (21.0.1), clear, with a screw top, and base marked: "CONTENTS/3-1/2 FL. OZ". A round, light green bottle base (19.0.22) appears to have the Illinois Pacific Glass mark of a triangle enclosing "IPG", dating ca. 1902-1930 (Toulouse 1971:269). Most (95.3%) of the historic material was nondiagnostic or of modern origin.

A sparse historic component appears to exist along the northwest edge of 45-FR-317 and dates to the early twentieth century. The historic material is not extensive, heavily concentrated, or highly diagnostic.

4. SUMMARY AND CONCLUSIONS

As a result of archaeological work conducted near Sacajawea State Park in June 1983, an area was tested and resulted in the recording of 45-FR-317. Both prehistoric and historic cultural materials were encountered, with prehistoric items predominating.

A total of 221 prehistoric lithic items were recovered at 45-FR-317 consisting of flaked lithic tools, cobble tools, and debitage. Twenty items were recovered from the 12 excavation units, five of which are tools (Figs. 10 and 11) and the remainder debitage. The vertical distribution of lithic material in the test units indicates a rather random deposition between levels 1-9: three items in Level 1 (15%), five items in Level 2 (25%), four items in Level 3 (20%), three items in Level 4 (15%), two items in Level 5 (10%), one each in Levels 6, 7, and 9 (5%), and none in Level 8. The highest concentration of material was in Level 2, dropping off steadily with increasing depth from that point. The single most productive provenience was unit 12, Level 4, near the river bank, with three items.

Viewed overall, these materials indicate a very minimal occupation. Of the 12 excavation units, six were devoid of cultural material; from over 24 m^3 of deposits screened through relatively fine 3 mm mesh wire we recovered just 1.7 items per unit and only 0.17 per each of the 121 10 cm levels.

The majority of lithic material (91%) was collected from the surface of the beach within ten units of approximately 20 m^2; a total area of 4000 m^3 (Figs. 10 and 11). This material represents just one item per linear m and just 0.05 item per m^2.

Historic material was even more sporadic, with a total of 87 items recovered, many of which are of modern origin. Twenty three items including an iron spike, a bolt, wire, nails, concrete, white earthenware sherds, and bottle glass fragments were recovered but none are more than generally diagnostic. Vertical distribution is between levels 1-4: one item in Level 1 (4.3%), seven items in Level 2 (30.4%), 14 in Level 3 (61%), and one item in Level 4 (4.3%). Levels demonstrating the greatest occupation are the same as for the prehistoric material. Sixty four historic items were collected on the beach, most of which are in the same general categories as those excavated, but three can be dated spproximately to the span of 1900-1930. These items are associated with the same area of the site as excavation units having historic material. Whether these items represent occupation near the site or upstream remains unknown. The beach collection represents less than 0.4 items per linear m and less than 0.03 per m^2.

A summary of the diagnostic items indicates a very sporadic prehistoric occupation spanning a period of approximately 5000 years, based on projectile point styles. The infrequency of material suggests a very intermittent, rather than a constant, habitation at 45-FR-317. Stylistic similarities indicate cultural affiliations with both the Mid-Columbia and

