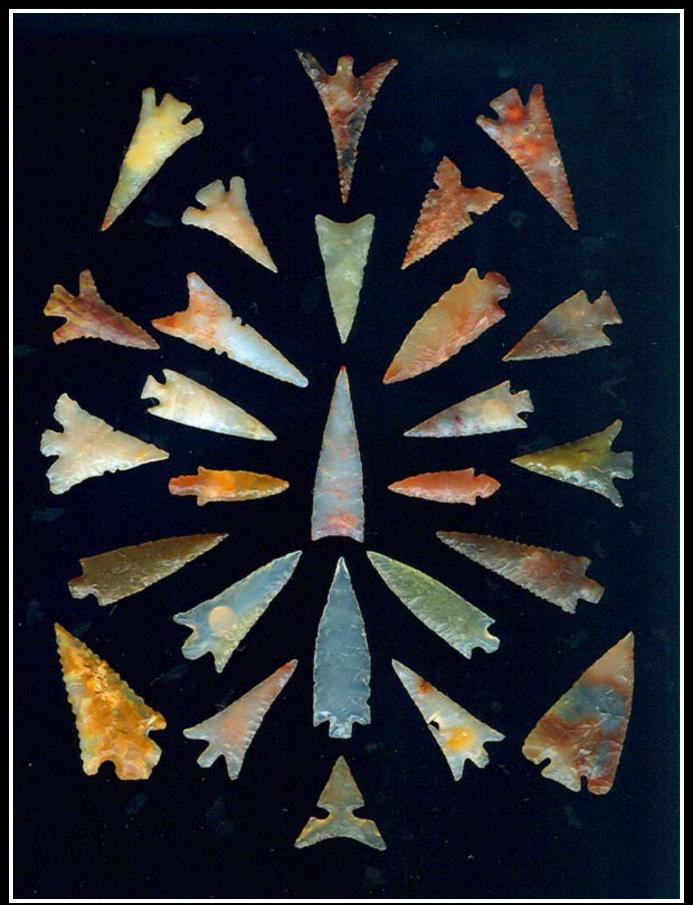
Volume 2



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By: David Heath

FREE

This document does not intend to cover, describe or define all artifacts found within the Columbia River region. This document will present several recognized typologies and artifacts from the region. In several cases, typologies and artifacts may extend beyond the Columbia Plateau, Long Narrows and Portland Basin regions.

Definitions are based upon research and records derived from consultation with; and information obtained from collectors and authorities. They are subject to revision as further experience and investigation may show is necessary or desirable.

COVER ART From the Collection of John Logan Photo By JOHN LOGAN

A SPECIAL THANKS IS GIVEN TO THE FOLLOWING INDIVIDUALS FOR THEIR GENEROUS CONTRIBUTIONS AND TECHNICAL SUPPORT:

TERRY BAXTER MARK BERRETH* RUSS FRANKS DEL GREER* TONY HARDIE* TAD KREAGER JOHN LOGAN* RODNEY MICHEL* RANDY MCNEICE* RAY SNYDER* BEN STERMER* JEREMEY WILLIAMS JOHN WILLIAMS NUMEROUS UNIDENTIFIED PHOTO CONTRIBUTIONS * (Technical contribution for this body of work)

This day I completed my thirty-first year. I reflected that I had as yet done but little, very little indeed, to further the happiness of the human race, or to advance the information of the succeeding generation. I viewed with regret the many hours I have spent in indolence, and now sorely feel the want of that information which those hours would have given me had they been judiciously expended...**Meriwether Lewis, August 1805**

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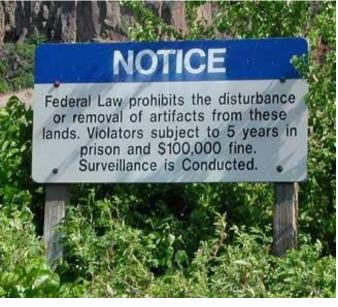
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Contact In Situ: Insitu@comcast.net

FORWARD

When it comes to collecting or more specifically Arrowhead Hunting, know the laws and obey them. Archaeological Resources are finite and need to be protected and safeguarded against those that give artifact collecting a back-eye.

Gone are the days of the 40's and 50's where would be collectors could go out and screen, dig or otherwise excavate sites for artifacts. Think and collect responsibly so that all may continue to enjoy this hobby and vocation.





WASHINGTON STATE

Public Records - The Washington Office of Archaeology and Historic Preservation (OAHP) maintains records of significant historic and prehistoric sites that have been listed on the Washington State Archaeological Site Inventory. The individual records are known as "site forms." Archaeological sites are assigned standard numbers. Site forms, as well as most other site-specific information about archaeological properties, are exempt from public disclosure under State law to prevent vandalism and looting.

Code Book: Revised Code of Washington Citation: §27.53.040 through §27.53.050 Section Title: Archeological resources, abandoned archeological resources: definitions Summary: Declares the following to be archeological resources: all sites, objects, structures, artifacts, implements and loca-

beclares the following to be archeological resources. an sites, objects, structures, arthacts, implements and tocations of prehistorical or archeological interest, whether previously recorded or still unrecognized, including those pertaining to prehistoric and historic American Indian or aboriginal burials, campsites, dwellings and habitation sites, including rock shelters and caves, their artifacts and implements of culture such as projectile points, arrowheads, skeletal remains, grave goods, basketry, pestles, mauls and grinding stones, knives, scrapers, rock carvings and paintings and other implements and artifacts of any material that are located in, on or under the surface of any lands or waters owned by or under the possession, custody or control of the state or any county, city or political subdivision of the state. Declares to be the public property of the state all historic archeological resources abandoned for thirty years or more in, on or under the surface of any public lands or waters, owned by or under the possession, custody or control of the state, including all ships or aircraft and any part of the contents thereof, and all treasure trove.

FORWARD

Code Book: Revised Code of Washington

Citation: §27.53.060

Section Title: Disturbing archeological resource or site without written permit or permission unlawful Summary:

Declares it to be unlawful on private or public lands of the state for any person, firm, corporation or agency or institution of the state or a political subdivision of the state knowingly to remove, alter, dig into or excavate by use of any mechanical, hydraulic or other means, or to damage, deface or destroy any historic or prehistoric archeological resource or site, or remove any archeological object from such site without having obtained a written permit from the director of the Department of Community, Trade and Economic Development. Exempts from the provisions of this chapter the disturbance or removal of Indian graves or cairns, or any glyptic or painted record of any tribe or peoples, or historic graves as defined in chapter 68.05, which shall be punishable as a class C felony punishable under chapter 9A.20. Requires the director, prior to issuance of a permit, to obtain the consent of the private or public owner or agency responsible for the management of the property, who may condition its consent on the execution of a separate agreement with the applicant. Requires the director, in consultation with the affected tribes, to develop guidelines for the issuance of permits. Requires that a permit or other agreement be physically present while such activity is being conducted. **Exempts from the provisions of this section the removal of artifacts found exposed on the surface of the ground that are not historic archeological resources or sites.**

Code Book: Revised Code of Washington Citation: §27.53.090 Section Title: Archeological sites and resources: violations; penalty Summary:

Declares that any person, firm or corporation violating any of the provisions of this chapter shall be guilty of a misdemeanor, with each day of continued violation constituting a separate offense. Requires such offenses to be reported to the appropriate law enforcement agency or to the director of the Department of Community, Trade and Economic Development.



OREGON STATE

Public Records - The State Historic Preservation Office oversees cooperative efforts with federal, state, tribal, and local governments, and other interested parties to preserve the cultural and historic resources of Oregon. The division documents and protects archeological sites and disburses federal grants in support of archeological investigations. Archeological Permits, Archeological Site Forms, Archeological Site Reports, Archeological Site Maps, and the Tribal Government Coordination Records may be exempt from public disclosure under ORS 192.501 (11) for the life of the records.

Code Book: Oregon Revised Statutes

Citation: §358.920 through §358.923

Section Title: Archeological objects and sites: prohibited conduct; when collection may be held notwithstanding §358.920

Summary:

(§358.920)(1) Prohibits a person from excavating, injuring, destroying or altering an archeological site or object or removing an archeological object located on public or private lands in the state unless that activity is authorized by a permit issued under §390.235. Permits the collection of an arrowhead from the surface of public or private land without the use of any tool. (2) Prohibits a person from selling, purchasing, trading, bartering

FORWARD

or exchanging, or from offering to do so, any archeological object that has been removed from an archeological site on public land or obtained from private land within the state without the written permission of the owner. (3) Prohibits a person from selling, purchasing, trading, bartering or exchanging, or from offering to do so, any archeological object unless the person furnishes the purchaser a certificate of origin. Requires, for objects obtained from public land, such certificate to include: a statement that the object was originally acquired before October 31, 1983; location obtained and a statement on how the object came into the current owner's possession; and a statement that the object is not human remains, a funerary or sacred object, or an object of cultural patrimony. Requires, for objects obtained from private land, such certificate to include: a statement that the object is not human remains, a funerary or sacred object, or an object of cultural patrimony; and a copy of the written permission of the landowner. (4)(a) Directs that objects acquired after October 15, 1983, from public lands are under the stewardship of the state and shall be delivered to the Oregon State Museum of Anthropology. Directs the museum to work with the appropriate Indian tribe and other interested parties to develop appropriate curatorial facilities for artifacts and other material records, photographs and documents relating to the cultural or historic properties in the state. Requires, in general, that artifacts be curated as close to the community of their origin as their proper care allows. Authorizes the museum, after consultation with the appropriate Indian tribe, to enter into agreements with organizations outside the state to provide curatorial services if it is not feasible to curate artifacts within the state. (b) States that an object that is human remains, a funerary or sacred object, or an object of cultural patrimony shall be dealt with according to §§97.740-97.760. (5) Prohibits a person from excavating an archeological site on privately owned property without the property owner's written permission. (6) Requires a person, if human remains are encountered during excavations of an archeological site, to stop excavation and report the find to the landowner, the state police, the state historic preservation officer and the Commission on Indian Services. (7) Declares that this section does not apply to a person who disturbs an Indian cairn or burial. States that such person shall comply with §§97.740-97.760 and §97.990(5)(b). (8) Declares that violation of this section is a Class B misdemeanor. (§358.923) Allows any collection of objects described in §358.920(3) and (4) to be held if the collection: (1) is kept within the state; (2) is curated under customary museum standards; and (3) is available for nondestructive study by museums and educational institutions located in the state.

Code Book: Oregon Revised Statutes Citation: §358.915 Section Title: Archeological objects and sites: application Summary:

Declares that the provisions of §192.005, §§192.501-192.505, §273.990, §§358.905-358.955, and §390.235 do not apply to a person who unintentionally discovers an archeological object that has been exposed by the forces of nature on public land or private property and retains the object for personal use, except for sacred objects, human remains, funerary objects or objects of cultural patrimony.

358.920 Prohibited conduct; exception; penalty. (1)(a) A person may not excavate, injure, destroy or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon unless that activity is authorized by a permit issued under ORS 390.235. (b) Collection of an arrowhead from the surface of public or private land is permitted if collection can be accomplished without the use of any tool.

KNOW THE LAWS

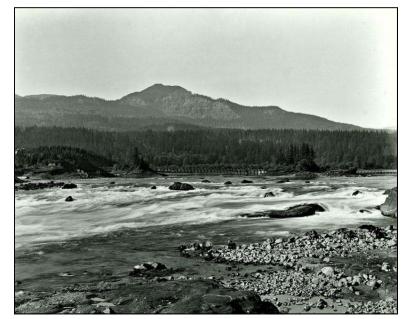
The excerpts for Washington and Oregon laws were provided for reference. It is up to the individual to read and know the laws governing Archaeological Resources. Individuals should require documented proof as to the origin of any artifact made available for purchase. Strictly avoid any sacred objects, human remains, funerary objects or objects of cultural patrimony. Note: US Parks, US Forest, BLM, Army Corps of Engineers to name just a few also have jurisdictions in some sections of the state.

FAMOUS RAPIDS



Cascade Rapids (center) Cascade Locks (Left) and Bridge of the Gods (Courtesy of the U.S. Geological Survey)

These rapids are now gone due to the construction of the Bonneville Dam, which was started in 1933 and finished in 1937. The rapids and the spur of land are part of the Bonneville Landslide, which is thought to have occurred around 1,100 AD *(USGS)*



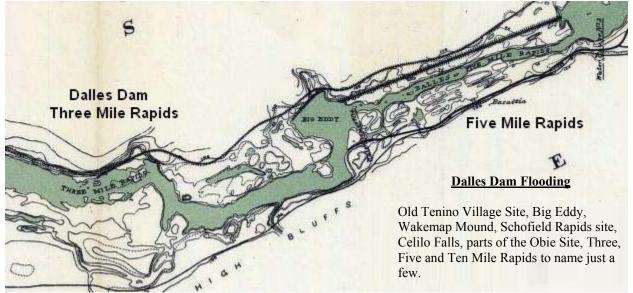
Cascade Rapids (Courtesy of the U.S. Geological Survey)

FAMOUS RAPIDS



Five Mile Rapids (Courtesy of the U.S. Geological Survey)

"Short Narrows" and "Long Narrows" were names given to two locations on the Columbia River where the river constricted to form dangerous rapids. These rapids are now under the waters of Lake Celilo, behind The Dalles Dam. Prior to the dam, rapids in this vicinity were called "Three Mile Rapids" (present location of the Dalles Dam), "Five Mile Rapids" (The Long Narrows), and "Ten Mile Rapids" (The Short Narrows), which represent their distance east from the boat landing at the Dalles. *(USGS)*



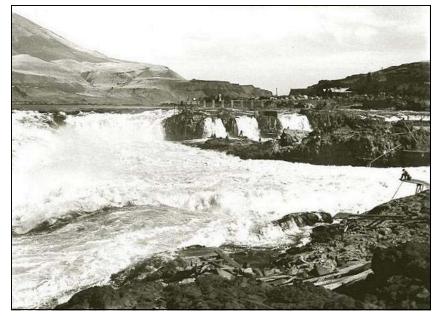
Three Mile and Five Mile Rapids - 1887 (courtesy of the U.S. Geological Survey)

FAMOUS RAPIDS



Celilo Falls (courtesy of the U.S. Geological Survey)

Celilo Falls and the upstream end of the Dalles-Celilo canal shown. Celilo village is to the right; Chief, Big, & Kiska Islands also shown; Miller Island at top. Circa 1900s. *(USGS)*



Celilo Falls (courtesy of the BPA)

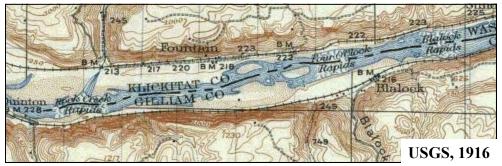
FAMOUS RAPIDS



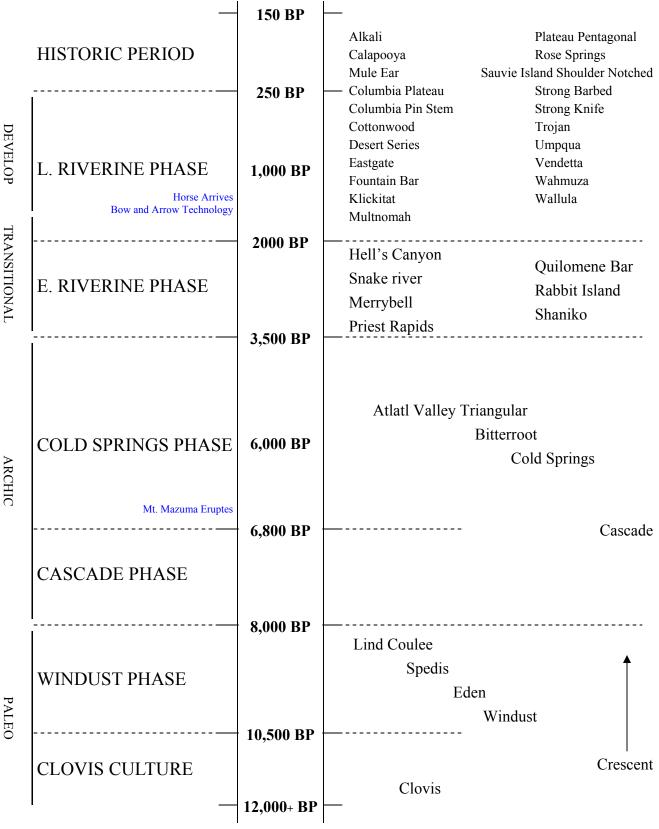
Indian Rapids Also Known As: John Day Rapids (courtesy of OHS 92212)

This view of Indian Rapids (John Day Rapids), taken in the late 1800s shows the rapids as fairly tame during low water levels. Indian Rapids have been submerged beneath the waters of Lake Umatilla, the reservoir behind John Day Dam, since the dam's completion in 1971.

The John Day Dam inundated such famous Columbia River sites as Umatilla Rapids, Owyhee Rapids, Blalock Rapids and Island, Thanksgiving Island, Four O'Clock Rapids, Fountain Bar, Rock Creek Rapids, John Day Rapids and the John Day Bar.



"GENERAL" CULTURAL CHRONOLOGY



CLOVIS CULTURE

Clovis Culture (12,000 - 10,500 BP) - the Clovis Phase is characterized by small, highly mobile bands of hunter/gatherers that exploited a wide range of subsistence resources, including bison and elk (Rice and Stilson 1987). Clovis Phase sites are usually small, exhibit low artifact densities, and are associated with early land-forms, especially upland plateaus.

CLOVIS



East Wenatchee Clovis Cache Courtesy Douglas PUD

In May 1987, workers at R&R Orchards just north of Pangborn Airport in East Wentachee, Washington uncovered a Clovis cache while digging a ditch for an irrigation pipe. In August of that year, Robert Mierendorf and R. Congdon dug test pits at the site and uncovered artifacts below and next to the irrigation ditch. Upon realizing that the site is an important Clovis feature, the landowner (Mack Richey) placed concrete slabs over the site for protection (Mehringer 1989:1).

Excavation of the site resumed

in April 1988 under the direction of Peter Mehringer, with participants ranging from Washington State University members, the Colville Confederated Tribes, and renowned Paleoindian experts from all over the United States. October 1990, Mack and Susan Richey had selected Michael Gramly to excavate the site more completely. The excavation lasted for one month and was fraught with controversy. Representatives from the Colville Confederated Tribes protested the excavation (Rea 1990), other archaeologists contested Gramly's methods and interpretations (Mierendorf 1997), and the ownership of the artifacts and of the property itself became an issue (Wheat 1991, 1992a, 1992b). The dispute eventually settled with Mack Richey donating the assemblage to the Washington State History Museum in Tacoma, and with the Washington State Historical Society purchasing the rights to excavate the site in the future.

WINDUST PHASE

Windust Phase (10,000-8,000 BP) - The Windust Phase is characterized by small, mobile bands of foragers/collectors that exploited plant and animal resources during a seasonal round (Chatters 1986). The few cultural deposits known from this phase are generally small and exhibit low artifact densities. Large shouldered and large basal-notched lanceolate projectile points are diagnostic of this phase.

The Windust Phase is typically defined for the lower Snake River region of the Columbia Plateau and has been documented by components ranging in age from 10,000 to 8000 B.P. at Windust Caves, Marmes Rockshelter, Granite Point, and Lind Coulee. Artifact assemblages considered typical of this phase include lanceolate and oval knives, a distinctive shouldered point known as Windust, large scraper planes, and utilized flakes. Edge-ground cobbles, bone awls, needles and atlatl spurs, and antler and shell artifacts are often found in the assemblages.



Windust (10,000 - 8,000 BP) is a weak shouldered lanceolate point with straight to contracting stem and straight to concave base; basal grinding does occur.

Type Site: Windust Caves (Rice 1965); Marmes Rockshelter (Rice 1972)

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WINDUST PHASE

Lind Coulee (10,000-8,000 BP) Site (45GR97) near Warden, Washington was the first locality in Eastern Washington to yield evidence of paleo-Indian hunters. The early excavation work by Dougherty (1956) was one of the first to use the radiocarbon method, dating the earliest occupation at 8,700 years B.P.

Uncovered were the butchered remains of bison along with people's everyday tools and personal effects. Several small, delicate bone needles suggest that leather clothes were sewn for warmth and protection. Small stone pallettes were stained with red and yellow ochre. This indicates that colored pigments may have been used for decorating clothing or skin (Daugherty 1956).

LIND COULEE



Lind Coulee Type (A) - A well made, medium sized, leaf shape-stemmed lanceolate with weak rounded shoulders, tapered stem and a convex base. Basal grinding may be present. Flaking patterns are variable to mixed, although collateral and transverse flaking is present. It is thin and crosssections are biconvex.

Lind Coulee Type (B) - A well made, medium sized, leaf shape-stemmed lanceolate with sharp lateral shoulders, tapered stem and a convex base. Basal grinding may be present. Flaking patterns are variable to mixed, although collateral and transverse flaking is present. It is thin and cross-sections are biconvex.

Lind Coulee Type (C) - A well made, medium sized, leaf shape-stemmed lanceolate with weak to sharp lateral shoulders, parallel-sided stem and a convex base. Basal grinding may be present. Flaking patterns are variable to mixed, although collateral and transverse flaking is present. It is thin and cross-sections are biconvex.

Identified & Described by: R. Daugherty (1956 Archaeology of the Lind Coulee Site, Washington. Proceeding of the American Philosophical Society)

WINDUST PHASE

SPEDIS



Locally named by collectors, it is thought the name originated after the SP&S Rail station of the same name. The area was, for a time, known as the Spedis Township and Indian Village. The site was near the Big Eddy on the Columbia River and directly southwest of Wake Map Mound. It is likely that Spedis is the Echelute village recorded in 1806 by the Corp of Discovery (Biddel, 1926).

The name Spedis was given to it when the S.P.&S. Rwy. had completed their line and established a sidetrack there, about 1906, and was in honor of Bill Spedis, a very old and likeable Indian patriarch." (Biddel, 1926).

Spedis (10,000-8,000 BP) is a small to medium size, thin, narrow, lanceolate point with a contracting basal area. Base can be concave or convex. Some examples have grinding on the stem margins, some on margins and the base, others not at all.

Forms may vary from a rather Folsomoid form to a nearly Humboldt configuration, although most are rather small, rarely exceeding 1.5 inches.

Note: The Oversteet Guide has defined additional Spedis forms, but to me these other forms appear to be Windust variations upon further review of work published by Lohse.

CASCADE PHASE

Cascade (Vantage and Old Cordilleran) Phase (8,000 to 4,500 B.P) The Cascade Phase is characterized by lanceolate "Cascade" style, project point, lanceolate and triangular knives, scrapers, edge-ground cobbles, atlatl weights, bone awls, needles, and atlatl spurs. (Leonhardy and Rice 1970).

CASCADE KNIFE

Defined by: Butler (1961 Old Cordilleran Culture of the Pacific Northwest)





Cascade (Willow-leaf) (8,000 - 4,500 B.P) is a small foliate (willow leaf-shaped) point often with serrated edges and a plano- convex cross-section. It is the hallmark of the Cascade Phase *(*Leon-hardy and Rice 1970), although some similar forms persist into Historic period in some parts of the Columbia. Serrated variants of the type dominate components of the Cascade Phase that predate the Mazama ash-fall (e.g. Butler 1962; Shiner 1961). Used in arming detachable tips of spears used with an Atlatl.

COLD SPRINGS PHASE

Cold Springs Phase (6,000 to 4,000 B.P) followed the Cascade Phase. It was a period where housing became more permanent, as people moved into pit house villages along the rivers. This phase saw improvements in tools for hunting, fishing, and cooking. Some of the petroglyphs in the Columbia Plateau date to this period. Cold Springs Phase projectile points where typically large, and had notches in the sides for better attachment to a shaft.

COLD SPRINGS



Cold Springs (6,000 - 4,000 B.P) is commonly found with Cascade type variants. It is a large to medium sized point with deep to shallow lateral notches. Outline and proportions differ markedly, as does treatment of the basal margins. Contracting lateral basal margins produce a decidedly lanceolate outline, while straight lateral margins may indicate creation on a triangular blank. Cold Spring points will generally have notches placed higher on the lateral margins and are never basally notched. Flaking pattern is usually variable, though mixed and collateral flaking do occur. Cross-sections are predominantly biconvex, though specimens with planoconvex and trapezoidal cross-sections are found.

Cold Springs is thought by some to represent evidence of interaction with Swanson's Bitterroot culture sphere of southeastern Idaho; modification and change is also cited as a result of contact with the Desert Culture complex (Butler 1961:70).