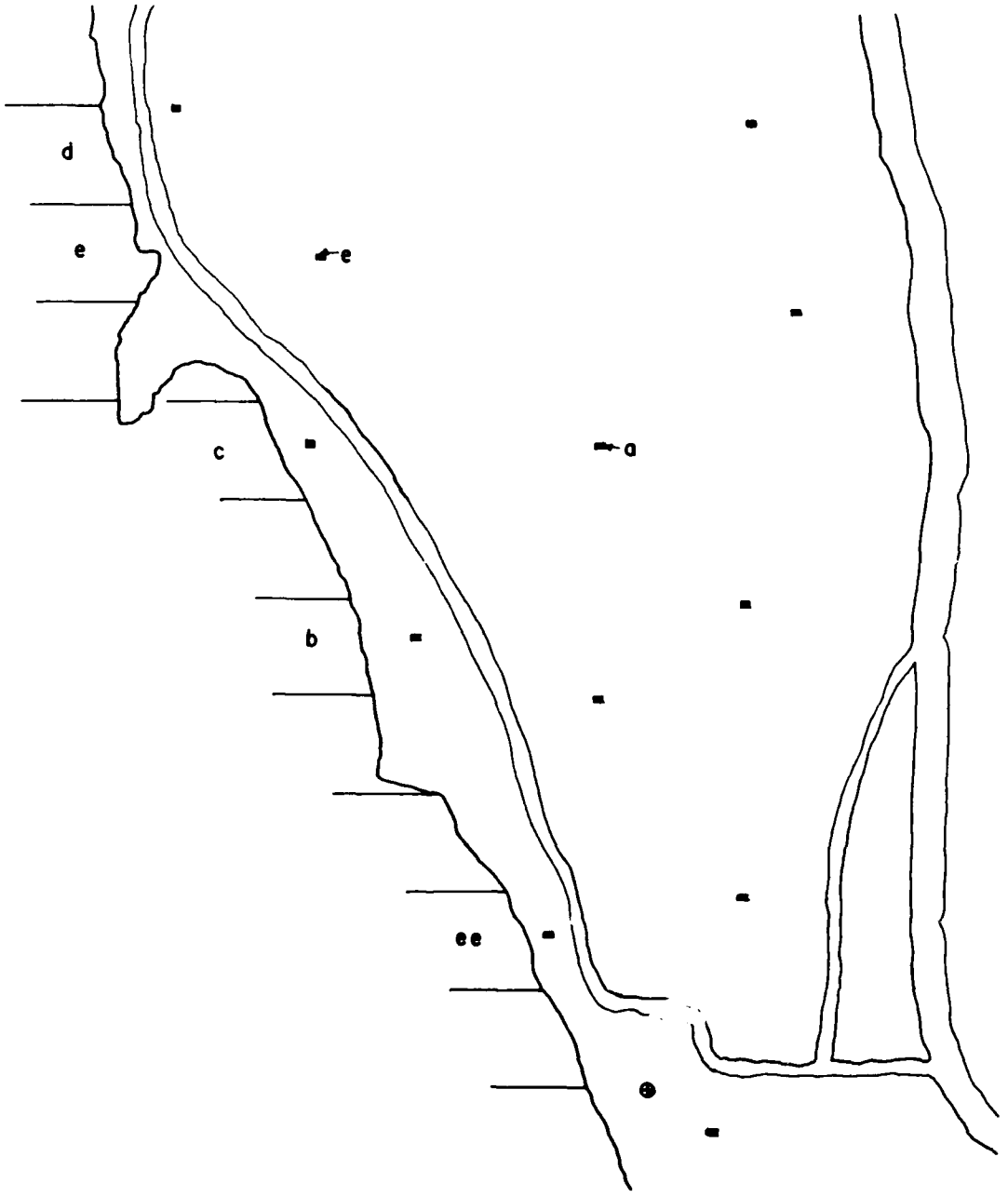

Fig. 10. Distribution of flaked lithic tools within excavation and beach collection units (see Fig. 3); *a*, large side notched point; *b*, large corner notched point; *c*, small corner notched point; *d*, biface, *e*, used flake.