Identified by: J. Shiner (1961 The McNary Reservoir) Redefined by: B. Butler (1962 Contributions to the Prehistory of the Columbia Plateau)

COLD SPRINGS PHASE

ATLATL VALLEY TRIANGULAR



Atlatl Valley Triangular (7,000 - 4,000 B.P) - A small to medium sized triangular knife form, with straight to convex base, examples can be bifacial or uniface, beveling can occur after repeated sharpening. This form appears to be handheld.

Note: Lloyd McLeod collected on the Atlatl Valley Site (45KL41 and 37) and reported his findings in OAS Screenings (1958). The type site is located in Klickitat Co. Washington near the famous "She Who Watches"





COLD SPRINGS PHASE

BITTERROOT CULTURE SPHERE OF SOUTHEASTERN IDAHO

BITTEROOT



Bitterroot (7,000 - 5,000 B.P) is a medium sized triangular shaped point with deep, angled side notches. The base is straight to convex.

Bitterroot Culture Sphere represented in a number of sites in the Columbia Plateau region in eastern Oregon and in southern and eastern Idaho which Swanson (1962) equates with the northern Shoshone. Projectile points of this complex are side-notched and essentially indistinguishable from those from plains environments to the east (termed Logan Creek or Simonsen), and from those of the Mummy Cave Complex of the eastern slopes of the Rocky Mountains from Alberta to Wyoming.

In some circles there is a debate on weather or not the Bitterroot and the Northern Side Notched are in fact the same typology. I'd prefer to avoid this debate. The Bitterroot was defined based on work done by Swanson in Eastern Idaho.

Type Site: Birch Creek Valley, ID Defined by (Swanson et al., 1964)

RIVERINE PHASE

Early Riverine Phase (4,500 to 2,500 B.P) is characterized by the introduction of semi-subterranean houses and the presence of specialized camps for hunting, root collecting, and plant processing. Archeologists have suggested that the ethnographic Plateau pattern emerged by the end of this phase (e.g., Nelson 1969). Several styles of smaller, contracting stemmed projectile points are diagnostic of this period

- Tucannon Phase Lower Snake River region of the Columbia Plateau
- Frenchman Springs Mid Columbia River region of the Columbia Plateau
- Wildcat Canyon Phase Columbia River Gorge region
- Merrybell Phase Lower Columbia River, Portland Basin

Late Riverine Phase (2,500 to 250 B.P) followed the Early Riverine Phase. It lasted until the introduction of horses and Old World trade goods. During this period trade expanded. Materials like shells, stone for arrowheads, and other minerals were traded. Other trade goods, such as those incorporating wood, hides, or feathers, woven baskets, and textiles, were likely traded, but these have not survived to be studied. In the Columbia Plateau region, the material culture includes scrapers, net sinkers, pestle and mortars, utilized cobble spalls and various projectile point types. Here, the large side-notched points seem to persist later than in the Great Basin, and triangular, stemmed and corner-notched forms are also found. Towards the end of this period smaller points again become apparent with the introduction of the bow and arrow, though the larger points seem to persist for some time alongside the smaller ones of similar forms. Tool making expanded, and a diverse collection of tools for cutting, chopping, and carving were developed. These tools were used to make bone harpoons, awls, and needles, but were also used to make luxury items like hairpins, beads, pipes, pendants, and dice. Many items were decorated with designs featuring humans or animals. Reliance on the Columbia River for subsistence predominated.

- Cayuse Phase Lower Snake River region of the Columbia Plateau
- Plateau Phase Mid Columbia River region of the Columbia Plateau
- Multnomah Phase Lower Columbia River, Portland Basin

LATE RIVERINE PHASE COLUMBIA PLATEAU



Columbia Plateau (500 - 200 BP) is a small size, thin, well made triangular point with strong, often swept winged and pointed barbs, a short parallel to expanding stem, bases can be bifurcated and blade margins can be serrated.

Also Referred to: Columbia Stemmed

Described: H.Osborne, R. Crabtree, A. Bryan (1952) Type Sites: Sunset Creek Site - 45KT28 (Nelson 1969) Wanapum Dam (Greengo 1982).

LATE RIVERINE PHASE COLUMBIA PLATEAU VARIATIONS WITHIN THE TYPOLOGY



Represent above are some of the typical variation often encountered with the Columbia Plateau. These examples are found on the lower sections of the Columbia River and are typical of the barbed arrow points found with in the Portland Basin. They are a small sized, thin constricting stemmed arrow point with strong pointed barbs, blade margin tend to be straight and often serrated. Barbs often extend one-half the stem length. Some have referred to these as Rabbit Island, Snake River Arrow and Multnomah Barbed.



ADDITIONAL VARIANT FORMS FOR THE COLUMBIA PLATEAU POINT

LATE RIVERINE PHASE TO HISTORIC

COLUMBIA RIVER PIN STEM



Columbia River Pin Stem (500 - 200 BP) is a small size, thin, well made triangular point with strong, with rounded shoulders and a narrow, rounded stem.

LATE RIVERINE PHASE TO HISTORIC DESERT SERIES



Desert Delta



Desert Sierra



Desert General

Desert Series (700 - 200) are small side-notched triangular point and generally have the notches placed lower on the lateral margins. Basal treatment on these forms is variable, with markedly convex, concave and notched bases, and straight to contracting lateral basal margins. These are small, delicate points, usually highly symmetrical, and often exhibiting a characteristic winged appearance. Flaking pattern is variable. Serrated blade margins occur. Cross-sections are almost entirely biconvex.

General sub-type designated by: (Baumhoff and Byrne 1959)

Also Referred to: Plateau Side-notched Desert Side-notched

LATE RIVERINE PHASE TO HISTORIC EASTGATE



Eastgate (1,500 - 400 BP) is a small, thin triangular point with convex to straight blade margins that terminate in squared barbs that often extend down to the base of the stem. Bases expanding and can be bifurested, flaking patterns tend to be variable, although mixed and uniform flaking patterns tend to be variable.

cated, flaking patterns tend to be variable, although mixed and uniform flaking will occur. Blade margins can be serrated, cross-sections will tend to be regularly biconvex.

Eastgate is defined as part of the Rose Springs cluster (Thomas, 1981 and Justice, Stone age Spears and Arrow points, 2002).

Type Site, Eastgate, Churchill Co., Nevada. Named by R. Heizer and M. Baumhoff (1961)

EARLY RIVERINE PHASE FOUNTAIN BAR



Fountain Bar (3,000 - 200 B.P) Most examples appear to resemble other early reworked dart forms such as the Hell's Canyon or Snake River (E. Riverine Phase) with the exception that it only has a single barb and are typically corner or side notched.

In 1989, avocational archaeologist Dr. Harold ("Hal") Bergen donated his archaeological collection to the Burke Museum. The collection, which contains site reports, maps, photographs, and over 14,000 artifacts represents decades of work by Dr. Bergen and his late wife, Marjory Bergen. It is estimated 1,626 cultural items from this collection were removed from the eroded campsites along the river banks at the Fountain Bar between 1955 and 1958.

Seaman devotes an entire section to the Fountain Bar Site in his book, "Indian Relics of the Pacific Northwest." Fountain Bar was estimated at two miles long and located a few miles up



river from Rock Creek. By 1914, the bar had become a series or rolling dunes and rock art was located at both ends of the bar. The site was collected from the mid 1800s up until it was drowned with the building of the John Day Dam.

In 1811, David Thompson camped at the bar and reported a population of four to five hundred living on or in close proximity to the bar. Seaman noted that there was not a lot of historic trade items found on the bar.

Note: Two examples noted above may be reworked Columbia Plateau. Type Site: Fountain Bar, Klickitat Co. Washington (45-KL-15)

EARLY RIVERINE PHASE FRENCHMAN SPRINGS



Frenchman Springs (4,500 - 2,500 BP) is a medium sized, broad stemmed dart, square to tapered shoulders, stems are straight to slightly expanding, convex expanding base, stem grinding seldom encountered, blade margins can be serrated. Frenchman Springs are found in association with Rabbit Island darts. Note: Frenchman Springs lacks any indentation or notch near the shoulder as is often seen with the Lind Coulee.

Frenchman Springs Phase saw a shift in land use patterns denoted by the appearance of small,



Frenchman Springs Coulee Kittitas County Washington

semi-permanent winter pithouse villages in the valleys and an increase in the number of sites containing plant processing tools in upland areas. Cultural change is also marked by increased population levels, aggregation in villages, greater reliance on stored foods, and dispersion from winter villages to small camps or residential groups during the spring, summer, and fall. (Galm et al. 1981).

Type Site: Shalkop Site (Swanson 1962)

LATE RIVERINE PHASE TO HISTORIC HELLS CANYON - BASAL NOTHCED



Hell's Canyon Basal-Notched (1,200 - 200 BP) is a small to medium size dart point with deep basal notches, angling diagonally upward to create a moderately expanded stem. The blade has a triangular, thin and carefully flaked form. Blade margins range from recurved to slightly incurvate, straight or excurvate. Notches are narrow and parallel-sided. The Barbs tend to be broad, rectangular in outline, terminating in rounded or squared ends. Flaking patterns are variable, but tend toward regular to mixed. Cross-sections are usually biconvex.



Defined by: W. Cladwell, O. Mallory (1967)



LATE RIVERINE PHASE TO HISTORIC HELLS CANYON - CORNER NOTHCED



Hell's Canyon Corner-Notched (1,200 - 200 BP) is a small to medium size dart point, blade region is triangular with straight to excurvate margins; shoulders are barbed and are typically rounded. The Stem is typically short and slightly to prominently expanded. Basal margins are straight to convex. The expanded stem has rounded basal corners. Flaking patterns are variable, but tend toward regular to mixed. Cross-sections are usually biconvex.

Defined by: W. Cladwell, O. Mallory (1967)

DEVELOPMENTAL TO HISTORIC

EARLY TO LATE RIVERINE PHASE HENDRICKS



Hendricks (3,500 - 1,500 B.P) is a medium size, corner notched dart. Blade region is triangular with straight, typically serrated margins, beveling has been shown in some examples. Shoulders are barbed and are typically sharp. Base is straight and expanding with light grinding reported in some examples. Flaking patterns are variable, but tend toward regular to mixed. Cross-sections are usually biconvex. This form is associated with the Willamette Valley and Portland Basin. This type is likely a proceeding type to the later, an much smaller Calapooya.

Type Site: Carlton, Oregon (Yamhill County) Named by: Ben Stermer for examples recovered on the "Hendricks Land Claim"

LATE RIVERINE PHASE TO HISTORIC KLICKITAT DAGGER



Klickitat Dagger (300 - 160 BP) is small well-made arrow point with a long, narrow blade and straight, convex or recurved blade margins. Short lateral tangs at the juncture of the blade and shoulder are common. Most examples exhibit a diamond-shaped stem. Notches are broad and shallow.

Also Referred to: Klickitat or Dagger Points, Locally Named by Regional Collectors

LATE RIVERINE PHASE TO HISTORIC **KLICKITAT DAGGER** VARIATIONS WITHIN THE TYPOLOGY



These variant forms are rare, often represented with protruding, opposing barbs and expanding curved blade

Emory Strong refers to the Klickitat as the famed "dagger points" found at the Five Mile Lock site (aka: Five Mile Rapids an area stretching from Celilo Village to The Dalles) and occasionally at other places.

"...found along the Columbia River in Washington and Oregon as far upstream a the John Day and Deschutes River." (Selected Preforms, Points and Knives, Perino).

Author Note: Examples have been recovered at the Fountain Bar site near Rock Creek, Roosevelt and Umatilla

EARLY TO LATE RIVERINE PHASE MERRYBELL



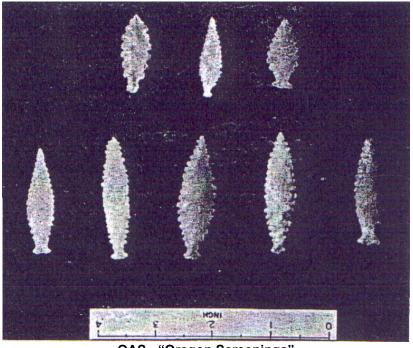
Merrybell (2,500 - 1,800 B.P) is a medium sized corner notched dart with straight to convex blade margins, broad bases are typically bulbous but can be straight, cross sections are lenticular, flaking tends to be random.

The Merrybell was first described in OAS Screenings Vol. 17, #7 by K. Matsen (1968). The Merrybell Farm, Type Site (35MU9), was excavated by OAS in 1967; the dig chair was Chuck Paynter. The site produced C14 dates of 850 ± 90 to 2,880 ± 155 BP. The projectile points were generally small dart points with medium to wide neck widths.



The Merrybell Phase of the Portland Basin (Lower Columbia River) is characterized by its broad-necked dart points, stemmed drills, flaked cylindrical bipoints, flaked crescents and perforated ground stone pendants. The Phase was dated to 2600 BP - 1800 BP. Other artifacts included burins, cores, celts, abrading stones, atlatl weights, netsinkers, hammerstones, pestles, anvils, antler wedges, antler flakers, ground and stone pendants.

LATE RIVERINE PHASE TO HISTORIC MCLEOD BANGLE



OAS - "Oregon Screenings"

"McLeod" Bangle (300 - 160 BP) is a small sized, well made and thin, side notched ornament (not arrow point) with a small "straight, convex or bulbous" base. Side notching occurs near the base. The edges are often finally serrated.

Reference Text:

The place and position in which these beautifully chipped pieces were found by McLeod indicate that they were used as "**Bangles**" and not arrow points. Close examination of the base shows that it would have been difficult if not impossible to haft them, but the basal form would serve perfectly for suspending from cord or thong.

- E. Strong (OAS Screenings, Vol. 6, #2, 1957)

Type Site: Atlatl Valley Site (45KL41 and 45KL37)

LATE RIVERINE PHASE TO HISTORIC MULE EAR (COLUMBIA RIVER)



Mule Ear (700 - 250 BP) is a small to large size triangular knife form, with straight to convex blade margins. Basal margin is concave to V-Shaped. Basal corners are pointed to rounded. Flaking patterns are variable, but tend toward regular. A cross-section is usually biconvex. Most examples are less than 4" long.

Seaman stated that this type was also referred to as a "Broad Horn" in the early days and

claimed it was most common around Washugal, Washington. Strong notes the distribution as Lower Columbia River up to the Cascades. The distribution has been found on the lower Snake River, as far up river as the Okanogan River Region of the Columbia River and along prehistoric trade routes into the Oregon Desert. Dr. Gregory Perino in, "Selected Preforms, Points and Knives," cites Osborne, Bryan and Crabtree (1961) for defining the name. Actually, Seaman described it in 1946, Strong in 1959.

These knives were hafted with a single ear imbedded in a bone handle and are referred to as a double pointed blade (OAS Screenings Vol. 15, #9, 1966), which explains why often one ear is longer. Charles Osborne writes, "I am prone to question the function of the larger barb...if it was a knife, it might have been a brace for the shaft. Lewis and Clark observed an Indian sharpening his knife. He used two bones lashed together like pincers and twisted the edge of the knife in the crease between the bones -- removing small chips." (OAS Screenings Vol. 4, #4, 1955)



LATE RIVERINE PHASE TO HISTORIC MULE EAR (COLUMBIA RIVER)



First Stage Exhausted Exhausted

NOTTOWAY



Nottoway (300 - 160 BP) is a small sized, narrow arrow point with tapered shoulders, a long stem section and an expanding base.

HISTORIC

LATE RIVERINE PHASE TO HISTORIC PLATEAU PENTAGONAL



Pentagonal (700 - 250 BP) is a small to large size, five-sided triangular knife with straight to convex blade margins. The basal margin is straight to slightly convex. Flaking patterns are variable, but tend toward regular. Cross-sections are usually biconvex.

Also Referred to: Wasco Knife

Described: H.Osborne, R. Crabtree, A. Bryan (1961 The Sheep Island Site and the Mid-Columbian Valley)

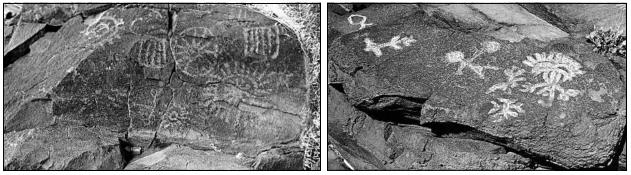
Type Sites: Sheep Island Site (Osborne, Crabtree, Bryan)

EARLY TO LATE RIVERINE PHASE PRIEST RAPIDS



Priest Rapids (3,000 - 1,750 B.P) is a medium sized dart that has a short, bifurcated stem, corner notching produces a sloping barb that turns inward. Reworked examples are such that the barbs are often completely removed.

The Priest Rapids region of the Columbia River is located in Grant County Washington. This section of the river was dammed in 1957 by the Priest Rapids dam; inundating the Whale Island archaeological site. The region was and still is home to the Plateau Indian group called the Wanapam.



Rock Art from Whale Island (Yakimamemory.org.)

EARLY RIVERINE PHASE QUILOMENE BAR



Quilomene Bar (3,000 - 2,000) is a medium to large sized dart with convex to straight blade margins that terminate in thick, squared barbs that extend down to the base of the expanding stem. Flaking patterns tend to be variable, although mixed and uniform flaking will occur. Cross-sections will tend to be regularly biconvex. This point is associated with the Quilomene Bar Phase of the Columbia Plateau. These have also been referred to as Braodheads.

Quilomene Bar is located at the mouth of Quilomene Creek on the Columbia River and forms a small area known as Quilomene Bay. The region consists of basaltic rock, and includes fractured and folded lava flows. Another well known nearby site is the Wiskey Dick Shellmound Site. Both sites are located upriver from the small town of Vantage in Kittitas County Washington.



Identified: C. Nelson (1969 Sunset Creek Site) Type Sites: Marmes Rockshelter - 45FR50 (Rice 1969, 1972); Sunset Creek Site - 45KT28 (Nelson 1969)

EARLY TO LATE RIVERINE PHASE RABBIT ISLAND, TYPE A



Rabbit Island, Type A (4,000 - 2,000 B.P) is a distinctive, nicely made, thin triangular dart form, with square shoulders and a well-defined straight to constracting stem. Biconvex cross-sections predominate. Serrated margins are common.

Temporal distribution overlaps Quilomene Bar.

The Rabbit Island Site (45BN15) was located slightly down stream from the mouth of the Snake River on the Columbia River in Benton County Washington. The island was unindated by the waters of Lake Wallula created after the completion of McNary Dam in 1956.

Identified: Daugherty (1959) and Crabtree (1957) Type Sites: Shalkop Site (Swanson, 1962) and Sunset Creek Site (Nelson, 1969) Altered Description: Swanson (1962)

EARLY TO LATE RIVERINE PHASE RABBIT ISLAND, TYPE B

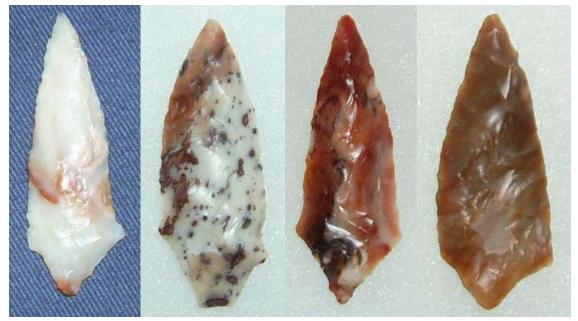


Rabbit Island, Type B (3,000 - 1,500 B.P) is a smaller and more delicate version of the Rabbit Island, Type A. Dr. Lohse notes this form consistently occurs in later cultural context than the Type A. It is a small triangular point with square shoulders, straight to slightly incurvate lateral blade margins, and a sharply contracting stem. Short lateral tangs at the juncture of the blade and shoulder are common. Blade margins are often serrated. Flaking patterns are irregular. Cross-sections are biconvex. (Lohse, E.S. 1984)



Identified: Lohse (1985) Type Sites: Shalkop Site (Swanson, 1962) Sunset Creek Site (Nelson, 1969) Wanapum Dam (Greengo, 1982)

EARLY TO LATE RIVERINE PHASE RABBIT ISLAND VARIATIONS WITHIN THE TYPOLOGY



Rabbit Island Unifaced Knife is a distinctive, small to medium sized diamond shaped blade with sharp shoulders and a short contracting base that comes to a point, lateral blade margins are recurved, convex or straight, cross section are plano-convex as this form is uniface. The reverse side exhibits only minor secondary pressure flaking along the blade margins.



Rabbit Island "Like Point," mentioned by Dr. Gregory Perino (Vol. 1)

This is an arrow point, which <u>may or may not be</u> a later period morphological variant of the Rabbit Island dart. This arrow style shares characteristics similar with the older Rabbit Island dart, but may be related to or a variant of the Columbia River Plateau.

DEVELOPMENTAL TO HISTORIC

LATE RIVERINE PHASE TO HISTORIC ROSE SPRINGS CORNER NOTCHED



Rose Springs Corner Notched (1,500 - 700 BP) is a narrow triangular, corner notched point, expanding base, sharp to rounded shoulder tangs. Associated with the Rosegate cluster of the Great Basin.

Described: Heizer and Baumhoff (1961)

Type Sites: Owens Valley, CA (Heizer and Hester 1978)



LATE RIVERINE PHASE TO HISTORIC

ROSE SPRINGS CORNER NOTCHED VARIATIONS WITHIN THE TYPOLOGY



Alkali Stemmed (1,500 - 500 B.P) is a small size point, with straight blade margins, square shoulder, long parallel sided stem that are straight to slightly curved, small triangular head, flaking tends towards random.

Named after Alkali Canyon in Utah and defined by James O'Connell. The Alkali Stemmed has been included as a variant of the Rose Springs Corner Notched (O'Connell 1971, Mack 1983). The Rose Springs Corner Notched, Rose Springs Split Stemmed and Rose Springs Side Notched have been identified as a morphological correlates of the Rosegate Cluster.

EARLY RIVERINE PHASE SHANIKO (STEMMED)



Shaniko (3,500 - 2,300 B.P) is a medium sized, weak shouldered lanceolate dart with sloping shoulders, stem sides are straight to slightly constricting and sometimes exhibit light grinding, base is typically convex, flaking tends to be random.

This lanceolate form was name after the town of Shaniko in Wasco County Oregon. Mr. Ray Snyder recovered several isolated finds near the town. After discussing with Jim Houge, the form was named Shaniko. The town is basically an old ghost town, originally settled in the 1860s. Today, the population is just over 20 people. Many of the original old building still stand.

Also Referred to: Early Stemmed



Shaniko Bank, Shaniko OR (Photo: Dolores Steele)

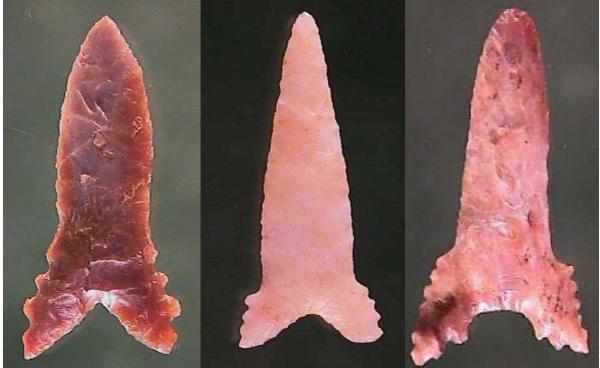
EARLY TO LATE RIVERINE PHASE SNAKE RIVER CORNER NOTCHED



Snake River Corner Notch (2,500 - 1000 B.P) is a small to medium size point, with straight to slightly convex lateral blade margins. Blade margins often are serrated. The basal margin is typically convex to auriculate. Flaking patterns are variable, but tend toward regular. Crosssections are usually biconvex.

Defined by: Layton (1970)

LATE RIVERINE PHASE STRONG BARBED

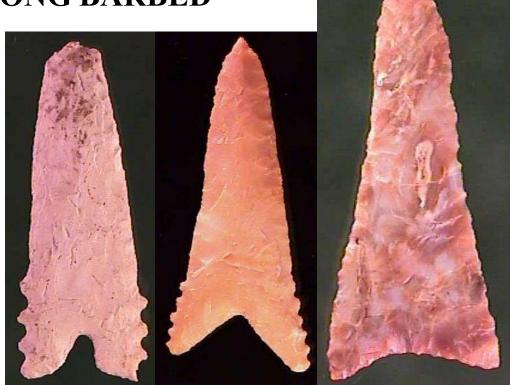


Strong Barbed (1,750 – 700 B.P) is a medium sized point with a deep concaved, notched to v-shaped base and an obtuse to apiculate tip. The basal ears are strongly serrated.