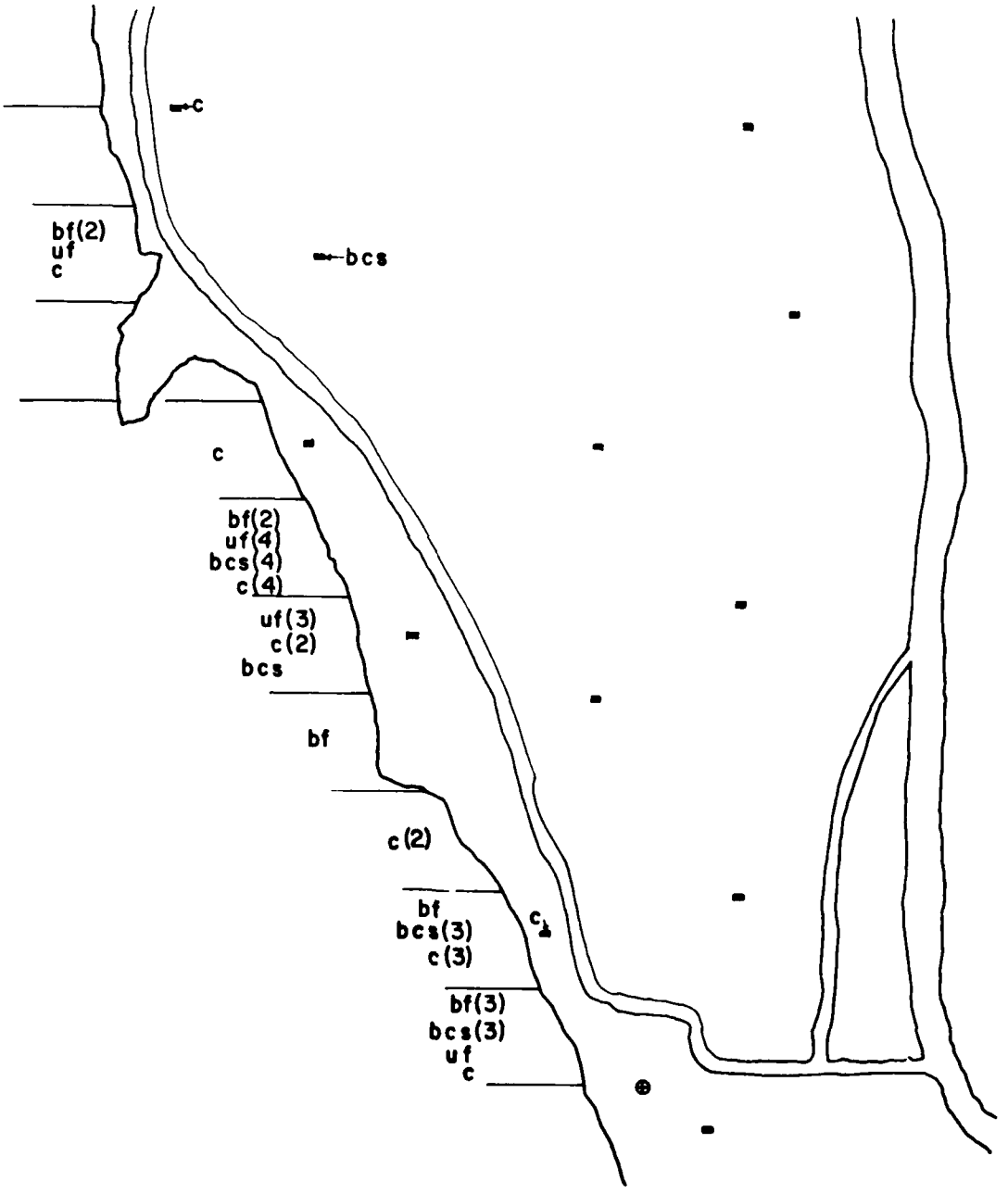

Fig. 11. Distribution of cobble tools within excavation and beach collection units (see Fig. 3); bf=biface, uf=uniface, bcs=battered cobble spall, c=core.

Lower Snake River regions, as the geographic position of the site would suggest. As stated above, the historic material dates 1900-1930, much later than the occupation of Ainsworth, the nearby historic townsite.

The original extent of cultural material remains unknown due to the fact that at least half of the potential area has been inundated. Testing and beach collections indicate that it extends some 200 m along the Columbia River and probably not beyond the road, as essentially all units in that vicinity were sterile. Depth ranges from Levels 2 and 3, 10-30 cm below surface. The association of prehistoric and historic cultural material within the same levels may be a result of cultivation, which occurred in the site area ca. 1948.

The combination of limited cultural materials with a very sporadic distribution indicates that this location did not figure prominently in either aboriginal or Euroamerican occupation of the region, especially considering the nature of other sites located in the immediate vicinity. This situation may be related to erosion of the site due to impoundment of McNary Reservoir, but surveys conducted both before and after impoundment did not encounter a site at this locus so most likely the limited presence of material reflects its actual distribution. The impact to the site in the past remains conjectural, but test excavation and surface collection in June 1983 indicate that further work at 45-FR-317 is unlikely to yield information significant to an understanding of the prehistory or history of the region.

5. MANAGEMENT RECOMMENDATIONS

Approximately half of the potential site area of 45-FR-317 has been inundated by McNary Reservoir. Other disturbance was caused by cultivation and by pipeline construction. The remainder possesses a very minimal record of prehistoric and historic occupation. The prehistoric occupation is represented by an average of one item per 0.83 m^2 in the excavated units and one item per 20 m^2 on the beach. Considering that typological dating suggests an intermittent occupation span representing a period of some 5000 years, all indications are that this location was of little importance as a habitation site to the aboriginal occupants of the area. The historic occupation is even more ephemeral, with diagnostic materials present only on the beach dating to the period between 1900-1930. Therefore, it does not appear likely that 45-FR-317 will yield information pertinent to the prehistory or history of the region according to the criteria of 36 CFR 800 and is ineligible for nomination to the National Register of Historic Places. No further work for preservation or mitigation is recommended.

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