Emory Strong first described this point in "Stone Age on the Columbia River. He writes, "A special type with an expanding body and serrated tangs found on Sauvie Island and vicinity; only five are known as far as I can determine."

The example shown in Stone Age on the Columbia River was found at the Shoto Village/ Herzog site (CL-6) on Lake River, Clark Co. WA by Dennis Strong (Emory Strong's Son). Other examples have been recovered from the St. Johns site, Felida Moorage and sites on Sauvie Island. This typology appears to be localized to the Portland Basin. However, there was a similar styled point found on a Calapooya mound near McMinnville, OR (OAS Screenings, Vol. 15, #4, 1966). Chuck Paynter hints that these were possibly used to scale fish, or as an ornamental pendant tied with a thong around the serrations (OAS Screenings, Vol. 18, #9, 1969). These are not an old point with most examples recovered close to the surface; as such the temporal range provided above may be inaccurate.

LATE RIVERINE PHASE STRONG BARBED



Preform

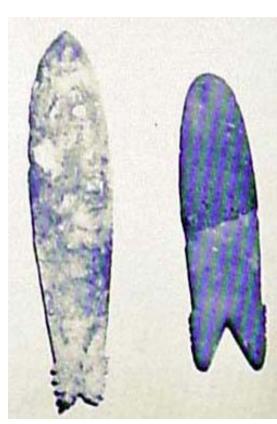
Gregory Perino writes, "Strong Point is named here for a type found and Reported by Dennis Strong (should read: found Dennis Strong and Reported by Emory Strong), at the Shoto Village Site on Lake River, the small stream outlet of Vancouver Lake in Washington."

Notes:

- Emory Strong reports only 5 known examples in 1959
- Gregory Perino reports only 10 known examples in 1991
- Jim Hogue reports 11 known examples in 2005
- Today, half the known examples reside with in a single private collection

LATE RIVERINE PHASE

STRONG KNIFE



OAS - "Oregon Screenings"

Strong Knife (1,750 – 700 B.P) Emory Strong only mentions one sentence about this knife form in "Stone Age on the Columbia River.

He writes in reference to the Strong Barbed, "Large Obsidian knives with the same type tang serrations have been found at the mouth of the John Day River."

The John Day River empties into the Columbia River in the Long Narrows. The site was a sand bar, often referred to as the John Day Bar (Sherman Co., Oregon). 14 miles up river was nearby Fountain Bar, Klickitat Co. Washington (45-KL-15)

Note: I have been unable to locate a "complete specimen" and must rely on the old B/W photo shown to the left. I would offer up that this is one of the rarest knife forms found on the Columbia River.



A basal section of a Strong Knife made from beautiful agate. From this section, we can estimate these knives were very large.

LATE RIVERINE PHASE to HISTORIC SUAVIE ISLAND BASAL NOTCHED



Sauvie Island Basal Notched (1,500 - 200 BP) A small to medium sized, triangular arrow point with sharp and often laterally expanding barbs, straight lateral margins, basally notched creating a short, straight to constricting stem, with weak or shallow, lower-to-medial side notching. Associated with the Pacific Coast and Lower Columbia River (to include the Portland Basin) and is part of the Riverine and Coastal Tradition.

It has been postulated that the Sauvie Island Basal Notched may be associated with a larger yet to be defined Coastal Tradition Cluster as this form shares traits common to Contra Costa Cluster of California.

Sauvie Island Basal Notched was so named for examples found on the Island by local area collectors. The Umpqua-Eden Site, professionally investigated and documented, also produced examples; as well as the Duck Lake Site excavated by OAS.

Type Site: (35-DO-83, Ross and Snyder; 1979 and Lyman; 1981) (45-CL-6, Duck Lake Site, OAS)



LATE RIVERINE PHASE to HISTORIC SUAVIE ISLAND BASAL NOTCHED

VARIATIONS WITHIN THE TYPOLOGY





There are distinct similarities between the Sauvie Island Basal Notched and the Contra Costa described by Noel Justice. However, it is important to note that the Sauvie Island Basal Notched is a small point.

There have been some discussions that indicate the large, well made Contra Costa examples may have been used as a handheld thrusting weapon (Smithsonian series "Handbook Of The North American Indians # 8," Chapter on "InterGroup Conflict" written by Thomas McCorkle).

LATE RIVERINE PHASE SAUVIE ISLAND SHOULDER NOTCHED



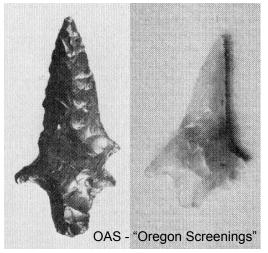
Sauvie Island Shoulder Notched (1,750 - 400 BP) is a thin, small size, stemmed point with a single shoulder or both shoulders notched. Shoulders can be tapered, rounded or sharp, base is straight to convex, stems are short and are rectangular to tapered.

Named: Jim Houge

Type Sites: Portland Basin region, but have been reported up river as far as Yeager Island.



EARLY RIVERINE PHASE SAUVIE ISLAND SHOULDER NOTCHED VARIATIONS WITHIN THE TYPOLOGY



This variant form was found a Fountain Bar and was described in OAS Screenings (Nov, 1970). It has been reported by a contributor to this work that this variant form has been found at Fountain Bar, sites near Alder Creek and the mouth of the Umatilla River. This variant form is made from the Rabbit Island Type B.

Reported: Chuck Paynter OAS 1970

The Sauvie Island shoulder Notched is a fairly new type assignment and little is written about it. This typology appears to be made from several established point typologies, which include the Wallula, Columbia Plateau, Rabbit Island Type B and Quilomene Bar. The differentiating characteristic is the single and sometimes double barb notching. As such, the argument could be made that this form is a variant of the established forms and **Columbia River Shoulder Notched** might be a more appropriate name.



Columbia Plateau

Quilomene Bar

Triangular

LATE RIVERINE PHASE TROJAN



Type Site

Trojan (1,320 - 300 BP) is a thin, small size, triangular to ovate projectile which most agree was used to tip a bone harpoon or similar type head.

Named: OAS Members

Type Sites: Trojan Site, near St. Helens, Oregon (Reported as 35-CO-10 early on 1968-69 and revised to site 35-CO-1 by 1970)

D. Humphreys (OAS Member) writes, "... in three years, could only be a wild guess. Points so crudely worked, with curves and bends, one would swear they were meant for shooting around corners." (OAS Screenings, Jan. 1971)

Typically items recovered at this site included points, knives, beads, drills, sinkers, pumice paint pots, cobble choppers, scrapers and utilitarian stone tools. Also noted was a few rare ceramic fragments which differed in style to that found across the river at sites along the Lake River.

LATE RIVERINE PHASE to HISTORIC VENDETTA



Vendetta (1,750 - 200 BP) is a small to medium sized triangular arrow, provided with a second set of deep notches that create a unique double barbed projectile, this is characteristic hallmark for this point type. It is believed Del Greer named this point type and was included in the Overstreet Guide by Jim Hogue.

I found documented reference to this style of point in the Wishram Ethnography Report (Leslie Spier and Edward Sapir, 1930). In the report, they describe a type of "War Arrow" that employed a multiple barded point, which was composed of two or four barded flint heads, each one set into the barb of the proceeding.

The Spier and Sapir theorize the point was so deeply notched that it was intended to snap-off. They state that arrows employing this point type were used in war and never for game. The arrowhead was likely smeared with rattlesnake venom or a similar natural poison.

The examples I am aware of were collected on the Lower Columbia River (Portland Basin), but may also be found up river along the Dalles region based on the Spier and Sapir report.

Note: This point style is also described in North American Bows (Otis Mason, 1908)

LATE RIVERINE PHASE to HISTORIC VENDETTA



EARLY RIVERINE PHASE to HISTORIC WAHMUZA



Wahmuza (4,000 - 200 BP) is a medium sized lanceolate with a recurved edge and a long straight-sided, tapered base that is ground. The basal edge is short and straight to rounded.

Notes: "...The Wahmuza Lancelote spear point, has a unique form. Not only are they found in contact era sites, but they are confined to the last 4000 years within the Northern Shoshone region. (*Owyhee Uplands of southeastern Oregon*)"

Notes: "...Wahmuza Lanceolate dating from 4000 years ago to the historic period. Research indicates that it probably tipped thrusting spears used for finishing off a wounded animal; and it was most likely made by ancestral Shoshone." (*Obsidian, Hydration Analysis - INEE*)

"...This is a Late Prehistoric/Early Historic point that has all the characteristics of some Paleo points. They have parallel Oblique flaking, are lanceolate in shape and have ground stem edges as on morphologically similar early points." (*Selected Preforms, Points and Knives, Perino*) As it turns out, these have been dated to 4,000 years.

Association: Eastern Snake River Plain

Type Site: Wahmuza Site, ID (Holmer, 1986)

LATE RIVERINE PHASE to HISTORIC WALLUA - RECTANGULAR STEMMED



Wallula - Rectangular Stemmed (1,000 - 200 BP) is a small, delicate triangular forms with essentially straight blade margins, wide and low corner notches, long and straight parallel stem terminating in straight base. Flaking patterns are variable, cross-sections tend to be biconvex.

Wallula Rectangular Stemmed are diagnostic Late Prehistoric period arrow points of the Lower Snake River region of Washington and Columbia River. Straight parallel stemmed examples are found in the Portland Basin region of the Columbia River, but most tend towards the Narrow-Neck variant.

Also Referred to: Wallula Gap

Described: H.Osborne, R. Crabtree, A. Bryan (1952) Defined: J. Shiner

Type Sites: Sunset Creek Site - 45KT28 (Nelson 1969); Wanapum Dam (Greengo 1982)

LATE RIVERINE PHASE WALLULA variations within the typology



Represent above are some of the typical variation often encountered with the Wallula. These examples are found on the lower sections of the Columbia River and are typical of the stemmed arrow points found with in the Portland Basin. They are a small sized, thin constricting stemmed arrow point with squared to slightly barbed shoulders, lateral blade margin tend to be straight and often serrated.

"... These may have been referred to as Rabbit Island Stemmed in a later report. This point is a







variation of the Columbia Plateau Basal Notched, having a narrower blade and less prominent barbs." (*Selected Preforms, Points and Knives, Perino*)

> Lower Columbia River Wallula Rectangular Stemmed

BONE AND ANTLER TOOL TECHNOLOGY

Native peoples of the Columbia River have traditionally relied on bone and antler as raw materials for creating a wide variety of subsistence equipment and personal adornment.

AWLS AND NEEDLES

Awls were used in preparing skins for sewing and in crafting coil baskets to name only a few functions.

Needles and sinews were used to sew clothing articles and were of various sizes depending on the task at hand. The common sewing needle was three to eight inches long, provided with a long, sharp point and may be curved. Larger, often crude, needles were used for the sewing rough materials such as reed mats or similar use items.





AWL



NEEDLE - NOTE THE EYE

BONE AND ANTLER TOOL TECHNOLOGY

WEDGES

Large bone and antler wedges were used to split wood. An example was in crafting cedar planks, bone or antler wedges would be driven into the wood, causing a split in the grain that was worked along the length of the plank to free it from the rest of the tree. The nature of the cedar tree helped, as it is quite easily split and the grain runs so straight that the removed planks generally required little or no working to be ready for whatever project they were destined for. Often the pommel end of the wedge was tightly bound in cordage to prevent splitting when struck with a hand maul or hammer stone.





This stone tool is referred to as a Hand Maul and was one of the traditional tools used to strike and drive the wedge into the wood.

BONE AND ANTLER TOOL TECHNOLOGY

BONE POINTS, ATLATL SPURS

Bone and antler points were used to tip Atlatl darts, used in fish spears and related hafted weapons used in subsistence living. They could be directly hafted or socketed in detachable shafts. An Atlatl Spur is the part of the Atlatl that engages the dart and pushes the dart forward.



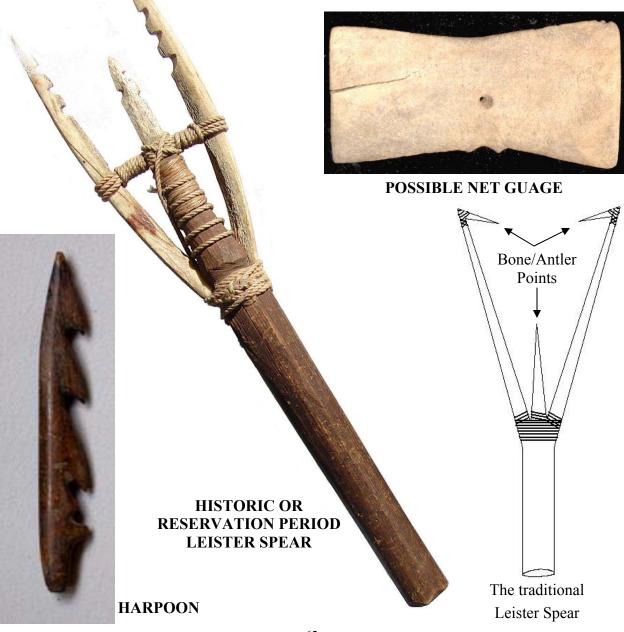
CLOSE-UP VIEW OF BONE POINTS

BONE AND ANTLER TOOL TECHNOLOGY

LEISTER (SPEAR), LEISTER PARTS, HARPOONS

A variety of fishing technologies, such as nets, dip nets, fish traps, weirs and spears tipped with Leister or harpoon heads were used on the Columbia River. What might be considered the least effect of technologies was the Fish Spear.

Fish spears were generally the two or three pronged variety. Long divergent prongs were lashed with sinews or twine (sometimes pitch) to the end of a pole to craft the spear. The three pronged variety is known as a Leister Spear.



BONE AND ANTLER TOOL TECHNOLOGY

PRESSURE FLAKERS

In order to make a stone tool such as a knife, scraper or projectile the pressure flaker was used. In Lithic reduction, pressure flaking is a method of trimming the edge of a stone tool by removing small Lithic flakes by pressing on the stone with a sharp instrument rather than striking it with a percussive tool such as a hammer stone. This method typically relied on the use of punches made from bone or antler tines. The tip of the pressure flaker was placed against the edge of the stone tool and pressed hard, removing a flake from the opposite side.

The use of pressure flaking facilitated the early production of sharper and more finely-detailed tools. Pressure flaking also gave Native Peoples the ability to create notches where the object could be bound more securely to the shaft of the weapon or tool and increasing the objects utility (Andrefsky, W, 2005).



BONE AND ANTLER TOOL TECHNOLOGY

HANDLES

One common use of bone and antler was for handles. Knifes, adzes and root diggers, to name a few tools, were often hafted or socketed with bone and antler handledfor better handling of the tool.



ROOT DIGGER HANDLE

SOCKETED KNIFE HANDLE



PERSONAL ADORNMENT

Bone and antler was also used by the Columbia River peoples to craft great works of art. Items, such as beads and pendants were manufactured, strung with a rolled sinews and worn. Often these items would be incised with geometric designs and lines.







BONE AND ANTLER TOOL TECHNOLOGY

OTHER BONE AND ANTLER ITEMS



BONE GAMING DICE

"The dice game was feminine; men never played it. The bone dice were four in number. Two called "men" had a line of crosses along the face, two called "women" had two longitudinal lines of dots, crossing which were traverse lines. These were thrown from the hands. If two of a kind fell face up, the thrower won a point; with any other throw the dice passed to an opponent.

The examples shown would be "Women." One is in the form of a pendant as noted by the perforated hole.





SPOON

Note: Anthropomorphic carved art from the Columbia River is often represented by employing circles around the eyes and gapping mouths as shown with the Bone Pin and She Who Watches.



SHE WHO WATCHES

PIN

BONE AND ANTLER TOOL TECHNOLOGY

WHALE BONE CLUBS



Shown above are two complete examples of a Whale Bone Club. The top example measures 21" long. Whale Bone Clubs were fashioned in a variety of shapes, designs and weights. The density made them lethal hand-held weapons. They may also represent status within the village. It is probable that these clubs were traded down from the Northwest Coast.

WOOD TECHNOLOGY

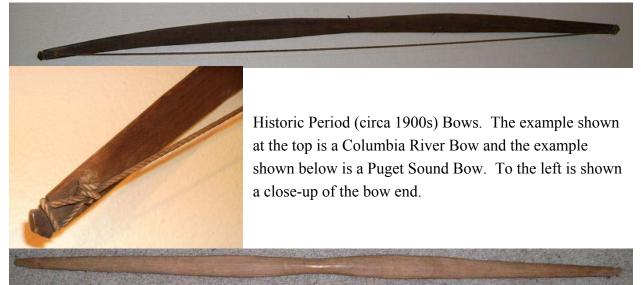




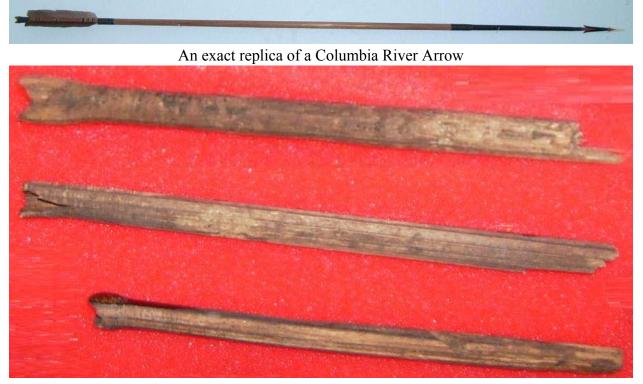
A rare piece of carved wood recovered from the Portland Basin region of the Columbia River. Perishable wood items such as this were seldom recovered.

WOOD TECHNOLOGY

BOWS



ARROWS AND ARROW PARTS



Columbia River arrow fragments



WOOD TECHNOLOGY

Wooden Wedge

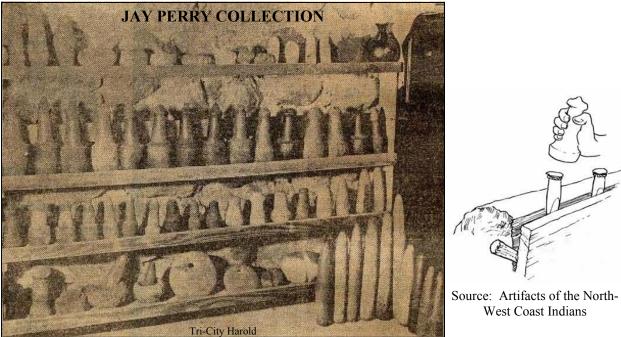




This is a very rare wooden wedge recovered pre-1950s from what is now known as the Sunken Village Site 35-MU-4.

This wedge is manufactured from the hard root of a Hemlock. Note the rough Willow withes cordage that has been wrapped round the pommel end of the wedge. The pommel end is fragmented and similar in texture to that of a cropped wisk-broom. This is due to repeated striking with a hand maul.

HAND MAULS



Hand mauls have been found in various forms and shapes and were made by using a pecking and grinding technique, which required patience and persistence. Once the rough form was completed, the toolmaker used an abrader made from a gritty stone. The abrader allowed the toolmaker to grind smooth the maul surface. It is likely a hide, sand and oil treatment was used to polish the finished product.

The hand maul was used to drive wedges and with other related woodworking activities. One could considered them equivalent to a hammer or mallet. Artistic features such as Zoomorphic, Anthropomorphic and Nipple Top are common with these hand mauls.



HAND MAULS



Ernie Cowles Collection

Well-formed hand mauls showed up about 2,500 years ago. They were used to drive wood and antler wedges in splitting cedar planks and in the manufacture of dug-out canoes (to name a few tasks.



Emory Strong Collection

PESTLES

Pestles were used with stone and wooden mortars for grinding and hammering as a means to pulverize dry food items such as fish, berries and roots. Preserved food items were hard and therefore would have required the use of this tool. However, many Stone Pestles have been found that show extreme use damage. It is a reasonable assumption that this tool was used for multiple purposes beyond just food preparation.



SALMON PACKERS



These long pestles from the Columbia River are commonly referred to as "Salmon Packers" by collectors. It is believed the name was derived based on the Lewis and Clark descriptions of the salmon meal storage baskets used by native peoples near the Dalles. The storage baskets were deep and early collectors surmised it would require long pestles such as these to pack the meal. This author has seen a historic photo showing a Native woman using one of these salmon packers with a deep wooden mortar suggesting these tools were used with deep mortars.

The ringed packers are typical of examples found in Northern California. They have been found in limited numbers along the Columbia River and connecting drainages.

SALMON PACKERS



STONE CLUBS



Every fisherman on the Columbia River would have had a club with which to kill the salmon as soon as it was taken. Most clubs used for this purpose would have been made of wood. It is believed these stone clubs, although rare, were used for a similar purpose and could have also served as a pestle in some instances. These lack the stylized carvings or artwork that was common with more highly prized stone tools. Still, considerable time and effort was spent to craft these stone clubs.

These clubs were typically crafted from a sliver of Basalt or long river cobble. The same pecking and grinding technique would have been used to refine the tool into its finished form. Note



STONE PADDLE SHAPED CLUBS



These Paddle Shaped Clubs are similar in shape and may be closely related to the Whale Bone Club. One must assume these clubs were an important badge of rank or prowess. "...The majority of clubs found are slate blades of twelve to sixteen inches long, double edged, and with a hole for suspension thong. They would have made fairly efficient weapons in battle, although easily broken, and that is what they were used for..." (E. Strong - Stone Age on the Columbia River)

It is interesting to note that similar shaped clubs have been reported from the South Pacific and in particular New Zealand.

STONE PADDLE SHAPED CLUBS

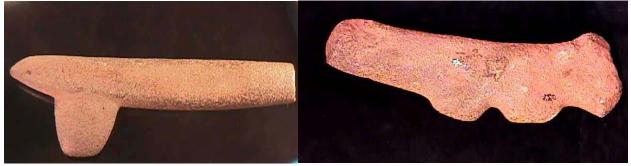


Shown above are several variation of the Stone Paddle Club found on the Columbia River.



Paddle Club made of slate, hole is damaged where it would have been suspended by a thong.

SLAVE KILLERS



The Slave Killer style of club is quite rare, but have been found all along the Pacific Coast from Alaska to California. Documented finds along the Columbia River have been reported from the mouth of the Columbia River to Columbia Point in Richland Washington. Reported lengths range from 4" to over 20" and typically have one or two protruding blades.

It is not certain what the precise usage was, but the term "Slave Killer" was used since the 18th Century to describe a club of similar configuration which was used by chiefs of certain Pacific Northwest Coast tribes to allegedly kill a slave at a ceremony, as a demonstration of power and extravagance. Slavery occurred among some Northwest Coast tribes and the slaves were usually prisoners from enemy tribes or their descendants. "A chief might show his contempt for the wealth and property by casually slaying one of his slaves with a special club called slave-killer." (*American Indian Trickster Tales*, Richard Erdoes and Alphonso Ortiz).

It is open to debate weather these clubs were actually used in the manner their name implies. This author believes these clubs were likely a status symbol. Some examples were just to small, as a hand-held club, to have been effective for dispatching a slave or enemy.



SLAVE KILLERS



STONE MONOLITHIC ADZ / CELT



Stone Adz Handle

Monolithic Adz or Celt are a wood working tool of considerable antiquity, perhaps 3,000 to 6,000 B.P. This kind of celt is about the size and shape of a pestle, beveled on one end into a kind of chisel bit, and pecked into a hammer shape on the other end. In the middle, at about the center of gravity, is often found a concave or simply polished area on one or both flat sides. Many specimens were intentionally broken in the middle. (OAS Screenings, May 1974, Dr. Richard Pettigrew)



JADE ADZ BLADE



The first stone adze blades did not appear in the archaeological record until about 3,500 years ago. These tended to be small at first, but slowly increased in size and diversity through time. Most are made of hard nephrite or Fraser River jade.

The adz blade was used as a bit for a woodworking tool know as an Adz. There are several Adz forms, the "Straight Adze," which consisted of an adz blade socketed in a bone, antler or wooden handle; the "Elbow Adz" and "D-Adz" were among the more common adz forms.



D-Adz

Major sources of nephrite jade were found on the Fraser River and in the interior of northern British Columbia. Jade slabs were cut by using a strip of hide (thong) or cordage, fine grain sand and water. The thong was drawn back and forth using the sand as an abrasive and the water to lubricate. Jade is a hard stone and it likely took great deal of time to cut a slab. Most examples exhibit a high polish.



This specimen clearly shows the cut marks and the break line where it had been removed from the host rock.

JADE ADZ BLADE



Large Adz Blade

NET WEIGHTS



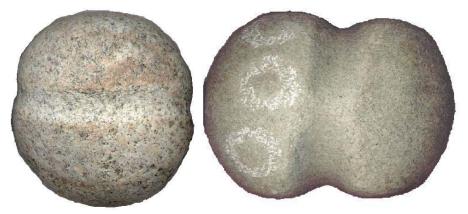
Perforated Net Weights

Typically made from basalt or even scoriaceous lava material, roughly an oblong spheroid, the hole is typically started on both sides, used for as weights for fishing nets.



Double Notched and Four Notched Net Weights

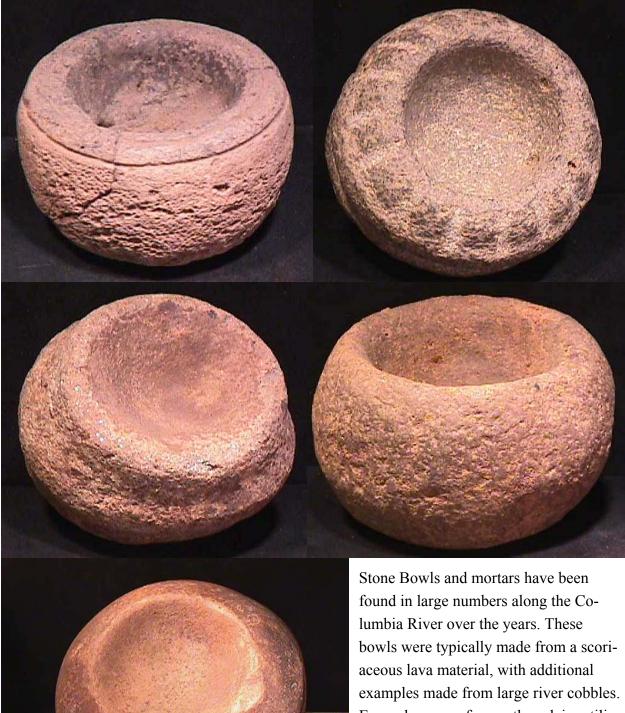
Flat, comparatively thin, roughly elliptical, river cobbles of various size that are typically found with one, two or four notches.



Banded Net Weights

Globular or oblong spheroid river cobbles girdled longitudinally or transversally by a pecked groove. Thought to have been net weights and even reported as line weights for large game fish such as the Sturgeon.

STONE BOWLS



Examples made from large river cobbles Examples range from rather plain, utilitarian in nature to highly decorated works that exhibit traditional Columbia River art.

STONE BOWLS





The process for crafting these bowls and mortars must surely have been a time consuming endeavor. The bowl blank was place on a sand bed to absorb and prevent cracking while being crafted. A hammer stone, a sharp granite fragment end and a constant pecking process were employed to rough out and form the bowl's hollow. Once the hollow had been completed, the exterior to the bowl was dressed to the desired shape in a similar manner of reduction. Large deep bowls (some over 24" deep) are believed, in some instances, to have been used for cooking purposes and as stone mortars in other instances.

It is important to note that wooden bowls (made from hardwood roots) were most often used, but as a perishable item, very few examples remain today.

Stone Bowls have been found in large numbers along the Columbia River from Kalama up river as far as Umatilla.

STONE PAINT POTS



STONE PAINT POTS



This nice paint pot example was found at Wakemap Mound (Washington State) in 1954. The Wakemap Mound excavations were hurried in an effort to recover and learn as much as was possible about the site before it was eventually flooded due to the Dalles Dam.

Note the inverted Tee-Pee design on the body and the 3 grooved lines along the pot rim.



STONE PAINT POTS



Zoomorphic pot found by Emory Strong near Wakemap Mound. Made from Granite and thought to represent a frog or turtle. (Collection resides in Columbia Gorge Interpretive Center Museum)



Zoomorphic pot found by Emory Strong, made from Granite.

STONE PAINT POTS



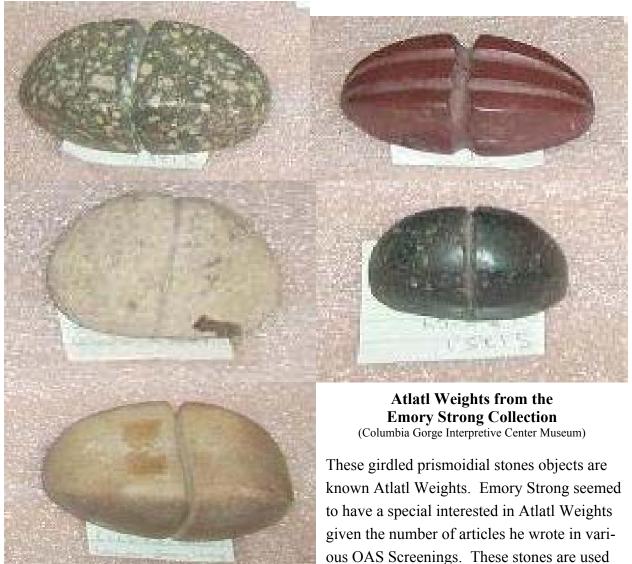
A fantastic face-motif paint pot made from a large Granite River Cobble.

STONE PAINT POTS



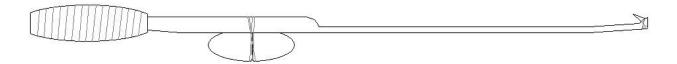
Zoomorphic Turtle paint pot. The circled eye feature is characteristic of stone art found near the Dalles and mouth of the Deschutes River. This paint pot represents the highly artistic works of art found along the Columbia River.

ATLATL WEIGHTS



Thrower. Strong states, "...of the 120 or so weights found, 80% were found in pairs, and in one case four and in another three were found together; ...Typical weight is 1.5 to 10 Oz, with most examples averaging around 6 or 7 Oz; ...About one-third of the examples are badly battered on the base. Close examination shows that this is not the result of poor finishing, but occurred in service." (OAS Screenings, April 14, 1958).

as a counter weight with the Atlatl Spear









Bola Stones - Uncertain identity regarding use, but many theorize they were used as a Bola. Bolas are a throwing device made of weights on the ends of interconnected cords, designed to capture animals by entangling their appendages (legs, wings).

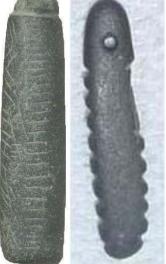
These stones are various sizes and shapes but tending to oval, lenticular, or round, grooved lengthwise and around the stone.

Grooved stones, sometimes called "bola" stones, are also associated with Windust (11,000 – 7000 BC) and Cascade (7000 – 4500 BC) phase components (Leonhardy and D. Rice 1970; Bense 1972) and contemporaneous manifestations (e.g. Five Mile Rapids [Cressman et al. 1960). Their function is presently unknown, although they may have been net weights (e.g. Hess 1997) or tong-tied throwing weapons known as Bolas.



STONE ORNAMENTS





These are small pendants often provided with perforations for suspension from a cord . Some are small enough that they may have been true wrist or ankle bangles. The materials used for this type of art are typically steatite, basalt and slate. Often these items will have tally marks and other forms of incising.

The two larger examples shown center left may be a stone gorget type of perforated pendant. Although very rare, stone Gorgets have been recovered at McNary Dam, Indian Wells Site and the Congdon Site.

STONE ART



Displayed in the Favell Museum - Stylize Beaver. Note the sun burst design



Cowles collection Stone Head made from scoriaceous lava material.

STONE ART



Lee Moorehouse Collection Courtesy of OSU 95

LAKE RIVER CERAMICS

Lake River Ceramics, also known as Shoto Clay or Shoto Ceramics, refers to clay artifacts; both fired and unfired, found mainly along Lake River in Clark County, Washington. Lake River is an approximately 10-mile long, typically slow-moving waterway that runs parallel to the Columbia River from Vancouver Lake to the south, to the northern tip of Bachelor Island to the north and empties into the Columbia River. Portions of the Ridgefield National Wildlife Refuge border the length of the river. Throughout history Lake River has had many names, including "Calapuya Creek" (1841, Charles Wilkes), "Calipaya Inlet", "Vancouver Slough" (1854 cadastral survey), and "Lake River" (1888 U.S. Coast and Geodetic Survey Chart No.6).

Manufacture

The clay that was used to craft these artifacts is commonly referred to as "Lake River Clay." This clay has a distinctive tan-orange ting to it when fired. Fired examples often exhibit small gold and sometimes silver colored flakes (a mica) that may be a temper added to strengthen the piece. The firing technology appears to have been performed at relatively low temperature. The likely method of firing was over a camp fire. A common camp fire can reach temperature up to

approximately 800°C. Reports of kilns at the Cathlapotle site, which is also located on Lake River, were likely used for Camas and Wapato production and are similar to those found throughout the Portland Basin and not believed to have been used for ceramics production.

These artifacts, sometimes call an amulet, are small, typically 1 to 3" in length and are typically very simplistic in there crafting. Typical forms include:

- Unidentifiable globs that look as if they were made by rolling the clay between the palms of the hands or kneaded into odd shapes with the fingers.
- Human (Anthropomorphic) effigies, which tend to be more wellmade (*collectors have referred to them as "Faces" and "Cigar Shape"*).
- Small tablets; kite or wedge shaped, with intricate designs of lines and indentations. These tablets were typically found broken (*collectors have referred to them as "Palettes"*).
- Beads, Pipe Parts and Small Bowl Shards



LAKE RIVER CERAMICS Stylized flathead and protruding ribs characteristic of Columbia River Art. Clark Co. Museum

LAKE RIVER CERAMICS

Typical designs worked into the artifacts include the following:

- Dots
- Lines
- Curves/Wavy lines
- Fingernail impressions
- X and V patterns

Finishes included the following:

- Red Ochre and possible Black Pigment
- Small Pieces of Shell Inlay

Site Specific Data

At this time, the majority of physical data is related to the excavations conducted at the Herzog Site (45-CL-4), also referred to as the Shoto Village Site. The site had be-



LAKE RIVER CERAMICS Stylized baby (Papoose) Clark Co. Museum

tween 1" to 2.5' of overburden that had to be removed to get to the occupation layers. Over the course of three years (1964-66) the site was excavated by OAS. It was reported that the site occupation levels were between 6" and up to 6' near the river's edge. 164 articles of clay were ultimately collected and recorded. These articles were recovered at depths < 1' to 4'. An over-whelming number of clay articles were recovered in the top layers between the depths < 1' and 2'. Only a few articles were recovered between 3' and 4' levels. It is important to note that the occupation level extended further, but could not be investigated due to the high water table which was reached at a depth of 8'. At the Cathlapotle Site (45-CL-1), Lake River Clay artifacts were also recovered is unknown to this author, but one would assume the levels would be similar to those found at the Herzog Site.

Temporal Dates

Carbon 14 dating is problematic due to contamination. "No C-14 dates could be obtained because of contamination from Hanford, but judging by other sites nearby, this one is not more than about 1,000 years old. Since few trade goods were found, the town was probably abandoned during the Great Pestilence of 1830-1835 -- perhaps even earlier, for no other journals mention the site (E. Strong, The Ore Bin; 1973)." For more than 40 years, the U.S. government produced plutonium for nuclear weapons at the Hanford Site in south central Washington State. During that time, Hanford released radioactive elements and other materials into the Columbia River that can be traced all the way to the Pacific Ocean.

LAKE RIVER CERAMICS

According to the Technical Steering Panel of the Hanford Environmental Dose Reconstruction Project, there were five radio-nuclides contributed the most to the river pathway. The five radio-nuclides were phosphorus-32, zinc-65, arsenic-76, neptunium-239 and sodium-24 (all radioactive). This contamination can provide false results for several of the established dating methods. It is important to note that this form of site contamination would result in dates that are too young, by as much as a few hundred to many thousands of years (since the effect of the contamination would be to increase the level of radioactivity being measured).

Thermoluminescence (TL) was selected for establishing dates associated with Lake River Ceramics. "TL is a method for dating the firing of pottery samples in which the amount of thermoluminescence from a heated sample is used to determine the number of trapped electrons (also referred to as traps or clocks) resulting from absorption of alpha radiation. This technique has been developed so that it seems to be possible to date fragments of pottery absolutely to within 10 percent. (M. J. AITKEN)." Test results placed a time marker of 800 years for these unique artifacts (around 1210 to 1330 AD). This is an interesting date because this author has been told by individuals who, back in the 1950s and 1960s, were familiar with the Lake River area and they report that often these small ceramics were recovered near the surface of Lake River sites. The Lake River is an area that has experienced periodic flooding and resulting silt deposits were left behind with each flood. As such, this 800 year old date seems to conflict with eye witness' first hand experiences and the Herzog Site excavations, which suggest an association with more recent site occupation. This author can not help but wonder what dates would be obtained using the Optically Stimulated Luminescence (OSL) dating method, which uses laser light. "OSL is considered more reliable than TL in two respects: "OSL is superior to TL because it is possible to date a single grain of sand at a time. The advantage of this is that scientists can remove contamination from very old grains which have ended up next to the artifact. OSL's other advantage is that it requires less exposure to the heat to reset the electrons (traps or clocks) in the crystal. This decreases the chance of misleadingly OLD RESULTS."

This 800 year old date is even more problematic in my view after having personally reviewed and examined an Anthropomorphic Lake River Ceramic that is a contradiction in a very significant way. The example, which is referred to as a Face, has two perforated holes in association with the ears (this is rare enough for Lake River Ceramics). However, what is remarkable about this particular Lake River Ceramic is that it is BEARDED. There is no mistaking the bearded face on this rare specimen. It also does not feature the flattened head commonly seen with Lake River Faces.

LAKE RIVER CERAMICS

According to Captain Robert Bishop in 1796, the Chinook were noted to have plucked-out their beards. Robert Stuart of the Astorians wrote, "They have scarce any beard, and it is seldom the smallest hair is to be discerned on their faces; from the care they take to pluck out the little that appears, they esteem it very uncooth and impolite to have a beard, calling the whites by way of reproach the long beards." In fact it would appear the only time a Chinook would actually allow a beard was during a time of great mourning as was reported with Chief Comcomly after his son's death. So, why would the maker represent a stylized beard on a Lake River Ceramic Face when the beard was considered to be uncouth and impolite?

I personally believe this lone example of a bearded face is important to the story of the Lake River Ceramic Horizon and it has been reported that it was not reviewed by Stenger or Steele when they prepared their Report titled, "The Lake River Ceramic Horizon: Locally Fired Clays in Prehistoric Washington State." Their work was limited to the collection housed at the Clark County Historical Museum and a single private collection.



Ceramics Technology

Dr. Alison Stenger of the U.S. Institute for

Archeological Studies, found Lake River Ceramics most closely resembled ceramics produced in Japan, on Alaska's Bering Sea coast, on the Russian Pacific coast, and in Korea. The ceramics appear to have been produced locally, and the archeology of the Lake River area shows no evidence of ceramics technology evolving over time. The potters seem to simply arrive, and after a few generations, they're just not there anymore. "The critical issue about the ceramics is that we do not know who made them, but whoever it was, it wasn't the more recent inhabitants (Chinookan Peoples) of the area," said Alison Stenger. "It's definitely a mystery," said archaeologist Harvey Steele of the Northwest Pottery Research Center in Wilsonville, Ore. "There are no easy answers on this mystery."

LAKE RIVER CERAMICS

Use

One of Stenger's theories is that the amulets may have been related to marriage, with half an amulet staying in the husband's village and half going to the bride's. This is a really interesting theory. The tablets, often kite shaped, appear to be stylized representation of an empty or some-times occupied papoose/cradle; many of the anthropomorphic examples exhibit human reproductive organs. Could Lake River Ceramics be charms associated with marriage or even reproduction? It is likely they represented charms for a range of beliefs.



LAKE RIVER CERAMICS - FACES Note the flattened foreheads (A Chinook Indian Characteristic)



LAKE RIVER CERAMICS - PALETTES (KITES) Stylized baby (Papoose)

LAKE RIVER CERAMICS



LAKE RIVER CERAMICS - PENDANTS AND BEADS



LAKE RIVER CERAMICS - CIGARS Note the flattened foreheads (A Chinook Indian Characteristic)



LAKE RIVER CERAMICS - POTS

LAKE RIVER CERAMICS



LAKE RIVER CERAMICS - POTS AND TUBE PIPE

Additional Sites Where Lake River Ceramics Have Been Reported

Lake River Ceramics have been recovered from sites all along Lake River. Sites include:

- Herzog (45-CL-4)
- Cathlapotle (45-CL-1)
- Felida Moorage
- Duck Lake

A few isolated ceramic finds have even been recovered from nearby sites at Sauvie Island, the Meire Site, St. Johns and Trojan Site. The material is made from a different clay and most collectors would not consider them Lake River Ceramics. However, when taken as a region, these ceramics and those from the Lake River may represent a possible pottery tradition within the Portland Basin.

The only significant reports issued on Lake River Ceramics have been:

- "Shoto Clay Figurines and Forms from the Columbia River" written by R. Slocum and K. Matsen and published by the Oregon Archaeological Society, Publication No. 4 in 1968.
- "The Lake River Ceramic Horizon: Locally Fired Clays in Prehistoric Washington State" written by Dr. Alison Stenger.

COLUMBIA RIVER PIPES AUTHOR: TONY HARDIE



Large collection of Columbia River pipes - Many of these pipes have been published in OAS Screenings and other books on Columbia River Artifacts. Most remain in a Private Oregon Collection.

The Native Americans had various smoking customs that varied between tribes. They smoked many different plants, some of which included Tobacco, Willow bark and Kinnikinnick (Bearbush). These various materials were often mixed together as well. Tobacco (Nicotiana quadrivalvis) was the only domestic plant cultivated by the western Natives. They planted it in beds of ashes where a log or stump had once been burned. Since much of the smoking was done ceremonially, the pipe was a favorite artifact for extensive decoration and many examples exhibit spectacular quality.



One of the best pipe examples ever found was from the Vantage area is known as the "Bird Foot Pipe" - It is a little over seven inches long. The mouthpiece is in the form of the feet and tail of a bird. This piece was part of the famous Ernie Cowles Collection.

Pipes were manufactured from many different materials including stone, bone, and wood and sometimes even with clay. Most remaining preserved examples are made of stone, as wood, bone and clay typically decomposed over time. Metal, lead, pewter and copper were often used in pipe manufacture during the fur trade era.

COLUMBIA RIVER PIPES

The Columbia River pipe is a product of countless hours of highly skilled work using the tools of the day. These works of art were greatly prized by the Natives that made and used them during those prehistoric times. The origin of the custom of smoking has been lost in antiquity, but archeological evidence in the Northwest and along the Columbia River shows the custom has existed for more than 3000 years.

Pipes have been found throughout North America in a variety of shapes and sizes and the earliest and most unusual is the Tube Pipe style. Columbia River Pipe examples have been found ranging from a half an inch to over ten inches long and the two main types are the Tube and the Elbow styles; although there have been some unique styles found in this region. One example of this is the Fishtail type that was described and illustrated by the late collector Ernie Cowles of Grandview, Washington in Screenings, May 1956. This pipe has the bowl and stem joined at forty-five degrees and has a fishtail shaped handle under the bowl. This type and several similar variants were found in the area between McNary and Roosevelt and were determined to come from pre-contact sites, as none have been found in association with trade goods.



Above Left: Oldest pipes found on the Columbia River are the pumas, lava stone material Cloud blower Tube pipes styles such as this one above from the Dr HH Stuart collection. Right: This Elbow pipe may very well be the earliest of its type ever found on the river. This example was found by Ernie Cowles at the Condon site at a three-foot level which dates it pre-contact period

COLUMBIA RIVER PIPES



An excellent example of the artistic style, this Elbow pipe exhibits a stylized salmon head bowl and geometric designs along the stem. (Berreth Collection, Photo by Mark Berreth)

The "Tube Pipe" style and its variants, including the "Wine Glass" style, are some of the most common as they were made over a period of thousands of years. Due to contact with Europeans, new diseases and sickness that ran rampant thru the Northwest, the Elbow pipe emerged at a time when most Columbia River tribes and their way of life was quickly disappearing. As a result, the Elbow pipe style is shaped like the modern tobacco pipe and tends to be an extremely rare find along the river (most of the Northwest for that matter).

All Pipes tend to be very scarce on the lower Columbia River west of the Cascade Mountain Range and a possible scenario for this is many of those would have been made of wood from the abundant forests that blanked the area. Due to the harsh, moist environment, these perishable artifacts would have decomposed over time. Some of the early explorers of the Fur Trade era have written about the wooden pipes that were once used by the Chinook Native tribes in the area.



Wineglass Tube Pipe found on the Mid Columbia River. Found by Harry Bowen and pictured in "Stone Age on the Columbia River.

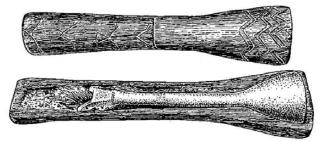
COLUMBIA RIVER PIPES



A spectacular Museum quality Tube Pipe exhibiting red ochre paint embedded in the classic Columbia River design. This is also one of the top examples ever found on the Columbia River. Found by Ed Stevens

Unfortunately I was unable to include a photo of the most spectacular pipe ever found on the Columbia River, which is known as the "Moses Coulee" pipe. Moses Coulee was an ancient bed of the Columbia, cut during the ice age, near Wenatchee, Washington, and named after a prominent Native Chief. Eight miles up the coulee is a large cave that was cleaned out with a team and scraper by a local rancher so it could be used for storage. Four and a half feet below the surface and hidden in the cave wall, the rancher found a carved wooden box wrapped in a bundle of sagebrush bark. Upon opening the box he found a magnificent, highly polished pipe with a large bell shaped bowl. This pipe was eight inches long and originally published in screenings and later in the Emory Strong book "Stone Age on the Columbia River". This was the first time a pipe was ever found preserved and protected by a wooden case. The Case itself

was eleven inches long hollowed out to fit the pipe and had human like figures and v-shaped designs carved on the outside. It had been darkly stained from considerable use polish, but remained in perfect museum quality condition due to the dry cave conditions it was preserved in for so many years.





COLUMBIA RIVER PIPES



Museum Grade Steatite Inlaid Elbow Style Pipe, and carved elbow pipe with metal band that was colleted in the 1950's from the Yakima Reservation by Ernie Cowles



This Columbia River dark green steatite Elbow Pipe exhibits no damage other than some teeth marks on the stem and some ancient rim marks from taping the bowl to remove old tobacco. Ex-Ed Stevens Collection

COLUMBIA RIVER PIPES



This super fine example was originally published in May of 1957 in OAS Screenings and came from the mouth of the Snake River. It has a band of copper at the base of the bowl and stains on the stem from three other bands that have long since corroded away.



Another outstanding museum quality carved and polished steatite Tube Pipe example. This is a larger size measuring four and a half inches long and does not appear to contain any usage wear or damage. Found by Ed Stevens in Kittitas County Washington in the early 1960's and now resides in the Hardie Collection.



Very worn carved designs on this fine example that has a damaged and cracked bowl. Hole was drilled in stem and used with a leather strap to ease carrying. Ex-Linda Borden Collection

COLUMBIA RIVER PIPES



A large display of pipes, many of which are from the Columbia River, on Display at the Late Gene Favell's Museum in Klamath Falls Oregon. Some very amazing examples are displayed there and well worth seeing in person if you ever there including the Famous Basket Maker Pipe.

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Author: Tony Hardie

- Photography: Tony Hardie photographed all the Pipes and artifacts pictured in this article, except where specifically noted otherwise.
- Edited: David Heath



COLUMBIA RIVER COPPER



Fur Trade Copper (1750s - 1850s) - Native peoples of the Columbia River likely first encountered Spanish and Russian fur traders in the mid 1700s. The Hudson Bay Fur Trading Company established a post first in Astoria Washington and later moved to Vancouver Washington. These early explorers and traders brought with them many different items to trade with Native Peoples for furs. Highly prized were sheets and items made of copper, coins and cloth to name a few.

Native Peoples of the Columbia River who had contact with early fur traders included the Clatsop and Chinook. They would trade for copper; crafting ornaments such a pendants and rolled tube beads. Metal coins, tokens and buttons were often perforated and made into a pendant.

Shown above are copper pendants, copper rolled tube beads, fur trade era points, tokens and a rare Phoenix Button.

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